
PART I - ADMINISTRATIVE

Section 1. General administrative information

Title of project

Improvement Of Anadromous Fish Habitat And Passage In Omak Creek

BPA project number: 20037

Contract renewal date (mm/yyyy): **Multiple actions?**

Business name of agency, institution or organization requesting funding

Colville Confederated Tribes

Business acronym (if appropriate) CCT

Proposal contact person or principal investigator:

Name Christopher J. Fisher

Mailing Address P. O. Box 862

City, ST Zip Omak, WA 98841

Phone (509) 422-7427

Fax (509) 422-7428

Email address Anadromo@televar.com

NPPC Program Measure Number(s) which this project addresses

4.1A, 4.1B, 7.6a, 7.6a.2, 7.6B.1, 7.6B.3, 7.6B.4, 7.6B.5, 7.6c, 7.6D

FWS/NMFS Biological Opinion Number(s) which this project addresses

new project

Other planning document references

Omak Creek Watershed Plan/Environmental Assessment (November 1995); Columbia Basin System Planning Production Plan for Salmon and Steelhead - Methow and Okanogan Rivers Subbasin (1990)

Short description

This project would include the removal of railroad debris and rubble and allow anadromous fish to access about 26 miles of spawning and rearing habitat. Also, to include improvements in land management activities and instream restoration practices.

Target species

Upper Columbia River summer steelhead

Section 2. Sorting and evaluation

Subbasin

Upper Mid-Columbia – Okanogan

Evaluation Process Sort

CBFWA caucus	Special evaluation process	ISRP project type
Mark one or more caucus	If your project fits either of these processes, mark one or both	Mark one or more categories
<input checked="" type="checkbox"/> Anadromous fish <input type="checkbox"/> Resident fish <input type="checkbox"/> Wildlife	<input checked="" type="checkbox"/> Multi-year (milestone-based evaluation) <input checked="" type="checkbox"/> Watershed project evaluation	<input type="checkbox"/> Watershed councils/model watersheds <input type="checkbox"/> Information dissemination <input type="checkbox"/> Operation & maintenance <input type="checkbox"/> New construction <input type="checkbox"/> Research & monitoring <input checked="" type="checkbox"/> Implementation & management <input type="checkbox"/> Wildlife habitat acquisitions

Section 3. Relationships to other Bonneville projects

Umbrella / sub-proposal relationships. List umbrella project first.

Project #	Project title/description

Other dependent or critically-related projects

Project #	Project title/description	Nature of relationship
9609200	Restore and enhance anadromous fish populations in Salmon Creek	Restoration of Upper Mid-Columbia summer steelhead

Section 4. Objectives, tasks and schedules

Past accomplishments

Year	Accomplishment	Met biological objectives?

Objectives and tasks

Obj 1,2,3	Objective	Task a,b,c	Task
1	Provide access for anadromous fish upstream of Mission Falls, Omak Creek	a	Remove rubble, cribbing and railroad ties from stream channel at Mission Falls.
2	Restore fish habitat via reduction of impacts	a	Identify areas of poor land management/practices
		b	Implement instream restoration structures for short-term solutions
		c	Modify or initiate improved land management techniques or strategies to reduce adverse affects to Omak Creek.

Objective schedules and costs

Obj #	Start date mm/yyyy	End date mm/yyyy	Measureable biological objective(s)	Milestone	FY2000 Cost %
1	8/1999	9/2000	adult steelhead observed upstream of Mission Falls	X	60.00%
2	6/1999	9/2008	Increased canopy closure/reduced water temperatures/reduced sediment yield/increased number of quality pools (> 1.0 m)/reduced fine sediment.	X	40.00%
				Total	100.00%

Schedule constraints

National Marine Fisheries Biological Opinion

Completion date

2008

Section 5. Budget

FY99 project budget (BPA obligated):

FY2000 budget by line item

Item	Note	% of total	FY2000
Personnel	2 Part Time Employees	%8	30,000
Fringe benefits	30% of salary (based upon 1998 figures)	%2	9,000
Supplies, materials, non-expendable property	Hand tools, gloves, hip boots, etc.	%0	500
Operations & maintenance	Fuel, Vehicle servicing	%0	2,500
Capital acquisitions or improvements (e.g. land, buildings, major equip.)	none		0
NEPA costs	Assisting NMFS in Biological Opinion	%0	1,000
Construction-related support	none		
PIT tags	# of tags: none		
Travel	Updates and presentations	%0	2,000
Indirect costs	39.2% of salary (based upon 1997 figures)	%3	11,760
Subcontractor	heavy equipment and operator	%83	292,901
Other	none		
TOTAL BPA FY2000 BUDGET REQUEST			\$349,661

Cost sharing

Organization	Item or service provided	% total project cost (incl. BPA)	Amount (\$)
Natural Resource Conservation Service	Engineering design for barrier removal and implementation of restoration structures and land management strategies	%50	350,000
Total project cost (including BPA portion)			\$699,661

Outyear costs

	FY2001	FY02	FY03	FY04
Total budget	\$55,760	\$55,760	\$55,760	\$55,760

Section 6. References

Watershed?	Reference
<input checked="" type="checkbox"/>	Natural Resource Conservation Service (NRCS). 1995. Omak Creek Watershed Plan/Environmental Assessment. USDA. Spokane, Washington.
<input type="checkbox"/>	Fisher, C. J. and L. Feddersen. 1998. An estimate of quantity of spawning habitat and associated embryo production for summer steelhead and spring chinook in Salmon Creek, Washington. Colville Confederated Tribes Fish and Wildlife Dept. Nespelam
<input type="checkbox"/>	Mullan, J. W., K. R. Williams, G. Rhodus, T. W. Hillman, and J. D. McIntyre. 1992. Production and habitat of salmonids in mid-Columbia River tributary streams. U. S. Fish and Wildlife Service. Monograph 1.
<input type="checkbox"/>	Hansen, J. 1992. Omak Creek fish spawning stream substrate evaluation. Colville Confederated Indian Tribes Fish and Wildlife Department. Nespelam, Washington.
<input type="checkbox"/>	Cederholm, C. J., L. M. Reid, and E. O. Salo. 1981. Cumulative effects of logging road sediment on salmonid populations in the Clearwater River, Jefferson County, Washington. Pages 38-74 in Proceedings, conference on salmon spawning gravel: a renewabl
<input type="checkbox"/>	Platts, W. S. 1991. Livestock grazing. American Fisheries Society Special Publication 19:389-423.
<input type="checkbox"/>	

PART II - NARRATIVE

Section 7. Abstract

This project is part of a 10 year project which stemmed from the Omak Creek Watershed Plan/Environmental Assessment (NRCS 1995). The evaluation and implementation based on recommendations from the watershed analysis is a cost-share project between the Colville Confederated Tribe and the Natural Resource Conservation Service.

Historically Omak Creek, particularly the Mission Falls area, has cultural significance to the Colville Confederated Tribes. Mission Falls was an area where native people fished for salmon and steelhead, an endangered specie determined by NMFS, and photos from the early 1900's depict salmon drying racks and catch nets.

A railroad system was constructed along Omak Creek in the early 1900's. Rubble from the railroad construction has fall into the stream channel and created a barrier to

migrating anadromous fish, particularly summer steelhead. Removal of rubble and railroad material will allow summer steelhead to access approximately 26 miles of potential spawning and rearing habitat which has been inaccessible since the railroad was constructed in the early 1900's. Additionally, improving forestry practices and livestock grazing strategies within the watershed will improve water quality and fish habitat. The removal of railroad construction rubble will be conducted according to techniques determined by engineering personnel from the National Resource Conservation Service.

In addition, improvement in land management practices within the watershed will improve water quality and fish habitat. Improvement in forestry practices will include better road design and location, road obliteration and removal of improperly placed or failed culverts. Livestock management will include grazing strategies which will improve range condition and minimize impacts to aquatic resources.

Section 8. Project description

a. Technical and/or scientific background

This project would assist in the funding and implementation of certain aspects of the Omak Creek Watershed Plan/Environmental Assessment (NRCS 1995). The restoration of the Omak Creek Watershed is a cost share project between the Colville Confederated Tribe (CCT) and Natural Resource Conservation Service (NRCS). Omak Creek is located in Okanogan County, Washington, and is wholly contained within the reservation of the Confederated Tribes of the Colville Indians. The Omak Creek watershed has cultural significance to the twelve Colville Confederated Tribal Bands. Pictographs, depicting ancestral activities, are found throughout the watershed. Omak Creek itself, is a common cultural-use area for activities such as resource gathering, berry picking, ceremonial sweating, education, picnicing and fishing. Fishing was important in Omak Creek since evidence of fish drying racks and nets were quite apparent in early photographs. Due to barriers, mid-stream reaches have been inaccessible by anadromous fish and land management practices within the watershed have reduced the quality of fish spawning habitat. Therefore anadromous stocks have virtually been non-existent in Omak Creek since the early 1900's.

This project is, in part, to strengthen anadromous fish populations, particularly summer steelhead (listed as endangered), in the upper Columbia River Basin. Omak Creek was surveyed in 1992 by personnel of the CCT-Fish and Wildlife Department. The collected information estimated and described the physical condition of the instream habitat from the confluence of the Okanogan River upstream 12.2 miles (TFW Ambient Monitoring Stream Segment Summary 1992). The results of the survey indicated the habitat is in marginal condition, with most of the reaches evaluated for spawning habitat being embedded (Hanson 1992). Also, canopy closure exceeded 50% (57%) at one of the four reaches surveyed. Consequently, water temperatures have been measured greater than 75°F (lethal for juvenile steelhead) during 1997 and 1998 (CCT, Fish and Wildlife, unpublished data).

To improve the conditions in Omak Creek several restoration practices will be implemented. To minimize impacts caused by livestock incorporated by local ranchers,

riparian areas will be protected by fences, hardened rock crossings and spring development. To assist in the recovery of riparian habitat and actively eroding vertical banks, native woody plant species will be planted along non-vegetated and unstable banks and instream structures, such as inverted vortex rock weirs and point barbs, will be constructed.

Roads were also identified as being a sediment source to Omak Creek. Road management practices (seasonal closures, removal of drainage structures, road obliteration, etc.) will be addressed during interdisciplinary team meetings evaluating proposed timber management activities that lie within the Omak Creek watershed. Individual road sections and crossings for remedial action will be prioritized according to location of a waterway, condition of the road prism (actively eroding, poor drainage, etc.) and not prevent normal timber management activities (timber harvest, fuel management). These restoration practices will be undertaken over the next 10 years as scheduled in the Omak Creek Watershed Plan/Environmental Assessment (NRCS 1995).

Previously, Omak Creek flowed was routed under a timber mill site located near the confluence of the Okanogan River. At the mill site Omak Creek flowed through approximately 1800 feet of corrugated metal pipe. Although not researched or documented, this length of pipe is expected to have impeded the migration of steelhead to upstream reaches of Omak Creek. However, due to a change in ownership and a collapse of several sections of buried culvert, an open channel is currently being constructed away from the mill site. The cost of this project is estimated at approximately \$400,000 which is primarily funded by the private owner. The new channel is designed to mimic the natural channel pattern of similar valley forms that exist upstream. The new channel will allow for improved fish passage in the lower reach of Omak Creek. The construction of the new channel is expected to be completed by March 1999. Vegetation planting for the floodplain and riparian corridor is expected to be accomplished during June of 1999.

b. Rationale and significance to Regional Programs

The significance of this project is the restoration of summer steelhead in the Okanogan River Basin. The rationale is by re-establishing summer steelhead in Omak Creek, the summer steelhead population in the Okanogan River Basin will strengthen and ensure the resilience of the species. Also this is following the goal of the Habitat Conservation Plan for the Okanogan River which states, "In phase B, outplants to Omak Creek . . . will consist of the most genetically suitable smolts . . . of an adequate number to meet natural production capabilities."

c. Relationships to other projects

The Colville Confederated Tribes Fish and Wildlife Department has focused recovery efforts of anadromous salmonids in the Okanogan River Basin. To effectively recover anadromous salmonids in the Okanogan River Basin efforts have been focused on tributaries. Currently the CCT Fish and Wildlife have on-going projects in Salmon Creek (Restore and enhance anadromous fish populations and habitat in Salmon Creek, BPA project number 9604200) and Aeneas Creek as well as Omak Creek.

Salmon Creek is a unique tributary of the Okanogan River. Salmon Creek watershed is approximately 167 square miles in size, provides cool water (northeast aspect) in a basin that contains predominately warm water temperatures, and has historically contained in renowned runs of anadromous fish (Mullan et al. 1992). In 1916, a diversion dam was constructed for irrigation. The dam is located approximately three river miles upstream of the confluence. This lower reach is typically de-watered except during spring run-off. Consequently, anadromous fish have not inhabited Salmon Creek since the early 1900's.

Salmon Creek is a logical choice to re-establish anadromous salmonids in the Okanogan River. Spawning gravels have been surveyed and depicted quality spawning habitat (mean 27.6% fine sediment (6.35mm); Fisher and Feddersen 1998). Due to the lower 14 miles of Salmon Creek being charged by water which the Okanogan Irrigation District draws from a depth of approximately 80 feet from Conconully Reservoir water remain consistently low (max. temp. 67°F, 1997; max. temp. 65°F, 1998 (CCT, Fish and Wildlife Dept., unpublished data).

The CCT has also been assisting the Washington Department of Fish and Wildlife (WDFW) in restoration and conservation measures along Aeneas Creek. Aeneas Creek is a tributary to the Okanogan River and the confluence is south of Tonasket, Washington. Aeneas Creek contains cool water temperatures (max. 67°F during 1998, CCT, Fish and Wildlife, unpublished data). Conservation measures to protect this unique resource have included organizing a stream survey team made up of local landowners and constructing livestock exclusionary fences. Future measures will include incorporating grazing strategies, spring developments, and improving fish passage.

Cold water is an uncommon physical condition in the Okanogan River Basin. During 1998 water temperatures exceeded 80°F in the mainstem of the Okanogan River (CCT, Fish and Wildlife Dept., unpublished data). The current water temperature regime in the mainstem of the Okanogan River is not conducive to support native salmonids. To successfully re-establish native salmonids in the Okanogan River, cool water sources must be restored or protected. Therefore the restoration or conservation efforts directed toward the aforementioned tributaries will begin reducing water temperatures in the Okanogan River and improve habitat conditions for the restoration of anadromous salmonids.

Restoration efforts may also be beneficial to anadromous salmonids which use the Okanogan River as a migration corridor. Currently, sockeye (*Oncorhynchus nerka*) migrating up the Okanogan River, are often delayed by high water temperatures (> 21.5°F). When water temperatures dip the sockeye population swim the Okanogan River from the confluence to the north end of Lake Osoyoos (approx. 80 miles). By re-establishing flows in Salmon Creek, improving riparian habitat and increasing canopy closure along Omak Creek and conserving the water quality in Aeneas Creek, plumes of cold water would be delivered to Okanogan River and may provide thermal refuges for migrating sockeye. These cool water refuges may improve the survival of adults to current spawning areas and historical areas such as Skaha Lake which is proposed for evaluation of feasibility of re-introduction (Evaluate an experimental re-introduction of sockeye salmon into Skaha Lake).

d. Project history (for ongoing projects)

not applicable.

e. Proposal objectives

1) Provide access for anadromous fish upstream of Mission Falls, Omak Creek

Once barriers (rubble, railroad cribbing, etc.) are removed. Staff of the CCT-Fish and Wildlife Department will construct a temporary fish weir to monitor the effectiveness of the removal of the barriers and document returning adults.

2) Restore fish habitat via reduction of impacts -

Land management activities (i.e. forestry and livestock grazing) which are currently adversely impacting aquatic resources will be identified. Upon recognizing the impact (i.e. hoof shear along stream banks), recommendations will be developed to address the symptoms in the short term (spring box development, exclusion fences, riparian vegetation planting) and incorporate modifications in land management activities (i.e. grazing strategies (rest rotation, etc.)) which will promote environmentally sound practices and restoration techniques.

Such parameters as canopy closure, percent fine sediment, reduced water temperatures, and increases in pool habitat, will be monitored to identify if the implemented techniques are improving the physical conditions within Omak Creek and the connected tributaries.

f. Methods

During 1997 fish passage barriers along the Mission Falls reach (gorge) of Omak Creek were surveyed and identified by Colville Confederated Tribe Fish and Wildlife Department (CCT) and Natural Resources Conservation Service (NRCS) staff.

Engineers from the NRCS have produced a design to which identifies each individual boulder which is currently blocking fish passage. The preliminary design includes 28 sites which will include the removal of large boulders and railroad cribbing. Once the design has been reviewed the work will be contracted.

Surveys of waterways in the Omak Creek watershed will be conducted by both CCT and NRCS personnel. Surveys are expected to continue through 2008. Surveys will identify areas which adversely impact aquatic resources and water quality. Restoration efforts to address the identified impacts may include planting vegetation, exclusionary fencing, spring development, re-sloping stream banks, constructing revetments, or incorporating instream structures (inverted vortex weir, point barb, etc.). Typically more than one of these techniques will be recommended for one site.

Techniques used for the collection and planting vegetation will be based upon information from the NRCS, the CCT- Botany Department and the Washington State University Extension Service. Native plant stock and seeds will be used. Fencing and spring development will be constructed according to specifications developed by the

NRCS. Re-sloping stream banks will be based upon the slope of nearby banks which exhibit stability. Other techniques (i.e. revetments, point barbs) will usually be utilized in conjunction with bank sloping. Revetments, point barbs, inverted vortex weirs and other instream structures will be constructed according to specifications from the NRCS or diagrams of instream structures based upon Dave Rosgen. Material used to construct instream structures and the location will be determined by engineer(s) familiar with hydrological characteristics of Omak Creek.

To minimize the reoccurrence of the identified impacts and improve overall conditions of the watershed improved land management practices will be implemented. Initially these methods will be communicated to land owners or land management departments. These methods will include grazing strategies, forestry techniques and road density reduction or improvements.

Livestock grazing management techniques may include grazing strategies as described by Platts (1991). Other techniques may include providing hardened rock crossings, salting away from defined waterways and developing springs. Again, hardened rock crossings and spring developed would be according to specifications developed by the NRCS.

Many of the preferred forestry management techniques (winter logging, cable yarding, mechanical harvester) are currently being implemented to reduce ground disturbance. Also, CCT timber harvest proposals are regulated by clearcut equivalency factor which reduces the amount of vegetation that can be removed from a subbasin and consequently minimizes the impacts due to increased surface runoff.

Road density was estimated at 6.35 mi/mi² within the Omak Creek watershed (NRCS 1995). Cederholm et al. (1981) found when road density exceeded 4.0 miles/mi² erosion rate was up to 4 times the natural erosion rate. The average annual erosion rate on forestland was estimated at 1.2 tons per acre (NRCS 1995). Consequently, roads were identified as the primary source for most of the erosion.

g. Facilities and equipment

The facilities and staff of the Fish and Wildlife Department of the Colville Confederated Tribes and the Natural Resources Conservation Service office in Okanogan and Spokane, Washington, will be used for the continuation of this project. The use of heavy machinery for the removal of rubble along the Mission Falls reach, as determined by NRCS engineers, will be subcontracted.

h. Budget

The responsibilities for the personnel identified for this project would include collecting vegetative material, continuing surveys of reaches in Omak Creek and associated tributaries, coordinating labor crews to implement recommended actions and instructing labor crew members on the proper techniques to ensure success (vegetative planting, bank sloping, conifer revetment construction, etc.). The amount identified would

fund a fish biologist and fishery technician for approximately 6 months each. Fringe benefits is the current percentage for CCT tribal employees.

Supplies and materials would include hand tools such as shovels, post hole drivers, pliers, wire cutters, etc. Also supplies would include proper gear for labor crews such as hip boots and gloves. Other miscellaneous items may be a water cooler, insect repellent and a first aid kit.

Operation and maintenance was estimated based upon the amount of fuel used during the 1998 field season, while areas of the Omak Creek Watershed project were being implemented. During a six month period approximately \$1800.00 were spent on fuel. It is expected that at least 2 vehicle services would occur during the six month period (a total of \$150.00). An additional \$550.00 is requested for unforeseen breakdowns, purchase of tires, etc.

A recommendation by NRCS was to include a NEPA cost (\$1000.00). This is to cover the cost of assistance by the CCT provided to NRCS personnel in composing biological assessments (BA) required by the National Marine Fisheries Service.

Travel was based upon an estimate of four trips to Portland or other BPA or NPPC area office. The purpose of these meetings would be to provide updates or accomplishments for this project. The primary emphasis of the update would be directed toward the removal the fish passage barriers along the Mission Falls reach.

Indirect costs is the current percentage level for CCT tribal employees.

Currently the NRCS has developed a design to which identifies each individual boulder which is currently blocking fish passage. The method to be used to remove these obstructions is in essence decided by the contractor. The NRCS has estimated the cost of removal to be approximately \$585,802. Therefore, the CCT is requesting 50% of this total which is \$292,901.

Section 9. Key personnel

Robert Kilian is range management specialist employed by the Natural Resource Conservation Service and is specifically assigned to the implementation of restoration practices in the Omak Creek Watershed. His expertise is in plant identification, vegetation utilization, riparian vegetation planting and livestock management. FTE/160 hours/month.

Joe Lange is a civil engineer with experience in placement and construction of instream structures. His knowledge has been invaluable in the implementation and logistics of constructing and placing 6 instream structures in a lower reach of Omak Creek during the summer of 1998. FTE/16 hours/month.

Randy Kelley is the District Conservationist. He is the contracting officer for projects within the Omak Creek Watershed. He has coordinated efforts between Tribal efforts and the NRCS. FTE/32 hours/month.

The aforementioned personnel are not requested to be funded in this grant proposal.

Christopher Fisher is the Anadromous Fisheries Biologist for the Colville Tribe. He has provided input in planning and design of restoration activities and assisted in the

implementation of restoration practices. He has also assisted in writing the Biological Assessment these activities. His efforts towards this project would be funded by this proposal. FTE/80 hours/month.

One fishery technician position would be funded for six months (FTE/80 hours/month) by this grant proposal.

Robert Kilian

Range Management Specialist

USDA, Natural Resource Conservation Service
1251 South Second Avenue, Room 101
Okanogan, WA. 98840

Current Position: USDA, NRCS Range Management Specialist.
Government Representative to the Colville Confederated Tribes in
the implementation of the Omak creek Watershed Plan.

Responsibilities: Coordinate with the Colville Confederated Tribes on tribal and trust lands. Work directly with Fee and Allotment landowner's in developing conservation plans within the Omak Creek Watershed. Developing cost share contracts to assist in the implementation of land management practices. To ensure that all practices meet NRCS" standards and specifications.

Previous Positions: Range Management Specialist, USDA NRCS Watershed Planning, PL-566 Omak Creek. Okanogan WA. 1997- present

Soil Conservationist, CCCD / NRCS Project Coordinator, Lake Chelan Water Quality Project , Chelan, WA. 1995-97
Soil Conservationist, NRCS. Colfax WA. 1993-95
Soil Conservationist, NRCS. Colville WA. 1992-93

Education: B.S. Natural Resources Management 1993
Emphasis in Range and Wildlife Habitat
Arizona State University

Name: **Joseph M. Lange, P.E.**

Title: Agricultural/Civil Engineer

Degree: B.S. in Agricultural Engineering from WSU, 1988

License: Registered Professional Engineer in WA, 1995

Current Employer: USDA Natural Resources Conservation Service, 1987-Present

Current Responsibilities: Provide professional engineering assistance to NRCS personnel, landowners, groups, and units of government

Previous Employment: NRCS Mount Vernon Field Office, Civil Engineer, 10-90 to 7-98
NRCS Spokane State Office, Civil Engineer, 11-89 to 10-90
NRCS Spokane Area Office, Agricultural Engineer, 2-89 to 11-89
NRCS Lynden Field Office, Ag. Engineer Trainee, 5-88 to 8-88

NRCS Yakima Field Office, Ag. Engineer Trainee, 5-87 to 12-87

Expertise: Knowledge of engineering principles in hydraulics, hydrology, soil mechanics, and alluvial geomorphology.

Recent Job Completion's: Assisted in streambank restoration on 1 mile of Omak Creek.

Numerous streambank restoration projects in northwestern WA, including projects on the Suak, Dungeness and Nooksack Rivers. Meander reconstruction on Louie Lee Creek located west of Port Angeles.

Christopher J. Fisher

P. O. Box 862

Omak, WA 98841

Ph: (509) 422-7427

Education: University of Georgia
School of Forest Resources
B. S. Forest Resources 1990
minor Fisheries management

South Dakota State University
Dept. of Wildlife and Fisheries Sciences
M. S. Wildlife & Fisheries Science 1996
(Fisheries option)

Experience:

Job title: Anadromous Fisheries Biologist II
Employer: Colville Confederated Tribes, Nespelem, WA 99155

Duties: My duties include the management of anadromous fish stocks for population viability and subsistence for tribal members. I conduct and evaluate creel surveys, analyze catch data and develop regulations. I also participate planning and implementation for watershed restoration projects. I prepare correspondences and reports (monthly, quarterly, annually, and conditionally) needed to maintain good communications within the Tribal organization and Federal, State, and Tribal fishery agencies. I develop budget contract proposals, modifications, and reports as required by Tribal policy or established under contract agreements.

Job title: Fishery biologist
Employer: U.S. Forest Service, Okanogan National Forest (Jan 96 to Mar 97)
U.S. Forest Service, Boisen National Forest (Apr 94 to Nov 95)

Job title: Fishery technician
Employer: Idaho Department of Fish and Game, McCall (Jun 90 to Nov 91)

Job title: Research technician
Employer: School of Forest Resources, University of Georgia (Apr 88 to Sep 89)

Expertise:

By acquiring my education in the southwest and midwest and being employed by both state and federal agencies in three different regions of the country my experience in fisheries is extensive and diverse. My wide range of experience has provided me with expertise in collecting, analyzing and interpreting a variety of data and the ability to communicate the results of management activities and research to professional and civic groups via technical reports or presentations.

Randy R. Kelley, District Conservationist

Education and Training:

BA in Botany, Central Washington State College, 1976.
MS in Forest & Range Management, Washington State University, 1981.
Certified Associate Wildlife Biologist, The Wildlife Society, 1983.

Work Experience:

* District Conservationist, USDA, Natural Resources Conservation Service (formerly SCS), Okanogan, WA, 1994 to Present. Field Office Manager, staff supervisor and field

technician and overall program manager. Work closely with Okanogan Conservation District.

*Range Conservationist, USDA, Soil Conservation Service, Ritzville, WA, 1991 to 1994. Conservation planning with farmers and ranchers for Conservation Reserve Program, cropland tillage, and range resource planning and implementation.

*District Conservationist, USDA, Soil Conservation Service, Shoshone, ID, 1989 to 1990. Irrigated cropland conservation planning and implementation, Highly Erodible Land and Wetland Determinations. Work closely with Wood River Soil & Water Conservation District.

*Range Conservationist, USDA, Soil Conservation Service, Caliente, NV, 1987 to 1989. Soil Survey assistance, plant community/soils correlation. Conservation planning and implementation with ranchers on rangeland resources.

*Supervisory Range Conservationist, USDI, Bureau of Indian Affairs, Blackfeet Agency, Browning, MT, 1986 to 1987. Range and Reality program responsibility.

*Range Conservationist, Yakima Indian Nation, 1985. Soil Survey assistance, plant community/soils correlation.

*Range Conservationist, USDA, Soil Conservation Service, Elko, NV, 1982 to 1984. Range planning, snow survey work, soil survey assistance.

*Research Assistant, Washington State University, Integrated Deer Habitat Study of the Okanogan Highlands, 1978 to 1981.

Accomplishments:

*Developed or assisted in developing over 75 range site descriptions and grazable woodland site descriptions.

*Successfully plan and implement Conservation Reserve Program on thousands of acres of cropland

*Successfully plans and implement conservation plans on thousands of acres of rangeland and pastureland.

*Successful natural resource conservation program planning and implementation at six (6) field offices.

*Masters Thesis, Winter & Summer Deer Bedding Site Characteristics in the Okanogan Highlands of North Central Washington, 1981.

Section 10. Information/technology transfer

Information will be routed between key personnel by personal communication, memo, or email transfer. Updates between agencies or departments will be routed by personal communication or inter-agency meetings.

Congratulations!