



**Other planning document references.**

Boneville Power Administration, 1997. Watershed Management Program: Final Environmental Impact Statement.

Columbia Basin Fish and Wildlife Authority, 1997. Intergrated Watershed Projects: The Process and Criteria for Selecting Watershed Projects for the Columbia Basin Fish & Wildlife Program.

Columbia River Fish & Wildlife Program, 1994. Columbia River Basin Fish & Wildlife Program

CRITFC, 1995. WY-KAN-USH-MI WA-KISH-WIT, Spirit of the Salmon. Volume I & II. Portland, Oregon.

Nez Perce Tribe and Idaho Department of Fish & Game, 1990. Clearwater River Subbasin Salmon and Steelhead Production Plan. Northwest Power Planning Council & CBFWA. Bosie, Idaho.

**Subbasin.**

CLEARWATER SUBBASIN

**Short description.**

RESTORING THE MEADOW CREEK (MCCOMAS MEADOWS) WITHIN THE CLEARWATER SUBBASIN IS THE OVERALL GOAL OF THIS PROJECT. WE WILL ACHIEVE THIS WORKING WITHIN AN OVERALL WATERSHED APPROACH, COMPLETING FOUR OBJECTIVES WITHIN THE MEADOW.

**Section 2. Key words**

Mark	Programmatic Categories	Mark	Activities	Mark	Project Types
X	Anadromous fish	X	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
			Planning/admin.	*	Supplementation
			Enforcement	*	Wildlife habitat en-
			Acquisitions		hancement/restoration

Other keywords.

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### Section 3. Relationships to other Bonneville projects

Project #	Project title/description	Nature of relationship
9607701	McComas Meadows-Nez Perce National Forest	Memorandum of Understanding (MOU)
9607700	Clearwater Focus Watershed	Co-coordinators with the Nez Perce Tribe and the State of Idaho.

### Section 4. Objectives, tasks and schedules

#### *Objectives and tasks*

Obj 1,2,3	Objective	Task a,b,c	Task
1	Plant riparian vegetation	a	Finish planting in areas that were not completed during 1998 field season.
		b	Purchase of riparian plants
		c	Re-plant areas which did not survive the growing season.
2	Monitor and Evaluate regeneration of wetland characteristics.	a	Monitor obliterated irrigation canals.
		b	Check effectiveness of obliteration from the air during times of high flow.
		c	Re-vegetate disturbed soil from irrigation canal obliteration.
3	Operate horticulture center	a	Grow plants for revegetation of wetlands
		b	Daily operation of center.
		c	Purchase needed growing supplies.
4	Monitor and evaluate fence	a	Evaluate over winter survival of fence.
		b	Replace any non-functioning areas of fence.

**Objective schedules and costs**

<b>Objective #</b>	<b>Start Date mm/yyyy</b>	<b>End Date mm/yyyy</b>	<b>Cost %</b>
1	5/1998	7/1998	30.00%
2	5/1998	7/1998	40.00%
3	5/1998	6/1998	15.00%
4	4/1998	11/1998	15.00%
			TOTAL 100.00%

**Schedule constraints.**

EXISTING SCHEDULES FOR THE 1999 BUDGET YEAR MAY CHANGE DUE TO WEATHER CONDITIONS. ALL ON-THE-GROUND PROJECTS OCCUR IN A MOUNTAINOUS AREA 2500 FEET ABOVE SEA LEVEL, WHERE UNPREDICTABLE WEATHER PATTERNS MAY OCCUR

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**Completion date.**

THE FIVE YEAR FUNDING RUNS THROUGH 2003, BUT THEIR WILL BE AN O&M COMPONENT FOR UNKEEP ON THE FENCE AROUND THE MEADOW.

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**Section 5. Budget**

***FY99 budget by line item***

<b>Item</b>	<b>Note</b>	<b>FY99</b>
Personnel		\$52,640
Fringe benefits		\$6,947
Supplies, materials, non-expendable property		\$3,670
Operations & maintenance	all O & M is included within the other categories included in the budget proposal.	
Capital acquisitions or improvements (e.g. land, buildings, major equip.)		
PIT tags	# of tags:	
Travel		\$10,100
Indirect costs		\$22,658
Subcontracts		\$23,100
Other	vehicle expense	\$4,438
<b>TOTAL</b>		<b>\$123,553</b>

### **Outyear costs**

<b>Outyear costs</b>	<b>FY2000</b>	<b>FY01</b>	<b>FY02</b>	<b>FY03</b>
Total budget	\$50,000	\$50,000	\$25,000	\$25,000
O&M as % of total	90.00%	90.00%	95.00%	95.00%

## **Section 6. Abstract**

**Excessive grazing within McComas Meadows while under private ownership has completely destroyed the riparian corridor and caused excessive summer water temperatures, a change in channel morphology, and cobble embeddedness. While under private ownership the stream was altered to accommodate irrigation within the meadow. This activity degraded the wetland characteristics of the meadow which destroyed the cultural plants distributed within the meadow. The goal of this project is to protect fish and wildlife habitat and cultural resources by establishing a riparian corridor, replanting vegetation, enhancing channel morphology, preventing livestock grazing, and monitoring the meadow to determine recovery. The area is unique because of its low elevation meadow habitat which is accessible to salmon and steelhead. Anadromous fish spawning in the meadow has been non-existent due to high summer water temperatures. The monitoring will be done in conjunction with the Nez Perce National Forest, and will include an automatic data recorder to measure water temperature, air temperature and discharge. The monitoring will also include photo points, channel profiles, pool:riffle ratio, redd densities, riparian plant distribution survey, and a vegetation survey of the meadow. The expected outcome of this work will help the meadow regain some of its natural characteristics, increasing available fish & wildlife habitat. All of these benefits will contribute to the protection & enhancement of Nez Perce Tribal Culture.**

## **Section 7. Project description**

### **a. Technical and/or scientific background.**

**McComas Meadows contains approximately 2.5 miles of stream channel containing the majority of chinook spawning habitat in Meadow Creek, S.F. Clearwater River. This habitat has been degraded due to excessive grazing and the addition of irrigation canals which have destroyed the wetland characteristics of the meadow. Both the grazing and the irrigation canals were underway during the time it was under private ownership in the early 1900's. This project based upon an integrated watershed model and will be taking into account riparian vegetation, water temperature, cattle exclusion, fish & wildlife habitat and the cultural importance of the meadow. During this work season we are going to concentrate in the stream and riparian corridor. This is the best course of action due to the fact that the Nez Perce Tribal Fisheries has outplanted 70 adult fall chinook (*Oncorhynchus tshawytscha*) in 1997 and from these adults 11 redds were counted within the meadow. That fact**

**makes it important that we improve the habitat for these fish so when they return they have a better habitat to reproduce in. We are also going to begin maintenance on the vegetation placed on the ground during the 1998 field season. This will include the vegetation of areas that did not survive the winter or browsing pressure from the local wild ungulate population.**

**The exclusion of grazing from the meadow has been ongoing for the past 10 years and the stream has stabilized itself, but because of a lack of riparian cover to reduce temperatures and stabilize stream banks we still have some sedimentation problems. This lack of a riparian canopy the stream bank has severely limited rearing habitat & cover. These are two very important components to the survival of salmon and steelhead (EPA, 1993).**

**The four objectives our project proposes strives towards meeting all of the goals and objectives found in the Fish Restoration Plan of the Tribes (CRITFC, 1995), as stated below with explanations of how our projects fit into each of them:**

### **ANADROMOUS FISH RESTORATION PLAN OF THE FOUR TRIBES GOALS**

- Restore anadromous fishes to the river and streams that support the historical culture and economic practices of the tribes.**
- Emphasize strategies that rely on natural production and healthy river systems to achieve this goal.**
- Protect tribal sovereignty and treaty rights.**
- Reclaim the anadromous fish resources and the environment on which it depends for future generations.**

**Putting fish back into river and stream systems alone are not enough to restore their populations, they need a healthy system to return, spawn, and rear in. Our proposal objectives will mitigate (in place, in kind) the problems stated above by decreasing sediment into rivers and streams (restoring and increasing spawning areas), produce riparian and stream bank vegetation (decreasing stream temperatures, increasing rearing habitat, producing cover for fish and wildlife, stabilizing stream banks), and keeping cattle out of critical riparian and stream areas (allowing the stream and riparian areas to grow and heal).**

**The project proposal also protects the goal of tribal sovereignty and treaty rights. In the Treaty of 1855, the Nez Perce Tribe ceded much of their aboriginal territory to the United States in exchange for a reservation that was to serve as a permanent homeland. In that treaty, the Nez Perce Tribe reserved certain rights including, “the exclusive right of taking fish in all the streams where running through or bordering said reservations is further secured to said Indians (Nez Perce Treaty of 1885, 1855).” According to this, the government has a trust agreement to protect all tribal resources. The proposal will work toward protecting our resources, therefore fulfilling the governments responsibilities. The project will also allow the tribe to manage our own tribal resources, which will in turn protect our sovereignty and treaty rights. This is called for in the *National Indian Forest***

*Resource Management Act (PL 101-630)*, which provides for the management of forested tribal trust lands (USDA, 1997).

**CRITFC OBJECTIVES**

- Within 7 years, halt the declining trends in salmon, sturgeon, and lamprey populations originating upstream of Bonneville Dam.
- Within 25 years, increase the total adult salmon returns of stocking originating above Bonneville Dam to 4 million annually and in a manner that sustains natural production to support tribal commercial as well as ceremonial and subsistence harvests.
- Within 25 years, increase sturgeon and lamprey populations to naturally sustainable levels that also support tribal harvest abundance in perpetuity.

The first objective states halting declining salmon and lamprey trends within 7 years. Revegetation of the riparian and stream bank areas should produce bank stabilization within 2 years and cover between 4 to 5 years of planting. This is within the 7 years objective of the Tribes plan.

b. Proposal objectives.

**OBJECTIVE 1: Stream Banks Stabilization, Produce Fish & Wildlife Cover, and improve water temperatures.**

**PRODUCT:** Revegetate the stream riparian and bank areas to stabilize banks, produce cover for fish & wildlife, and improve stream temperatures, (Connin, 1997). These temperatures will be targeted to reach between 50-57 F (NMFS, 1997), (CRITFC, 1995).

**OBJECTIVE 2: Monitor and evaluate the effectiveness of the irrigation canal obliteration.**

**PRODUCT:** Monitor and evaluate whether the objective has been met by determining if the project is successful. If the objective has not been met then we will re-evaluate the project and find the most effective way to succeed.

**OBJECTIVE 3: Operate and maintain a horticultural center.**

**PRODUCT:** The products of this objective will be plants to be used in revegetation proposals. This will include both riparian and cultural plants. Some of the cultural plants are not available through current means and being able to grow them ourselves will help the success of the watershed program.

**OBJECTIVE 4: Maintain the cattle enclosure fence surrounding the meadow. Repair any part of the fence which has been destroyed by snow loads or by any**

other means throughout the season. Add any fence that seems necessary to improve the effectiveness of the fence for cattle exclusion.

**PRODUCT:** Fix any damage that decreases the fences effectiveness.

**c. Rationale and significance to Regional Programs.**

Cattle grazing has been excluded from the meadow for the past 10 years which has allowed the recovery of the area from grazing, but it has not fixed the problem. Within the meadow there is a young riparian canopy beginning, irrigation canals have eliminated much of the wetland characteristics and there is a need for a facility which can provide cultural plants for the watershed program. This is directly related to the Fish Restoration Plan of the Tribes (CRITFIC, 1995) by reclaiming the environment for fish to thrive in. Riparian restoration helps many species of fish & wildlife while also helping to stabilize aquatic environments (Connin, 1991). Riparian corridors create a vegetative column along streams and rivers which serve as transportation routes for wildlife such as birds, bats, deer, and elk (Stevens et al, 1977). With the revegetation of the streams we will also improve the aquatic characteristics. The addition of a shade component will decrease water temperatures, increase streamflow, increase water depth, reduce sedimentation, stabilize the stream banks, elevate water-tables and increase cover for fish (Connin, 1991). These benefits help to protect the treaty rights guaranteed by the treaty of 1855 with the Nez Perce Tribe of Idaho (Treaty 1855). The first step in the rehabilitation of the meadow was the fencing of the meadow to exclude grazing. Now that this fence is fully functioning we must maintain the effectiveness of it by monitoring any destruction that occurs over future seasons. During the 1998 season we began the re-vegetation process of the riparian cooridor. McComas Meadows has a good population of browse feeding animals (deer, elk, moose, etc.), which we expect to have an affect on the growth of the vegetation. These animals will require us to monitor the re-vegetation closely and we are expecting to have to replace areas damaged by the browsing. Once this corridor has establish itself and if fully functioning then the monitoring can decrease.

All of the work proposed will be done with the cooperation of the Nez Perce National Forest. There is currently a Memorandum of Understanding (MOU) being written by the Forest to be reviewed by the tribe. This will create a partnership between the two organization. We have had Cost Share Agreements with the Nez Perce National Forest on other projects, Newsome Creek, Gloryhole sediments ponds and if it is seen as a benefit one will be developed for the McComas Meadows project.

**d. Project history**

The Nez Perce Tribal Fisheries/Watershed Program has been actively involved in McComas Meadows since 1997, but the activities in the meadow have been on going since 1986. The following is a summery of fisheries/watershed activities to date:

1986 - BPA funded removal of fish barriers at the mouth of Meadow Creek presumably caused by landslides

1991 - McComas Meadows acquired by the Forest Service

1992 - Extensive baseline monitoring began including: substrate, channel, and habitat measurements; ground and aerial photography/videography; monitoring fish and amphibian densities; redd counts; riparian regeneration; water temperatures.

1993 - Repair to fence to exclude cattle from the stream

1994 - Minimal revegetation

1996 - Salmon Corps (funded by BPA) removed excessive and dilapidated fencing

1997 - Both the Nez Perce Tribe applied for and received, BPA funding for rehabilitation of Meadow Creek

1997 - Nez Perce Tribe installs fence to exclude cattle from McComas Meadows

During the 1997 season \$133,000 were spent in the meadow. Under the BPA contract number 96-007-00. This money was appropriated to build 5 miles of fence around the meadow, riparian habitat replacement, and improve fish passage. As a result of weather conditions, increased fence distance and soil types the fencing project took longer than originally thought so much of the money appropriated for riparian replacement had to be used for the increased money needed for fencing. This seemed justified because if the fence was not complete the riparian vegetation and stream work would have not done any good.

During the 1998 season \$119,00 was spent to begin work on Meadow Creek within the fence of McComas Meadows. The work performed during this season was re-vegetation of Meadow Creek, irrigation canal obliteration, and maintainance of the cattle exclusion fence surrounding the meadow.

e. **Methods.**

**METHODOLOGY - OBJECTIVE 1**

This project is going to be carried out with the assistance of multiple groups including; the Nez Perce Tribe and Nez Perce National Forest. The tasks within the stream bank stabilization include riparian revegetation.

**SCOPE:**

- Revegetate any incompleated riparian areas.

**METHOD:**

- Purchase and grow native riparian species to be replanted.

- Plant both shrub and tree species throughout the riparian corridor.

The methods with which the projects will be carried out are as follows. The riparian revegetation will be accomplished using native species if willow, hawthorne, alders, and cottonwoods. The willow, hawthorne, alders species will be placed at 4 foot intervals in a staggered pattern, while the cottonwoods will be placed approximately 15-20 feet from the stream bank and 10 feet apart. This spacing will allow for a diverse stream buffer contributing to the health of the riparian corridor and support a diverse community of fish and wildlife.

Within the revegetation of the project there are expected losses of seedlings & clippings due to browsing by wild animals in the area. These losses will be monitored throughout the field season and decisions will be made about any problems arising from these losses. We will evaluate the effectiveness of the revegetation by measuring the growth of the trees and shrubs during their growing season.

### **METHODOLOGY - OBJECTIVE 2**

This objective will be carried out with the cooperation of the Nez Perce National Forest. The monitoring of the regeneration of the wetland characteristics will be done by viewing the area from the air during periods of high flow to see if the water is following historical pathways.

#### **SCOPE:**

- Monitor canal obliteration effectiveness.
- Monitor water levels.

#### **METHOD:**

- Fly over the creek during high flow.
- Use monitoring equipment to measure flows.

The methods with which this objective will be met by the following. We will rent a helicopter to fly over the meadow during early spring to evaluate the effectiveness of the obliteration. The monitoring equipment listed earlier in this proposal will be used to measure water specific information. The water monitoring will be done with the help of the Nez Perce National Forest.

### **METHODOLOGY - OBJECTIVE 3**

Objective 3 involves the operation and maintenance of a horticultural center. This center will address the need for a place that can provide cultural and other re-vegetative plants on a smaller scale. The center is located on the grounds of the Nez Perce National Forest Supervisors Office in Grangeville, Idaho. We have already worked out a Memorandum Of Understanding (MOU) with the Nez Perce National Forest for the use of this facility.

#### **SCOPE:**

- Grow cultural plants within the center.
- Grow re-vegetative species within the center.

#### **METHOD:**

- Create a functioning horticultural center.

- Collect needed soils from planting areas.
- Collect needed seed from planting areas.

We will be working on the cultural center and gathering needed supplies (soil, seed, etc.). The facility is in good shape but has not been used in a few years. Once the center is in working condition we will begin growing; camas (camassia quamash), Oows gows (ligusticum canbyi), various willow species, hawthorne, alders, etc.

#### METHODOLOGY - OBJECTIVE 4

Objective 4 and the related tasks are stated in Section 4 of this proposal. The operation and maintenance of the existing McComas Creek Protection Fence Lines will be an on-going project every year. During the spring of every year, all fence lines will be observed by walking, ATV, or driving, and evaluated for needed repairs. The necessary materials and equipment will be gathered and a crew assembled and sent into the field to repair any areas of fence line, as determined in the monitoring & evaluation.

The results expected from the proposed project will be protecting and restoring Meadow Creek, so it may return to its original state producing a healthy environment for fish & wildlife, assisting in enlarging their populations, and in turn protecting Nez Perce Tribal Culture. The direct results over time for the watershed will include; decreasing sediment into the stream to increase fish spawning habitat, producing riparian and stream bank cover to decrease water temperatures, increase fish & wildlife cover and a maintained fence line. This effort will in turn result in protection of our Nez Perce Tribal Culture, sovereignty, and 1855 treaty rights.

**f. Facilities and equipment.**

- **EQUIPMENT: Hoe-daddies**  
**AMOUNT: 6**  
**TO BE PURCHASED, RENTED, OR OWNED: Owned**  
**USE: Hoe-daddies will be used for revegetation of plant species, namely trees.**
- **EQUIPMENT: Tree Planting Bags**  
**AMOUNT: 4**  
**TO BE PURCHASED, RENTED, OR OWNED: Purchased**  
**USE: To carry large numbers of seedlings to be planted.**
- **EQUIPMENT: GSA Vehicles**  
**AMOUNT: 2 (1-Ford Expedition, 1-Ford F-250 truck)**  
**TO BE PURCHASED, RENTED, OR OWNED: Leased**  
**USE: The GSA Vehicles will be used to transport employees, equipment, materials, and ATV.**
- **EQUIPMENT: ATV**  
**AMOUNT: 1**

- TO BE PURCHASED, RENTED, OR OWNED: Owned**  
**USE: The ATV will be used to transport equipment and materials to the work site.**
- **EQUIPMENT: Office Computer**  
**AMOUNT: 1**  
**TO BE PURCHASED, RENTED, OR OWNED: Owned**  
**USE: The computer will be used to write reports.**
  - **EQUIPMENT: Helicopter**  
**AMOUNT: 1**  
**TO BE PURCHASED, RENTED, OR OWNED: Rented**  
**USE: To fly the creek during high flow.**
  - **EQUIPMENT: Water monitoring devise**  
**AMOUNT: 1**  
**TO BE PURCHASED, RENTED, OR OWNED: N/A**  
**USE: To monitor water information.**
  - **EQUIPMENT:**  
**AMOUNT:**  
**TO BE PURCHASED, RENTED, OR OWNED: Rented**  
**USE:**
  - **EQUIPMENT: Tree Planting Bar**  
**AMOUNT: 4**  
**TO BE PURCHASED, RENTED, OR OWNED: Purchased**  
**USE: The bars will be used to plant all riparian and wetland vegetation.**
  - **EQUIPMENT: Tree feeding auger**  
**AMOUNT: 2**  
**TO BE PURCHASED, RENTED, OR OWNED: Purchased**  
**USE: These will be used to place trees that need to be placed deeper than one foot.**

**g. References.**

**REFERENCES**

**Clearwater national Forest and the Nez Perce Tribe, 1997. Challenge Cost-Share Agreement between the Clearwater National Forest and the Nez Perce Tribe. Lapwai, Idaho.**

**Connin, Steve. 1991. Characteristics of Successful Riparian Restoration Projects in the Pacific Northwest. U.S. Environmental Protection Agency, Region 10.**

**CRITFIC, 1995. WY-KAN-USH-MI-WA-KISH-WIT, Spirit of the Salmon, The Columbia River Anadromous Fish Restoration Plan of the Nez Perce, Umatilla, Warm Springs, and Yakama Tribes. Volume 1. Portland, Oregon.**

**EPA, 1993. Monitoring Protocols to Evaluate Water Quality Effects of Grazing Management on Western Rangeland Streams.**

**Fuller, R., Kucera, P., and Johnson, Dr. (1995). A biologist and physical inventory of streams within the Nez Perce Reservation. Nez Perce Tribe and Idaho Department of Fish and Game. (1990). Clearwater River Subbasin: salmon and steelhead production plan.**

**Jim Brown Creek Resource Mgt. Cooperative, 1997. Jim Brown Creek Coordinated Resource Management Plan. Clearwater County, Idaho.**

**Nez Perce Treaty of 1855, 1855. Nez Perce Treaty of 1855 with the United States Federal Government.**

**NMFS (National Marine Fisheries Service), 1997. Salmon Recovery Plan for the Snake River.**

**Stevens, L.E., et. Al. 1977. Importance, Preservation and Management of Riparian Habitat: A Symposium. Rocky Mt. For. And Range Exp. Stn. Fort Collins, Colorado.**

**USDA, 1997. Forest Service National Resource Book on American Indian and Alaska Native Relations. FSM1563.**

## **Section 8. Relationships to other projects**

Several agreements (written and verbal) have been made between various agencies and individuals to work together with the *Nez Perce Tribal Watershed Management Program* in performing the four objectives proposed for the McComas Meadows project in 1998. The staff and program manager, Ira Jones, constantly seek agreements and/or corporation between other agencies for work to be completed with the subbasin.

Currently the Nez Perce Tribe, is working to complete a Memorandum of Understanding (MOU) with the Nez Perce National Forest. This agreement will be amended to continue through the year 2003 (5-year plan). This agreement discusses the relationship between the two governments with regard to watershed management with the Meadow Creek Watershed and the Nez Perce National Forest. There is the belief that further exploration will lead to other opportunities in this proposal.

According to the Nez Perce Treaty of 1855 with the Federal Government, the government has a trust agreement to protect all tribal resources. This proposal will work toward protecting our resources, therefore fulfilling the federal government trust responsibilities. The project will also allow the tribe to manage our own tribal resources, which will in turn protect our sovereignty and treaty rights.

This project will directly help fisheries projects already funded by BPA. BPA has allotted \$1,500,000 to the Nez Perce Tribal Hatchery (NPTH). The NPTH will incubate and early rear fish in their facility and then release them into the natural environment to continue their freshwater rearing, one of these sights will be located within the meadow . Meadow Creek was an important chinook production stream historically. In order for their program to achieve success, habitat conditions in the stream need to offer as beneficial conditions as possible. The objectives of this proposal will work to benefit fish and wildlife habitat for the Nez Perce Tribal Hatchery projects.

The Clearwater Focus Watershed Program is co-coordinated by Ira Jones of the *Nez Perce Tribal Fisheries/Watershed Management Program* and Janet Hohle of the *Idaho Soil Conservation Commission*. They will work directly with this project by coordinating multiple jurisdictions, multiple agencies, and multiple private landowners of this projects area, in efforts to protect, restore, and enhance anadromous fisheries habitat within the Meadow Creek Drainage. The two co-coordinators are funded by BPA.

## **Section 9. Key personnel**

**NAME:** Emmit E. Taylor Jr.

**TITLE:** Civil Engineer-In-Training

**FTE:** 1.0

**DUTIES ON PROJECT:** Road obliteration field inspector; Assist in analyzing, designing, and construction of bank stabilization structures. Co-coordinator for all Lolo Creek Drainage Projects.

**QUALIFICATIONS:** Emmit E. Taylor Jr. has a B.S. degree in Civil Engineering from Colorado State University. He has worked in several professional firms including, but not limited to, Colorado State University Transportation Program, Womer & Associates Engineering and Architecture Firm, and the Nez Perce Tribe.

**DEGREE:** Bachelors of Science in Civil Engineering - Colorado State University

**CERTIFICATION STATUS:** Civil Engineer-In-Training

**CURRENT EMPLOYER:** Nez Perce Tribal Fisheries/Watershed Management Program

**CURRENT RESPONSIBILITIES:** Assist in gathering, analyzing, and interpreting watershed data; represent program in various interdisciplinary teams; assist in surveying project areas; aid in assessing water resources/quality; knowledge of current computer software programs; design of civil engineering projects; supervise and field inspection of road obliteration; co-coordinate program projects.

**PREVIOUS EMPLOYMENT:**

**EXPERTISE:** Emmit E. Taylor Jr.'s background is in Civil Engineering with an emphasis in hydrology. Mr. Taylor's analysis, design, and construction work concentrates on stream rehabilitation, stream morphology, water quality, road obliteration, in-stream structures, and fish passage improvements.

**PUBLICATION OR JOB COMPLETIONS:** (1) Eldorado Fall Area Survey, (2) McComas Meadows Meadow Protection Project, (3) Squaw Creek Stream Survey

and Analysis, (4) Colville Confederated Tribes HRD Building Site Development Design, and (5) Geiger Boulevard Environmental Analysis.

**NAME:** Felix M. McGowan

**TITLE:** Habitat Biologist

**FTE/HOURS:** 1.0

**DUTIES OF PROJECT:** Co-coordinator for all projects, riparian revegetation supervisor, fence placement coordinator and liaison between Forest Service and Tribal work crews.

**QUALIFICATIONS:** Felix M. McGowan has a degree in Biology from Gonzaga University. He has worked for the Nez Perce Tribe for one year. Prior to coming to this job he worked in a college setting at North Idaho College.

**DEGREE:** Bachelors of Arts in Biology, Gonzaga University

**CURRENT RESPONSIBILITIES:** Determine budget and staffing needs, prepare project work plans and coordination of projects, work with interdisciplinary teams, help to develop land management plans, coordinate fish, wildlife and cultural habitat requirements, investigate potential projects, and help inventory and evaluate habitat conditions.

**PREVIOUS EMPLOYMENT:**

1988-1994 McGowan Farms

1994-1997 North Idaho College

1997-present Nez Perce Tribe

**EXPERTISE:** Felix has a good base in the natural sciences. His work focuses on protection and restoration of riparian and cultural sites. These two areas require a knowledge of a variety of habitat types and how the different habitats interrelate with one another.

**PUBLICATIONS OR JOBS COMPLETED:** 1)Squaw Creek Road Obliteration, 2) Squaw Creek Stream Survey, 3)McComas Meadows Fencing Project, 4) Musselshell Meadows Fencing Project, 5)Johnson Creek/Cox Ranch Rehabilitation Review.

Ira Jones, Clearwater Subbasin Focus Coordinator (1 FTE)  
Habitat/Watershed Manager, Nez Perce Tribe

Education

INSTITUTION	LOCATION	ATTENDANCE	MAJOR	DEGREES
University of Montana	Missoula, MT	Sept. 73 - June 74	Wildlife	N/A

Certificates N/A

Professional Organizations N/A

Employment History

March 3, 1997 to present, Clearwater Subbasin Focus Program

Coordinator for the Nez Perce Tribe, Lapwai, Idaho. Duties: Analyze programs, laws, policies related to watershed management. Facilitate development of criteria to identify critical fisheries habitat. Develop system to apply criteria to watershed for project development and administration. Prepare plan documents for watershed habitat work coordination. Give educational presentations and workshops for watershed management and proposal development. Provide assistance to project proponents with proposal development, implementation, monitoring, and assessment.

May of 1996 to present, Habitat/Watershed Manager of the Nez Perce Tribe. Responsible for planning and implementation of the Early Action Watershed Projects for the Nez Perce Tribe.

6/25/1986 - 3/1/97, Tribal Government Program Manager, United States Forest Service, Region One.

12/14/80 - 6/25/86, Facilities Manager, United States Forest Service, Region One.

7/74 - 10/79, Fire Cache Work Leader, USDA Forest Service, Region One.

Relevant Job Completion's: 1) Coordinated National, Multi-Regional, and Regional Civil Rights conferences. 2) Facilitated Treaty Rights workshops with host tribes and multi-government agencies. 3) Organized and conducted Tribal Relations Training primarily for management level from the U.S. Forest Service, Tribes, Bureau of Land Management, and the Bureau of Indian Affairs. 4) Introduced, implemented, and managed the Inter-Tribal Youth Practicum for careers in natural resources and leadership within the U.S. Forest Service Regions 1, 5, 9, and 10. 5) Developed an Intergovernmental Personnel Act (IPA) position to work with the Salish Kootnai college to teach environmental science courses and develop a four-year natural science curriculum at the college. This three-year position and the program developed into a four-year accredited degree program in the fall of 1996.

## **Section 10. Information/technology transfer**

**The forest service has a required obligation to provide research, transfer of technology, and technical assistance to Indian tribal governments (USDA, 1997). This obligation by the forest service will be used by the *Nez Perce Tribal Fisheries/Watershed Program* to aide in accomplishing the goals & objectives of our Program, NPPC Fish & Wildlife Program, and Spirit of the Salmon Recovery Plan of the Tribes. A relationship with the Clearwater National Forest has been establish and has had a very positive impact on both organizations and is expected to continue in the future. This relationship has lead to several agreements, both verbal**

**and written, for the completion of numerous projects within the Clearwater Subbasin.**