Bonneville Power Administration
Fish and Wildlife Program FY99 Proposal

Section 1. General administrative information

Restore And Enhance Anadromous Fisheries & Habitat In Salmon Creek

Bonneville project number, if an ongoing project 9604200

Business name of agency, institution or organization requesting funding
Colville Confederated Tribes

Business acronym (if appropriate) CCT

Proposal contact person or principal investigator:

Name Hilary Lyman, Watershed Coordinator
Mailing Address Colville Tribes Community Center, Box 862
City, ST Zip Omak, WA 98841
Phone 509/826-1294
Fax 509/826-2292
Email address okriver@televar.com

Subcontractors.

Organization	Mailing Address	City, ST Zip	Contact Name
Okanogan Irrigation District	37A Douglas Road	Okanogan WA 98840	Paul Frazier

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

Sections 7.6B.1, 7.7B, 7.8

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

Upper Columbia Summer Steelhead ESA Listing

Other planning document references.

Wy Kan Ush Me WA Kush Wit, Volume II Sub-basin Plans, Okanogan River, Recommended Actions, Subset 2, Page 91

NWPPC Sub-basin Plans, Okanogan Basin

Salmon Creek Watershed Planning Project, a part of the Okanogan Sub-Basin, has received support from the following agencies who would like to participate in habitat restoration planning: Bureau of Land Management, U.S. Dept. of Fish & Wildlife, Washington State Dept of Fish & Wildlife, Okanogan Irrigation District. Supporting documentation enclosed.

Subbasin.

Salmon Creek, a tributary of the Okanogan River

Short description.

Develop partnerships with pubic and private entities within Salmon Creek that enable the successful re-establishment of anadromous fish runs to the creek. Plan and undertake projects that enhance fisheries habitat on public and private lands.

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		Resource mgmt		Fish disease
		X	Planning/admin.		Supplementation
			Enforcement		Wildlife habitat en-
			Acquisitions		hancement/restoration

Other keywords.

Fish habitat enhancement, fish habitat restoration, fish passage improvements

Section 3. Relationships to other Bonneville projects

Project #	Project title/description	Nature of relationship

Section 4. Objectives, tasks and schedules

Objectives and tasks

Obj 1,2,3	Objective	Task a,b,c	Task
1	Continue partnership with irrigation district by investigating methods of saving water in order to increase instream flows	a	Carryout workplan with irrigation district
		b	Investigate methods of irrigated agricultural water savings and alternatives to current water delivery practices
		c	Investigate water right purchasing and marketing
2	Continue partnership with the Town of Okanogan	a	Investigate sources of water right transfers and potential spring development in order to increase instream flows
3	Hire consultants with technical expertise	a	Investigate hydrological scheme of Salmon Creek and determine potential sources of spring development or aquifers not in continuity with Salmon Creek
		b	Investigate methods of agricultural irrigation practices that may result in water savings
		c	Investigate potential economic impacts to community & irrigation district of changes in current water management in Salmon Creek
4	Develop partnership with Bureau of Reclamation	a	Identify fish passage improvements at Conconully and Salmon Lake Reservoirs and irrigation district diversion dam
5	Develop partnerships with private landowners in Salmon Creek	a	Identify cost-sharing programs available through other agencies that improve riparian habitats by partnering with private landowners
		b	Partner with agencies and conduct public education workshops to entice private landowners along Salmon Creek to improve riparian

			conditions on private lands
		c	Identify private landowners in Salmon Creek and develop two demonstration projects on private lands by partnering with landowners and agencies to cost-share, plan and improve riparian habitat along Salmon Creek

Objective schedules and costs

Objective #	Start Date mm/yyyy	End Date mm/yyyy	Cost %
1	10/1998	9/1999	20.00%
2	10/1998	9/1999	20.00%
3	10/1998	9/1999	20.00%
4	10/1998	9/1999	20.00%
5	10/1998	9/1999	20.00%
			TOTAL 100.00%

Schedule constraints.

Completion date.

12/2001

Section 5. Budget

FY99 budget by line item

Item	Note	FY99
Personnel	Watershed Coordinator & Office Assist.	$39,000
Fringe benefits	Salaries @ 30%	$11,700
Supplies, materials, non-expendable property		$1,500
Operations & maintenance		
Capital acquisitions or improvements (e.g. land, buildings, major equip.)		
PIT tags	# of tags:	
Travel		$13,000
Indirect costs	39.2% of salaries	$15,288

Subcontracts	Irrig. Dist. $50k/Consultants $50k	$100,000
Other	Riparian Habitat Improvements	$69,512
TOTAL		$250,000

Outyear costs

Outyear costs	**FY2000**	**FY01**	**FY02**	**FY03**
Total budget	$150,000	$150,000		
O&M as % of total				

Section 6. Abstract

The watershed coordinator spent 1997 and part of 1998 building support for habitat restoration in a tributary of the Okanogan River, Salmon Creek. The coordinator met with key stakeholders numerous times to explain why Salmon Creek was such a good candidate for restoration activities. In addition, the coordinator cultivated a relationship with the most important stakeholder group in Salmon Creek, the Okanogan Irrigation District, who divert 100% of the instream flow into their irrigation canal except during periods of high spring runoff. The district also operates a diversion dam that is a barrier to fish passage. These two barriers make up the greatest percentage of impediments to anadromous fish in Salmon Creek; other problems are related to activities on private lands—overgrazing, lack of vegetative cover, high sediment load (cause unknown).

In early 1998 a memorandum of understanding between the irrigation district and the tribes was developed to form a partnership to address improving instream flows. A workplan and timeline for completion was agreed upon by both partners. The expected outcome will be a water management plan for the irrigation district that would provide instream flows suitable to re-establish anadramous fish runs. The water management plan will be completed in 1999. Funding is requested through this proposal to enable the irrigation district to hire planning and engineering staff and provide counsel on legal issues associated with any changes to current water distribution ($50,000).

Other agencies with management responsibilities for natural resources will work with the tribes to address increasing instream flows, streambank stabilization problems, sedimentation issues and increasing vegetative cover along the riparian corridor. We aim to partner with the U.S. Fish & Wildlife Service to educate private landowners about cost-sharing programs available to address these issues and to carry out two demonstration projects. In addition we aim to contract with the Natural Resource Conservation Service to conduct a hydrological study that looks at land use practices that negatively affect instream flows. A prescriptive report detailing projects to be undertaken and how their effectiveness will be monitored and evaluated will be included in the study. Funding requested for this element of the proposal totals $50,000.

Section 7. Project description

a. Technical and/or scientific background.

Background on Salmon Creek

Salmon Creek, a tributary of the Okanogan River, is located in north central Washington along the eastern slopes of the North Cascades and west of the Okanogan River. It lies about 22 miles south of the Canadian-United States border and 15 miles northwest of Omak, Washington.[1] The Salmon Creek Watershed encompasses 112,353.68 acres. The land ownership breakdown in acres is as follows[2]:

58,539.63	U.S. Forest Service
14,372.49	Washington Dept. of Natural Resources
7,691.43	Bureau of Land Management
1,802.00	Washington Dept. of Fish & Wildlife (Recreation)
99.07	Washington State Parks
29,849.05	Private/other

A land ownership map is enclosed.

The upper Salmon watershed includes North Fork Salmon, West Fork Salmon and South Fork Salmon Creek subwatersheds. The South Fork Salmon Creek flows into the West Fork about one mile southwest of Conconully at river mile 1.3 of the West Fork. The West Fork and North Fork both flow into Conconully Reservoir, and Salmon Creek flows out of the reservoir to the southeast into the Okanogan River at river mile 25.7. All surface water from the watershed flows into either Conconully Lake or Conconully Reservoir, which are the main water impoundments for the watershed and distribution points for the Okanogan Irrigation District.[3].

Historically, both steelhead and spring chinook runs existed in Salmon Creek. The creek was a unique and productive system before it was emasculated. "Prior to the construction work of the Bureau of Reclamation in 1910, Salmon Creek had a very significant fishery value. Salmon Creek's greatest fishery value, however, was attributed to the excellent runs of steelhead trout and spring chinook salmon which utilized its extensive spawning areas. The anadromous fish runs which frequented Salmon Creek utilized practically the entire stream system, ascending both west and south forks. There is little doubt that the runs were of considerable size. Numerous fish traps were installed and operated by members of the nearby Okanogan Indian Tribe. Local white residents took the fish in considerable numbers for home consumption. With the exception of limited spawning areas in Canada above Lake Osoyoos and a few small bars in the lower Okanogan River

near Monse, Washington, Salmon Creek had the only other suitable spawning grounds of any size in the entire Okanogan system. It is known that anadromous fish ascended to the upper headwaters of Salmon Creek as late as 1908. In that year a fish ladder was constructed by the Bureau of Reclamation at the diversion weir. Until 1910, water was available to fish below the diversion weir, but with the completion of Cononoully Dam and the subsequent filling of the reservoir, all the water not needed for irrigation was impounded by the dam. This caused the 5-mile section of stream below the weir to go completely dry. Local residents reported that they found large numbers of dead salmon and steelhead trout in the dry streambed below the weir in 1910, the last year in which anadromous fish ascended Salmon Creek. It was reported that the fish ladder was removed several years later. Since that time there has been only one year in which there was sufficient wataer to spill over the diversion weir."[4]

Historically, water has been used for many purposes including transportation, mineral exploration, irrigation, domestic use, livestock and recreation. The hydrologic regime of the Salmon watershed has been continually altered since the arrival of Euroamericans to the area. In 1886 water was diverted from Salmon Creek to irrigate agricultural lands. Demand increased, and in 1910 a dam was completed for additional irrigation water. During the dam construction, water was diverted from both the South and West Fork Salmon Creeks for excavation purposes. In addition, in 1921 a dam was completed on Salmon Lake (currently known as Conconully Lake) to increase the water storage capacity. The primary use of the reservoirs is for irrigation. Recreation homes also exist on the lake.[5]

Currently water uses in the basin include irrigation, domestic use, livestock and recreation. Approximately 14,400 acre-feet of water is stored in Conconully Reservoir and an additional 1,500 acre-feet of water in Salmon Lake for use in irrigation and recreation [6].

No waterbody within the Salmon watershed was listed in Washington State Department of Ecology's 1996 Proposed Section 303(d) List (Impaired and Threatened Waterbodies Requiring Additional Pollutions Controls). This indicates that waterbodies within the Salmon Watershed are expected to meet state surface water quality standards after implementaiton of technology-based controls. Site specific water quality information was unavailable; water quality information is expected to be collected during a basin-wide study of the Okanogan River by the Okanogan County Conservation District.[7]

Irrigation:

Water stored in the Cononully and Salmon Lake Reservoirs is released and flows approximately 14 miles southeast where it joins the Okanogan River. At approximately 11 miles below the Conconully Reservoir, the Okanogan Irrigation District diverts 100% of the streamflow. All water within the creek is diverted for irrigation purposes except during the years of high spring runoff, where the overflow runs down the creek to the Okanogan River. Otherwise the creek is barred from flowing freely into the Okanogan River. The lower three miles of the creek is dewatered most of the year. This provides a

barrier to anadromous fish who may again use the upper portions of Salmon Creek for spawning and rearing habitat. The other major barrier to anadromous fish is the irrigation district's diversion dam. Presently its height and the lack of a plunge pool make it impossible for fish to make it over the dam to access upstream spawning and rearing habitat.

Partnerships

During the year 1997, the watershed coordinator initiated meetings and began developing relationships with key constituents in the Salmon Creek Watershed. At the coordinator's initiation and persistence, the Okanogan Irrigation District expressed an interest in working cooperatively with the Colville Tribes and other agencies to develop a water management plan that enables steelhead access to the upstream spawning habitat. The irrigation district requested a meeting between them and the Colville Tribes, the Washington State Dept. of Fish and Wildlife, the U.S. Dept. of Fish and Wildlife, the Bureau of Land Management, the Bureau of Reclamation, and the National Marine Fisheries Service. The purpose of the meeting was to identify how existing laws and the newly-listed steelhead under the ESA impacted the irrigation district. This meeting was a very positive first step towards understanding where the agencies and tribes stood relative to restoring anadromous fish runs in Salmon Creek. It was also an opportunity for the irrigators to learn that the agencies and tribes firmly believed that fish runs and agriculture could co-exist. Over a period of several months the irrigators evolved in their understanding that recovering fish runs did not mean that they would lose their water rights or go out of business.

1998-1999 Workplan

During 1998 the watershed coordinator expects to develop partnerships with the Okanogan Irrigation District and private landowners within Salmon Creek. Since approximately 85% of the habitat barriers in the creek stem from the irrigation district's management of the water resources, the coordinator has a two-phased approach to undertaking habitat restoration in Salmon Creek. A significant portion of the year will be spent working with the irrigation district. A separate approach to working with individual landowners will take place simultaneously.

Partnerships with the Okanogan Irrigation District

The irrigation district is interested in establishing a cooperative working relationship with agencies and the Colville Confederated Tribes to develop a water management plan that provides sufficient instream flows for steelhead. The Colville Confederated Tribes and the Okanogan Irrigation District will draft a Memorandum of Understanding (MOU). The MOU should include:

- Parties to the agreement
- Goals and objectives of the partnership, including finished product(s)
- Timeframe for completion
- Species of fish to be included in the negotiations (the possible listing of spring chinook may lead the partners to develop a recovery plan for this species as well)

A technical committee will be convened to research water requirements for fish and irrigation needs. The technical committee may be comprised of anadromous fish biologists representing the Bureau of Land Management, the Colville Confederated Tribes, and the Washington State Dept. of Fish and Wildlife, and the U.S. Fish & Wildlife Serivce. Additional technical expertise may be provided by engineers and hydrologists from the Bureau of Reclamation and engineers who manage the irrigation district as well as staff of the water resources division within the Washington Dept. of Ecology. Further additional technical assistance may be provided by including Okanogan County planners and City of Okanogan Public Works Managers. Additonal technical expertise not available through agencies will be contracted by the Colville Tribes with planning funds available through the BPA contract.

Partnerships with Private Landowners

In addition to the partnership with the irrigation district, we will attempt to develop partnerships with individual landowners on a project-by-project basis. In order to obtain a holistic approach to geomorphological characteristics of Salmon Creek, we will contract with the Natural Resource Conservation Service to conduct a study of the lower 14 miles of Salmon Creek to discern problems associated with sedimentation, stream bank erosion, impacts from logging and other land use activities on private lands. A report outlining remedies to impacts on fish habitat will be produced. This report will identify existing funding programs and technical assistance available through U.S. Fish and Wildlife, the Natural Resource Conservation Service, and the Okanogan County Conservation District that enable habitat restoration projects to be undertaken. Once the report is completed we will contact private landowners and make site visits to discuss possible projects on private lands. After obtaining permission from these landowners, we will compile a detailed report of projects that will benefit fish habitat in the creek and match funding programs to projects identified. A public workshop will be held once the information is collected and presented to landowners within the watershed. Information on cost-sharing programs and how these programs can benefit private landowners will be disseminated. We will identify two landowners who are willing to initiate riparian improvement projects on their lands that will serve as demonstration projects to other Salmon Creek landowners. Once the work is undertaken and completed, tours will be offered to other Salmon Creek residents so that they may learn from their neighbors' experiences.

b. Proposal objectives.

Salmon Creek Final Products

1. A signed Memorandum of Understanding between the Okanogan Irrigation District and the Colville Confederated Tribes
2. A water management plan for the Okanogan Irrigation District that effectively provides for the re-establishment of steelhead to Salmon Creek. The plan will outline alternatives for how instream flows will be increased, the time(s) of year that flows will be improved, and how fish passage will be provided over existing barriers. Project costs and funding sources for implementation will also be identified.

3. A report identifying habitat problems associated with the riparian corridor on private lands in Salmon Creek. Recommendations to improve these conditions, landowners will be identified, proposed projects will be outlined with cost estimates and funding sources for each project.
4. A monitoring and evaluation plan to track successes and/or failures.
5. A report identifying funding sources for all proposed projects and alternatives

c. Rationale and significance to Regional Programs.

Salmon Creek is part of the Okanogan River Focus Watershed. The Focus Watershed program is derived as mitigation for fish losses at Grand Coulee Dam. Salmon Creek, a tributary of the Okanogan River, was chosen as a more focused approach to recovering anadromous fish in the Okanogan Basin due to the relative high quality habitat that already exists and the cool water derived from headwaters above 8,000 feet elevation. Anadromous fish existed is large numbers prior to the building of the Conconully and Salmon Lake Reservoirs in the early 1900s. Conconully used to be named Salmon City. The lack of anadromous fish currently in the Salmon Creek system stems from man-made barriers and political decisions made over 60 years ago. See attached letters of support from numerous fish biologists and agencies that enthusiastically endorse the Colville Tribes' efforts to re-establish anadromous fish runs in Salmon Creek. In addition, citations from early settlers are provided to add further proof that many fish runs existed prior to the building of the Conconully Reservoirs and Okanogan Irrigation District's diversion dam.

d. Project history

The Salmon Creek project began as BPA Project No. 96-042-00 and was titled Okanogan River Focus Watershed. The watershed coordinator was hired in January 1997. In February a project office was set-up with office furniture and computer equipment purchased. The coordinator spent the first two months making contacts with agencies, fish biologists, and local governments to discern how the Okanogan River Focus Watershed project would tie into regional and local efforts already underway. Another watershed study on the Okanogan River was already being undertaken jointly by Okanogan County and the Okanogan Conservation District; this was a water quality study. The joint County/Conservation District water quality study was comprised of a Stakeholder Advisory Committee (SAC) representing different interest groups within the watershed and a Technical Advisory Committee (TAC), representing agencies with management responsibilities throughout the watershed. The TAC researches issues and makes recommendations to the SAC. When the SAC has deliberated and arrived at its conclusions, it will be submitted to an oversight committee made up of the three Okanogan County Commissioners and five Conservation District Board of Supervisors.

After much research on the water quality study already underway, the watershed coordinator concluded that to begin another water resource planning process in the same

watershed would be duplicitous and may be perceived by the public as competing or conflicting with the study already underway. There would have been several areas of overlap between the two studies. However, it would be advantageous to later conduct a focused study on restoring anadromous fish runs in the Okanogan Basin after the water quality study is concluded. Much of the data collection that would be required for a focused study on anadromous fish will be compiled in the water quality report. Therefore, after consultation with the BPA Fish and Wildlife Program Manager, the Colville Tribes changed the focus from the Okanogan River to Salmon Creek, a tributary of the Okanogan River. The rationale for this switch came from numerous discussions with area fish biologists, all of whom concluded that Salmon Creek contained the best possible conditions for re-establishing anadromous fish runs (see letters of endorsement enclosed).

Beginning in April 1997, the watershed coordinator began making contacts within the Salmon Creek Watershed to discuss the proposed formation of a Salmon Creek Watershed Council. Contacts were made with the two towns in the watershed: Conconully and Okanogan, the Okanogan County Commissioners, the Conservation District Board of Supervisors, in addition to the Okanogan Irrigation District, a local group called Save our Conconully, and other individuals.

Perhaps the most significant development in 1997 was the change in attitude by the Okanogan Irrigation District, to whom 85% of the habitat barriers in Salmon Creek can be attributed. In the past five years, the irrigation district had been approached at different times separately by fish biologists from the Colville Tribes, the Bureau of Land Management and the Dept. of Fish and Wildlife in attempts to seek some cooperative approach to restoring anadromous fish habitat in Salmon Creek. None of these attempts at a cooperative relationship were successful. However, the proposal to form a watershed council in the creek, along with the recent listing of steelhead, gave the district reasons to take a more proactive approach. They requested a meeting with NMFS, USF&W, WDF&W, The Colville Tribes, the PUD to better understand the impact of the listing on them and what rights, if any, agencies or tribes were claiming to their water stored in the Conconully Reservoirs. This positive meeting left the irrigation district with a clear understanding that while there were laws to protect and restore habitat, that it was not the intent of any of the agencies to shut down their livelihoods but to find a way for fish and agriculture to coexist. The irrigation district, now wanting to be proactive, has hired a former manager of the district to represent the district and work with the tribes and other agencies in a cooperative manner.

During this same period a solicitation for proposals for a process facilitator was published, and a non-profit firm specializing in natural resource dispute resolution was hired (the Northwest Renewable Resources Center). With the Northwest Renewable Resources Center on board, they helped design and facilitate a public meeting that was held on October 6th, 1997. The meeting was attended by 200 people. The meeting informed people why a watershed council was being proposed, how it fit into the BPA fish and wildlife program through the NWPPC and CBFWA, why the legislature enacted

a watershed planning law, the possible impacts of the ESA on individuals and public agencies and how important it was for people to become involed. The public was invited back to a second meeting two weeks later to help form the watershed council. However, due to numerous factors, the general feeling of those living within the watershed was to block the formation of a watershed council. Possible reasons for this are mistrust of government, feeling threatened that livelihoods would be destroyed, historic views about Native American fishing rights, public perceptions about ocean conditions, harvests, areas of listed species in one part of the system but not another, etc.

After the second public meeting the coordinator began to meet with more interest groups and individuals to explain details of the watershed planning process. While she gained much support in these smaller meetings, the Colville Tribes concluded that the overwhelming public feeling was to block the formation of a watershed council. However, with the support of the irrigation district, the Colville Tribes, after consulting with BPA and the NWPPC, agreed to move forward by developing partnerships with groups or individuals on a project-by-project approach. The major partnership is with the irrigation district, as was described above. The ability to partner with the irrigation district in a collaborative approach would provide the same outcome of the watershed planning process—increase instream flows and improve habitat for anadromous fish in Salmon Creek with the support of the major interest groups in the watershed. The workplan for 1998-1999 reflects this newly-adopted approach.

e. Methods.

f. Facilities and equipment.

No additional equipment or facilities will be purchased with 1999 project funds.

g. References.

1. Okanogan National Forest, Tonasket Ranger District. April 1997. Salmon Watershed Assessment, I-1.
2. Washington State Dept. of Natural Resources, GIS Map of Salmon Creek Land Ownerships, June, 1997.
3. Okanogan National Forest, Tonasket Ranger District. April 1997. Salmon Watershed Assessment, III-1.
4. U.S. Fish and Wildlife Service, Preliminary Evaluation Report, January 1949—(fish and wildlife resources in the area of the Okanogan Irrigation Project).
5. Okanogan National Forest, Tonasket Ranger District. April 1997. Salmon Watershed Assessment, III-1
6. Yates, H.A. 1968. A Pioneer Project. Metropolitan Press. Portland, Oregon.
7. Okanogan National Forest, Tonasket Ranger District. April 1997. Salmon Watershed Assessment, III-4

Section 8. Relationships to other projects

Section 9. Key personnel

Hilary Lyman, Watershed Coordinator, Colville Confederated Tribes Fish & Wildlife Department, 1 FTE/40 hours per week. Hilary possesses six years of strong watershed coordination experience. Ms. Lyman will act as project manager.

Chris Fisher, Anadromous Fish Biologist II, Colville Confederated Tribes Fish & Wildlife Department, .25 FTE/10 hours per week (Mr. Fisher's salary will not be paid out of this proposal).

Resumes attached.

Section 10. Information/technology transfer

Public workshops will be held to explain alternatives to increasing instream flows. Additional public workshops will be held to entice private landowners to learn about government programs that provide cost-share and matching grants to stabilize stream banks and control erosion. The coordinator will present at watershed planning conferences to explain lessens learned in Salmon Creek and how it might be relevant to other watershed planning programs.