Bonneville Power Administration
Fish and Wildlife Program FY99 Proposal Form

Section 1. General administrative information

Upper Grande Ronde Habitat Enhancement

Bonneville project number, if an ongoing project **9608300**

Business name of agency, institution or organization requesting funding

Business acronym (if appropriate) **Confederated Tribes of the Umatilla Indian Reservation**

Proposal contact person or principal investigator:

Name	**Allen Childs**
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Subcontractors.

Organization	Mailing Address	City, ST Zip	Contact Name
Grande Ronde Model Watershed (Habitat and Watershed Restoration Projects #9402700, 96608300)	Island City Avenue	LaGrande, OR 97850	Lyle Kuckenbecker
ODFW (#8402500) Grande Ronde Habitat Enhancement/O&M	107 20th Street	LaGrande, OR 97850	Vance McGowan/Tim Walters
NRCS (Dept Agric. Anadromous, Wetland Reserve Program	Pocahontas Road	Baker, OR	Alan Bahn
USFS, LaGrande	3502 Hwy. 30	LaGrande, OR	Jim Webster

Ranger District, Wallowa-Whitman NF		97850	
Earth Conservation Corps/ Salmon Corps at Umatilla	P.O. Box 638	Pendleton, OR 97801	Modesta Minthorn
Various Heavy Equipment Contractors hired through bidding process			

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

7.6B.3; 7.6B.4; 7.6C; 7.6C.5; 7.7; 7.8A.5 (See Section 7)

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

CTUIR projects proposed are located in the Upper Grande Ronde Subbasin which is critical habitat for Threatened Snake River spring chinook salmon and summer steelhead.

Other planning document references.

If the project type is "Watershed" (see Section 2), reference any demonstrable support from affected agencies, tribes, local watershed groups, and public and/or private landowners, and cite available documentation.

The Grande Ronde River Basin is identified in Wy Kan Ush Me Wa Kush Wit which identifies water quality, riparian restoration, range management, forest management, and mining as key issues for the Grande Ronde River Watershed. Spring Chinook salmon adult return goal is 16,000. Estimated adult returns averaged less than 900/year during the period 1986-1990. Adult return goal for summer steelhead is 27,500.

Subbasin.

Upper Grande Ronde River Subbasin

Short description.

This project proposal is a continuation of the FY98 proposal submitted in early January 1998. Additional project detail has been provided in order to provide the review panel with additional project background. Overall, the proposal has not been changed significantly from that submitted earlier. The CTUIR propose to continue with the McCoy Meadows Meadow Restoration Project located on a private ranch in the McCoy and Meadow Creek subwatersheds and the multi-year project effort under developed by CTUIR, ODFW, NRCS, USFS, and private landowners along the mainstem Grande Ronde River.

The following presents an overview of two primary, FY98-99, CTUIR/BPA projects the CTUIR presents for funding consideration

McCoy Meadows Meadow Restoration Project:

The McCoy Meadows Project is an ongoing, multi-year watershed restoration effort initiated in 1995 under a Federal Clean Water Act 319 Grant sponsored by the Oregon Department of Environmental Quality (ODEQ) and U.S. Environmental Protection Agency. The project involves the private landowner, Confederated Tribes of the Umatilla Indian Reservation (CTUIR), EPA, ODEQ, Natural Resource Conservation Service (NRCS), Oregon Department of Fish and Wildlife (ODFW), U.S. Forest Service (USFS), Union County Soil and Water Conservation District (USWCD), Union County Public Works, and Grande Ronde Model Watershed Program (GRMWP).

The multi-year effort, initiated by the CTUIR, NRCS, and landowner is specifically designed to address limiting habitat parameters for salmonid fish species including water quality (primarily temperatures), instream habitat conditions, and floodplain/geomorphological stability and productivity. The approximate 2,800 McCoy Meadows Ranch includes about 5 miles of tributary habitat in the Upper Grande Ronde subbasin (Meadow, McCoy, and McIntyre Creeks). A resource management team comprised of the landowner and agency/tribal staff are working cooperatively to develop restoration designs, implement construction activities, and develop and implement a permanent resource conservation and management plan under the Department of Agriculture Wetland Resource Program. Fiscal Year (FY) 1997 project implementation resulted in the reactivation of historic meander channels with approximately 0.72 miles of new channel length. Additional detail is provided below.

Mainstem Grande Ronde Habitat Restoration Project:

Design and implement instream structural habitat enhancement, streambank stabilization, riparian and wetland plant community restoration (collection of source materials, site preparation, and planting), development of conservation easement/range mangement plan to address restoration/domestic livestock issues. Project development is currently underway and involves two private landowners,

CTUIR, U.S. Forest Service, Wallowa-Whitman National Forest, Natural Resource Conservation Service, Oregon Department of Fish and Wildlife, and Grande Ronde Model Watershed Program.

Landowners are expected to contribute inkind contributions with the five agencies/organizations cost-sharing expense of restoration project. Project (construction portion) is scheduled to be implemented over a two year period beginning in FY98 and concluding in FY99.

Section 2. Key words

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

Other keywords.

Water Quality, Groundwater/floodplain function, ESA Snake River spring chinook salmon and summer steelhead

Section 3. Relationships to other Bonneville projects

Project #	Project title/description	Nature of relationship
8402500	ODFW Grande Ronde Habitat Enhancement-Implementation/O&M	ODFW is a partner on both the McCoy Meadows and Mainstem Grande Ronde Project. ODFW responsibilities on McCoy - riparian pastures (fencing); Grande Ronde - riparian pastures, cost share on instream habitat
8710001 9604600	Umatilla River Basin Habitat Enhancement Walla Walla Basin Habitat Enhancement	The CTUIR Grande Ronde Basin Habitat Enhancement Project shares personnel, vehicles, and equipment with the CTUIR Umatilla River Basin and Walla Walla River Basin

		Anadromous Fish Habitat Enhancement Projects to increase cost efficiency.
9402700, 96608300	Grande Ronde Model Watershed Program (Habitat and Watershed Restoration Projects)	GRMWS is involved in both McCoy and Mainstem Grande Ronde restoration projects as cooperative project sponsors. Project proposals for GRMWP are currently in development.
**		

****See Section 8. Additional partners and cooperators involved in the McCoy Meadows and Mainstem Grande Ronde River Restoration projects include the U.S. Environmental Protection Agency, Oregon Department of Environmental Quality, Natural Resource Conservation Service, Union County Soil and Water Conservation District, Union County Road Department, and U.S. Forest Service. Partnership funding which is helping augment BPA funds includes 319 ODEQ funds under Clean Water Act, salmon and wetland reserve program funds directed by NRCS, and inkind services provided by local municiples and the USFS.**

Section 4. Objectives, tasks and schedules

Objectives and tasks

Overall project objectives include improving water quality and increasing productivity of spring chinook salmon and summer steelhead trout by restoring and enhancing spawning, incubation, and juvenile rearing habitat (summer and winter). Specific measurable project objectives may include miles of restored stream segments, changes or moderation of water quality parameters (particularly temperatures), miles of riparian pasture fence and size of pastures, acreage of riparian shrub and tree plantings, acreage of restored wetlands, number of instream structures installed, etc.

Obj 1,2,3	Objective	Task a,b,c	Task
1.	Improve stream channel geometry and geomorphic stability, reduce sediment transport and erosion, improve surface-groundwater interaction. Develop site-specific restoration designs	a.	Survey/Design: conduct total station surveys of project reaches identified for restoration projects
		b.	Prepare engineering designs
		c.	Prepare, administer/implement, and inspect project construction (see below)

2	Restore and enhance riparian/wetland tree, shrub, grass, and forb communities	a. b.	-collect/propagate/secure appropriate native riparian tree, shrub, and grass stock -install riparian tree, shrub, and grass species
3	Perform Post-Construction Activities and Monitor Habitat Restoration/Enhancement Structures and Riparian Recovery*		-conduct ongoing M&E Program

The following provides a more detailed description of tasks necessary to accomplish project objectives. The information provided is in the same format as our current BPA contract. The FY97 Scope of Work provides a good basis for expanding and building on previous efforts and continuing into FY1998 and 1999.

McCoy Meadows Meadow Restoration Project

Task 1 Pre-Construction Preparation:

A. Continue coordination for project development, including private landowners,
Lead: CTUIR; USFS, NRCS, USWCD, ODOT, ODEQ, ODFW, NMFS
Duration: ongoing

B. Coordinate engineering survey/designs
Lead: NRCS
Duration: Jan-March 1998/99
Product: Engineering Surveys and Designs

C. Prepare subcontracts for construction contract (equipment/operator)
Lead: CTUIR/NRCS
Duration: February, 1998, - May, 1999
Product: Construction contracts

D. Prepare purchase requisitions for materials
Lead: CTUIR/NRCS
Duration: February, 1998, - May, 1999
Product: Materials

E. Coordinate necessary permitting and consultations with appropriate federal, state, and local authorities (NMFS, DSL/Corps).
Lead: ODFW/NRCS
Duration: 4/98-6/99.

Product: 404 permits, Biological Opinion

F.Collect approximately 15,000 indigenous tree and shrub cuttings (cottonwood, predominantly willow, dogwood, hawthorn) to grow-out as bareroot stock at theCTUIR Native Plant Nursery for fall 1998/spring 1999 planting activities (plant 2,800 - 3,400 trees/stream mile to provide shade, insect drop, improve streambank stability and riparian shade, and provide a future large woody debris source).
Lead: CTUIR
Duration: Fall, Winter, Spring 1998/2000
Product: native riparian tree and shrub stock

Task 2 Project Construction

A. Implement instream project in upper portions of meadow including installation of instream structures, construction of streambank stabilization/bioengineering structures/techniques.
Lead: NRCS/CTUIR
Duration: Phase 2 scheduled to begin July 1 - August 1, 1998/99
Product: Instream design construction

B. Begin revegetation efforts based on changes in meadow hydrology. Efforts include site preparation, planting stock, constructing small exclosures (where appropriate),manual watering (volunteer effort).
Lead: CTUIR/ODFW
Duration: Spring, 1998 - Spring, 1999, Spring 2000
Product: Initial riparian restoration

C. Fence Construction. Construct and relocate riparian pasture fences to meet resource and landowner objectives. Cost share as inkind, if possible. ODFW to provide fencing contribution under existing BPA contract (ODFW Grande Ronde Habitat)

Lead: CTUIR/ODFW
Duration: Summer 1998/99
Product: Expanded/new riparian pasture with conservation easement

Task 3 Perform Post-Construction Activities and Monitor Habitat Restoration/Enhancement Structures and Riparian Recovery*

A. Conduct post-construction final review (check completed work).
Lead: NRCS/CTUIR/ODFW
Duration: August 1998,99
Product: FY97 Summary Report in Progress, FY98 Report

B .Continue groundwater and photo point monitoring to document changes in groundwater, channel morphology, and riparian vegetation.

Lead: CTUIR/NRCS
Duration: Groundwater - Ongoing, Monthly basis, 10 Years; Photo Points - Ongoing, Yearly basis
Product: photo point record of restoration measures/response

C. Coordinate with Oregon Department of Environmental Quality (ODEQ) regarding water quality monitoring.
Lead: ODEQ/EPA
Duration: ongoing basin-wide*
Product: Yearly monitoring report

D. Coordinate proposed and other ongoing research conducted by Oregon State University/others in relation to juvenile salmonid life history and establishment of permanent vegetation transects/plots.
Lead: Landowners/CTUIR
Duration: ongoing
Product: published articles in scientific journals

Mainstem Upper Grande Ronde River Enhancement Project:

Task 1 Pre-Construction Preparation:

A. Complete engineering surveys designs
Lead: NRCS/USFS
Duration: ongoing, May 1998/99
Product: Restoration Designs

B. Prepare subcontracts for construction contract (equipment/operator)
Lead: CTUIR/NRCS
Duration: May, 1998/99
Product: Construction contracts

C. Prepare purchase requisitions for materials
Lead: CTUIR/NRCS
Duration: May, 1998/99
Product: Materials

D. Coordinate necessary permitting and consultations with appropriate federal, state, and local authorities (NMFS, DSL/Corps).
Lead: ODFW/NRCS
Duration: May, 1998/99
Product: 404 permits, Biological Opinion

E. Collect and propagate indigenous tree and shrub cuttings (cottonwood, predominantly willow, dogwood, hawthorn) to grow-out as bareroot stock at the CTUIR Native Plant Nursery for fall 1998/spring 1999 planting activities (plant 2,800

- 3,400 trees/stream mile to provide shade, insect drop, improve streambank stability and riparian shade, and provide a future large woody debris source).
Lead: CTUIR
Duration: Fall, Winter, Spring 1998/2000
Product: native riparian tree and shrub stock

Task 2 Project Construction

A. Implement instream project in upper portions of meadow including installation of instream structures, construction of streambank stabilization/bioengineering structures/techniques.
Lead: NRCS/USFFS/CTUIR
Duration: July 1 - August 1, 1998/99
Product: Instream design construction

B. Begin revegetation efforts. Efforts include site preparation, planting stock, constructing small exclosures (where appropriate),manual watering (volunteer effort).
Lead: CTUIR/ODFW
Duration: Spring, 1998 - Spring, 1999, Spring 2000
Product: Initial riparian restoration

C. Fence Construction. Construct and relocate riparian pasture fences to meet resource and landowner objectives. Cost share as inkind, if possible. ODFW to provide fencing contribution under existing BPA contract (ODFW Grande Ronde Habitat)
Lead: ODFW
Duration: Summer 1998/99
Product: Expanded/new riparian pasture with conservation easement

Task 3 Perform Post-Construction Activities and Monitor Habitat Restoration/Enhancement Structures and Riparian Recovery*

A. Conduct post-construction final review (check completed work).
Lead: NRCS/USFS
Duration: August 1998,99
Product: Progress Reports

B .Develop and implement photo-point monitoring
Lead: NRCS
Duration: Groundwater - Ongoing, Monthly basis, 10 Years; Photo Points - Ongoing, Yearly basis
Product: photo point record of restoration measures/response

C. Coordinate with Oregon Department of Environmental Quality (ODEQ) regarding water quality monitoring.

Lead: ODEQ/EPA
Duration: ongoing basin-wide*
Product: Yearly monitoring report

Task 4 Develop Resource Conservation Easement with Landowners

A. Continue negotiations with landowners for easement(s)
Lead: NRCS
Duration: ongoing negotiations
Product: Resource Conservation Easement under Dept Agriculture Wetland Reserve Program

B. Coordinate with landowner on development of range management strategies (development of riparian pastures/grazing systems
Lead: NRCS
Duration: ongoing
Product: Conservation Easement (potentially through Fed. WRP), improve grazing strategies

*Long-term effects of habitat restoration/enhancement activities in project areas (changes in channel morphology, riparian vegetation, stream temperatures, sediment loads and macroinvertebrate populations) are part of the ODEQ water quality monitoring program in the Grande Ronde River Basin which is currently funded.

Objective schedules and costs

Objective #	Start Date mm/yyyy	End Date mm/yyyy	Cost %
1	ongoing 1/98; 9/98	4/98 4/99	54%
2	ongoing	7/2001	15%
3	ongoing	ongoing (min. 10 year monitoring plan)	<3% M&E is largely funded under other programs

Schedule constraints.

Major Milestones: Project designs, permitting/consultation (NMFS, Corps 404), construction/professional service contract preparations, project construction, ongoing M&E.

Constraints: consultations, instream work window (July 1-31 McCoy Meadows; July 1-October 15, Mainstem Grande Ronde.

Completion date.

Completion dates are estimated for construction only

McCoy Meadows: FY2000, O&M 2001-2003

Upper Mainstem Grande Ronde River Enhancement: FY2001, O&M 2002-2003

Section 5. Budget

FY99 budget by line item

Item	Note	FY99
Personnel		$36,995
Fringe benefits		$10,729
Supplies, materials, non-expendable property	includes construction materials (rock, large wood, riparian stock)	$51,700
Operations & maintenance	repairs/maintenance, office opps.	$4,700
Capital acquisitions or improvements (e.g. land, buildings, major equip.)		$0
PIT tags	# of tags:	$0
Travel	vehicle rental, mileage	$4,082
Indirect costs	34%	$36,794
Subcontracts		55,000
Other		
TOTAL	Budget Increased over 1998 levels consistent with original program projections.	$200,000

Outyear costs

Outyear costs	FY2000	FY01	FY02	FY03
Total budget	250,000	250,000	275,000	275,000
O&M as % of total	(25%) 50K	(25%) 50K	(10%) 20K	(10%) 20K

Section 6. Abstract

The CTUIR Grande Ronde Subbasin Watershed Restoration Project (5507000) is an ongoing, multiple cooperator/partner effort with key objectives of restoring and enhancing water quality, instream structural diversity, floodplain/geomorphological functions, riparian/wetland quality and quantity, and rearing and spawning habitat for

anadromous fish including threatened Snake River Spring chinook salmon and summer steelhead trout. Key NPPC FWP Measures addresss include: 7.6B.3; 7.6B.4; 7.6C.5; 7.7; 7.8A.5.

The CTUIR propose to focus FY98 and 99 NPPC funding on the ongoing restoration efforts on the McCoy Meadow Ranch and continue detailed designs and preparations for project construction on the Mainstem Upper Grande Ronde Enhancement project involving the Stone and Kunha Ranches in the middle Upper Grande Ronde subbasin.

Methods involve state-of-art bioengineering techniques that embrace the scientific principles of watershed and floodplain morphological processes. The two project areas considered in this proposal exhibit severe instability primarily as a result of past land use practices such are agriculture, ranching, channelization, and transportation system development.

Project development and implementation is phased in over a period of an estimated 3-4 years on the McCoy Creek Ranch and 2-3 years on the Mainstem Grande Ronde Enhancement Project. Expected outcomes include: increased geomorphic stability and more natural channel forming/maintenance process; increased instream habitat and structural diversity including approximately 3 miles of reestablished stream channel/holding, rearing, and spawning habitat in McCoy, McIntyre, and Meadow Creeks, restoration of 300-500 acres of mid-montane wetland habitat, and enhanced holding and rearing habitat along approximately 10 miles of mainstem Upper Grande Ronde River. Benefits such as increased channel length and enhanced structural additions will be, and have been, realized immediately following construction. Benefits such as reestablishing riparian and wetland habitats will likely require over a decade to become fully realized.

Monitoring and evaluation includes groundwater, fish habitat and populations survey/sampling, and photo point monitoring. An extensive water quality monitoring network is maintained by ODEQ and includes temperature and chemistry as well as macroinvertebrate community monitoring. Additional M&E includes coordination with ongoing and planned research by Oregon State University.

Section 7. Project description

a. Technical and/or scientific background.

McCoy Meadows Meadow Restoration Project:

The McCoy Meadows Meadow Restoration Project a multiple year, multi-funded effort designed to address limiting factors for salmonid fish species including water

quality (primarily temperatures), instream habitat conditions, and floodplain/geomorphological stability and productivity. Project co-sponsors include the private landowner, CTUIR, U.S. Environmental Protection Agency, Oregon Department of Environmental Quality, Natural Resource Conservation Service, Oregon Department of Fish and Wildlife, U.S. Forest Service, Union County Soil and Water Conservation District, Union County Public Works, and Grande Ronde Model Watershed.

The project involves the lower portions of three major tributaries in the Upper Grande Ronde subbasin (Meadow Creek, McCoy Creek, and McIntyre Creek). The mainstem project has multi-agency (NRCS, ODFW, USFS, and CTUIR) support which was identified by the CTUIR in the FY97 NPPC prioritization process. Implementation of Phase I of the project (see FY97 NPPC Criteria for project number 5507000) was completed during FY97. Additional funds are programmed to conduct operations and maintenance on Phase 1 and proceed with development of restoration designs and construction on Phase 2 of the project. Phase 2 involves similar activities to Phase 1 but encompasses approximately twice as much meadow habitat along the lower portions of McCoy Creek and Meadow Creek. The McCoy Meadows Meadow Restoration Analysis (CTUIR et al., 1997) with accompanying restoration designs for the Phase 1, FY97 component of this project is on file at the CTUIR, DNR Wildlife Program Office.

FY98 and 99 project development includes: 1) design and implementation of restoration actions that directly address geomorphologic conditions, functions, and desired future conditions of the McCoy Meadows complex (e.g., channel configuration and natural stability), 2) restoration of the quality and quantity of native riparian and wetland habitat conditions through reestablishment of natural hydrological processes (increased groundwater storage in mid-montane wetland/meadow complex) which is anticipated to moderate water temperatures over time (temperature is currently a limiting factor); 3) incorporation of the McCoy Meadows Ranch under the U.S. Department of Agriculture's Wetland Reserve Program (perpetual resource conservation easement and mechanism to protect investments made by project partners; and 4) implementation and expansion, where practicable, of an ongoing monitoring and evaluation program to assess project effectiveness and to track meadow recovery over time (ongoing monitoring includes ODEQ, CTUIR, NRCS, ODFW, and landowners.

Overall project objectives include improving water quality and increasing productivity of spring chinook salmon and summer steelhead trout by improving spawning, incubation, and juvenile rearing habitat. Specific measurable project objectives may include miles of riparian corridor fencing, miles of riparian planting, acres of wetland/riparian restoration, number of instream structures installed, etc. Specific measurable project results include increased instream structural diversity (adult holding, juvenile overwintering habitat), improved channel morphology (decreased

width:depth, decreased gradient, increased channel length), improved stream shade and riparian/wetland structure/composition, improved streambank stability, decreased water temperature, and decreased sediment transport compared to existing channelized condition.

General project tasks include: preparing surveys and designs, preparing for project construction (contracts and permitting), coordinating with multiple partners including private landowners, conducting riparian vegetation restoration activities (collection, propagation, site-preparation, and planting), and monitoring and evaluation.

Additional tasks associated with this project are intended to augment onging efforts to truly conduct restoration actions on a watershed scale. Although the majority of the efforts identified relate specifically to the McCoy Meadows Ranch, CTUIR and other agency staff are engaged in a wide variety of watershed level landuse issues, Current and ongoing watershed-based efforts include development of partnerships with USFS on the McIntyre Road Obliteration and Relocation Project, government to government consultation between the CTUIR and USFS on timber, range, and transportation systems on National Forest System lands in the headwaters of these tributaries, and coordination with local municipals on transportation system issues (i.e., replacement of existing culvert/road crossing on McIntyre Road within project reach (ongoing CTUIR/USFS/Union County/Landowner effort). Additional detail is provided in the Methods section below.

Mainstem Grande Ronde Habitat Restoration Project:

The conceptual design for this project includes installation of floodplain and instream large wood, construction of rock structures, riparian tree and shrub plantings, and development of range management strategies with the landowner (development of riparian pastures, upland water developments, etc.). The reach under review encompasses nearly 10 miles of mainstem in the vicinity of Bear, Jordan installation of large woodrearing conditions NPPC FY97 encompassing approximately 10 miles of mainstem Grande Ronde. Landownership includes National Forest System and private lands. The project reach extends from Birdtrack Springs downstream to the LaGrande Gun Club. These projects address the following NPPC Fish and Wildlife Program Measures:

Tasks include design and implement instream structural habitat enhancement, streambank stabilization, riparian and wetland plant community restoration (collection of source materials, site preparation, and planting), development of conservation easement/range mangement plan to address restoration/domestic livestock issues. Project development is currently underway and involves two private landowners, CTUIR, U.S. Forest Service, Wallowa-Whitman National Forest, Natural Resource

Conservation Service, Oregon Department of Fish and Wildlife, and Grande Ronde Model Watershed Program.

Landowners are expected to contribute inkind contributions with the five agencies/organizations cost-sharing expense of restoration project. Project (construction portion) is scheduled to be implemented over a two year period beginning in FY98 and concluding in FY99.

b. Proposal objectives.

Project Objectives

McCoy Meadows Meadow Restoration Project:

Restoration objectives identified in the Multi-agency Restoration Analysis (CTUIR et al., 1997) include:

- Increase stream channel sinuosity
- Improve instream, riparian, floodplain/meadow conditions and functions, including improved quality and utilization of riparian and meadow areas for native plant communities and wildlife. Encourage beaver recolonization and high quality habitat for other riparian-dependant native species
- Improve/increase vegetative cover/shade to decrease summer stream temperatures and increase winter temperatures
- Improve/increase streambank stability
- Improve water chemistry
- Improve surface water and groundwater interaction
- Improve productivity of coldwater fish habitat and terrestrial and aquatic macroinvertebrate production
- Improve utilization of new stream channel segments by steelhead
- Provide watershed restoration educational opportunities
- Assess opportunities with landowners to develop long-term conservation easement under U.S. Department of Agriculture Wetland Reserve Program.

Design and implement restoration actions that directly and indirectly lead to improving trends in key limiting factors in the subbasin, including but not limited to: 1) water quality (temperatures, point and non-point sources of pollution; 2) reestablishing large pool habitat for adult holding and juvenile rearing/overwintering; 3) increasing instream structural diversity; and 4) promoting healthy riparian/wetland resources.

Mainstem Grande Ronde Habitat Enhancement Objectives

- Increase/restore geomorphic stability, reduce streambank erosion, stabilize streambanks

- Improve juvenile salmonid winter and summer rearing habitat
- Improve adult holding water (increase quality and quantity of pool habitat)
- Increase/restore native riparian and wetland vegetation
- Increase large wood and instream structural diversity
- Improve livestock grazing operations on private land
- Control unregulated public access from adjacent National Forest System lands (close roads that access Grande Ronde flooddplain to decrease riparian/streambank damage)
- Assess opportunities with landowners to develop long-term conservation easement under U.S. Department of Agriculture Wetland Reserve Program.
- Provide watershed restoration educational opportunities

c. Rationale and significance to Regional Programs.

CTUIR watershed restoration efforts have been and continue to be closely coordinated with a number of resource agencies in the Grande Ronde River Basin. The majority of these entities are committed partners to the two projects considered under this proposal. The McCoy Meadows and Mainstem Grande Ronde River Enhancement Projects are geographical located in the basin to directly and indirectly address limiting factors for anadromous fishery resources. Both projects focus on water quality and instream rearing habitat conditions. The rationale and significance to regional programs for FY98 and 99 CTUIR funding for the Upper Grande Ronde Subbasin is embedded in the FWP criteria as follows:

7.6B.3 - The projects are focused on restoring key, limiting habitat components within the Grande Ronde subbasin where current poor instream habitat and water quality conditions limit productivity of suppressed, ESA listed salmon and steelhead stocks (CTUIR et al., 1996).

7.6B.4 - Restoration activities in the McCoy Meadows area represent what many believe to be an important opportunity in the Upper Grande Ronde subbasin to restore critical juvenile salmonid rearing habitat and improved spawning and holding conditions for adults (summer steelhead, resident) which has been significantly altered by past practices on the property (i.e., farming, ranching, channelization. Meadow Creek is historic Endangered Snake River spring chinook and summer steelhead while McCoy and McIntyre Creeks are summer steelhead and resident tributaries.

7.6C - Ongoing project planning and development has and continues to be coordinated with the Grande Ronde Model Watershed Program and other cooperating agencies/individuals (USEPA, ODEQ, ODFW, NMFS, USFWS, NRCS, USWCD, and private landowners). Project designs are currently in process for both the McCoy Meadows and Mainstem Grande Ronde Enhancement Project. Meadow, McCoy, and McIntyre Creeks are priority subwatersheds for providing quality water and threatened Snake River summer steelhead spawning and rearing habitat. The

Mainstem Grande Ronde River project is located in the middle portions of the Upper Grande Ronde that provides poor quality overwintering habitat. Project identification and design is being accomplished consistent with subbasin plans and overall direction in regards to priorities as identified under the model watershed program (i.e., rearing/overwintering juvenile habitat).

7.6C.5 - Protection of existing habitat and restoration of historic habitat conditions suitable for aquatic and terrestrial organisms is the focus of the Tribes Grande Ronde Subbasin restoration effort. Efforts are currently underway to permanently protect McCoy Meadows through the Federal Wetlands Reserve Program (sponsored by NRCS). Discussions with landowners involved in mainstem Upper Grande Ronde River Enhancement Project are also ongoing in regards to conservation easements.

7.7 - The Tribal restoration effort is focused on addressing habitat priorities and developing site-specific projects in areas that have not previously had the needed focus or funding levels required to restore Grande Ronde River fish habitat. Planning, and most importantly, project development and implementation, is and will be focused on filling gaps in specific reaches of the subbasin, particularly in the middle, upper portions of the basin on both public and private lands. Primary focus areas include mainstem river segments and tributaries primarily in private ownership. Cooperative projects and planning with other agencies/entities is ongoing and being improved upon currently in an attempt to develop and implement a systematic restoration strategy in the subbasin.

7.8A.5 - Improved livestock management on current and conceptual future projects in the subbasin are integral components of restoration project design, implementation, and end result. Cooperative efforts on the McCoy Meadows and mainstem Grande Ronde Enhancement Projects include development of an updated range management plan (in progress by NRCS) consistent with the goals and objectives of the restoration effort. Existing livestock exclosure fencing is planned for relocation to better accommodate riverine and wetland habitat restoration, range improvements are planned to address distribution, and a grazing system is being developed to meet the objectives of the landowner.

d. Project history

The CTUIR Grande Ronde Subbasin Watershed Restoration Project (5507000) is an ongoing, multiple cooperator/partner effort with key objectives of restoring and enhancing water quality, instream structural diversity, floodplain/geomorphological functions, riparian/wetland quality and quantity, and rearing and spawning habitat for anadromous fish including threatened Snake River Spring chinook salmon and summer steelhead trout. Key NPPC FWP Measures addresss include: 7.6B.3; 7.6B.4; 7.6C.5; 7.7; 7.8A.5.

The CTUIR propose to focus FY98 and 99 NPPC funding on the ongoing restoration efforts on the McCoy Meadow Ranch and continue detailed designs and preparations for project construction on the Mainstem Upper Grande Ronde Enhancement project involving the Stone and Kunha Ranches in the middle Upper Grande Ronde subbasin.

The project number for the CTUIR, Upper Grande Ronde Subbasin Restoration effort has not changed from previous Fiscal Years (5507000). However, it needs to be noted that the FY98 line item has been erroneously excluded from the FY98 funding matrix included as part of the NPPC Fish and Wildlife Program Summary of Obligations. Anadromous efforts in the Upper Grande Ronde Subbasin on ongoing and expected to continue into FY2003 and beyond.

The McCoy Meadows Ranch Watershed Restoration Project was initiated in 1995 under Section 319 of the Clean Water Act to address non-point sources of pollution in the Upper Grande Ronde River subbasin. A working group was subsequently established to inventory resources and existing environmental conditions and develop watershed restoration activities that promote improved water quality, instream fish habitat, wildlife habitat, and utility of the McCoy Meadows Ranch. The group consists of Mark and Lorna Tipperman, owners of the ranch, and state, federal, and tribal governments and agencies including the CTUIR, EPA, ODEQ, NRCS, ODFW, USFS, and USWCD.

Resource restoration activities began in the McCoy Meadows area in 1988 with construction of several miles of livestock exclosure fence along Meadow Creek and McCoy Creek and associated monitoring by ODFW under contract with BPA to protect streambanks and riparian vegetation. In 1995, a cooperative watershed restoration project with the landowners began to take form with goals of restoring water quality, fish and wildlife habitat, and wetland function. A restoration analysis completed in early 1997 by the landowner and multi-agency team identified and evaluated project objectives and restoration actions. The primary focus of the effort is to implement measures that return the meadow complex to more natural, historic condition with specific emphasis placed on reintroducing McCoy Creek into its pre-1977 meander channels which were intentionally abandoned through extensive channelization. Phase 1 implementation was completed between July 1 - July 15, 1997. Additional project work is scheduled for 1998 and 1999.

Phase 1 included reintroducing the upper portion of McCoy Creek into historic channels, installation of instream, grade control structures to store bedload in channelized stream segments, grading portions of historic railroad grade to improve floodplain function and reduce floodplain stranding, planting riparian shrub livestakes (approximately 1,000 stakes and 22 whole willow rootwads), seeding disturbed areas, relocation of about 2 miles of existing riparian exclosure fence to better accommodate meadow restoration efforts (fence was relocated in several areas to edge of meadow toeslope), continue existing monitoring activities (groundwater, water quality, fish

populations, and photo-points), collection and propagation of 14,000 riparian shrub tublings in preparation for spring 1998 planting, and implementation of initial environmental education activities (e.g., field visits by LaGrande Elementary School 4th grader class, Boise school elementary class, and Church Youth Group).

Subsequent phases of the project include assessing effectiveness of Phase 1 project implementation, incorporating adaptive management, and development and implementation of restoration action plans in the lower portions McCoy Creek and Meadow Creek. Activities include installation of additional grade control structures and reintroduction of additional stream segments to historic meander channels (where feasible)/reconstructing meander channels where needed to restore natural/more stable morphological processes and patterns.

Planning efforts are also ongoing associated with replacement of the existing crossing on McCoy Creek in conjunction with the U.S. Forest Service McIntyre Creek Road Obliteration and Relocation Project. The existing triple culvert on McCoy Creek is undersized (current size cannot accommodate 2-year return interval) and is less than optimal for fish passage. The Forest Service has conducted surveys of the crossing and is currently in the process of completing an engineering design for the replacement structure. Installation of a new bridge is anticipated in FY99 contingent on funding availability. Union County, CTUIR, and USFS are primary cooperators in this endeavor.

In addition, ultimately, eligible portions of the McCoy Meadow Ranch will be incorporated into a perpetual resource conservation easement under the U.S. Department of Agriculture Wetland Resource Program. The landowner, NRCS, and CTUIR are currently defining easement boundaries and preparing necessary documentation for the management plan. The project has been submitted by NRCS for formal consideration. Initial project ranking procedures indicates the project is high priority and should compete well in the state for funding. Restoration funds are secured for FY98 and 99. Funds for establishment of the conservation easement are dependent on availability of funds and how the project measures up against other projects in the State of Oregon.

The Mainstem Grande Ronde Habitat Enhancement Project was originally identified in the 1997 CTUIR/NPPC project proposal. Additional project development has been accomplished by private landowners, CTUIR, NRCS, ODFW, USFS, and GRMWP. This effort is a new project in the basin.

e. Methods.

Former and current detrimental land use practices have historically impacted watershed conditions and continue to affect anadromous and resident fisheries production in the Grande Ronde River Basin. Instream habitat and riparian/wetland

cover types in the upper portions of the basin have been affected by a wide variety of activities, including: logging; mining; road and railroad construction; dredging and channelization; livestock grazing; and splash dam logging. In 1990, McIntosh (1992) conducted an analysis comparing existing large pool habitat conditions in the middle and upper mainstem Grande Ronde River and several tributaries with conditions documented in 1941 by the Bureau of Fisheries (precursor to the National Marine Fisheries Service). McIntosh documented a 43-89% (65% mean) loss in total pools and a 20-89% (68% mean) reduction in large pool habitat in a period of just under 50 years, demonstrating a substantial loss in instream structural diversity, particularly summer/winter rearing habitat for juvenile salmonids and holding water for adults.

In addition, the Grande Ronde River has been determined water quality limited by ODEQ. The Grande Ronde Basin is currently undergoing a Total Daily Maximum Load (TMDL) process to address water quality limitations. High summer stream, low winter temperatures, nonpoint and point sources of sediment, and low or intermittent base flows limit aquatic resource productivity in the McCoy Meadows area.

Habitat restoration, focusing on improving water quality and instream habitat conditions, identified in this proposal include a combination of activities. Development of restoration agreements with private landowners, development and implementation of instream and riparian/wetland restoration/enhancement projects, and improving/building education as it relates to watershed restoration are key elements of the CTUIR's Grande Ronde River Basin Watershed Restoration Program under the Northwest Power Planning Council (NPPC) Fish and Wildlife Program.

<u>McCoy Meadows Existing Conditions</u>

The following sections provide an overview of existing, site-specific conditions on the McCoy Meadows Ranch. For a more complete overview, see the 1997 Restoration analysis (CTUIR, et. al., 1997) on file at the CTUIR, DNR Wildlife Program office.
Fish Habitat

Impaired water quality and significantly reduced availability of instream habitat (reduced channel length resulting from channelization) are severely limiting anadromous fish production in McCoy Creek. A 1992 ODFW Stream Report describes the project area reach, "[t]here is a high proportion of units with actively eroding stream banks. Stream shading is very low." The report further indicates little to no large wood interacting with the channel, that 73.4 percent of the banks are actively eroding and the average open sky is 90 percent. Stream surveys conducted by CTUIR fisheries staff in the fall of 1995 documented similar conditions with about 40 percent glide habitat, 35 percent riffle habitat, and 25 percent pool habitat. Ground cover in the riparian area was estimated at about 2 percent shrubs and included 13 percent bare soil. Canopy closure ranged from 1-3 percent and open sky averaged 91 percent. Large wood averaged 0.8 pieces per 100 meters (about 12 pieces per mile).

Fish Populations

Meadow, McCoy and McIntyre Creeks provide spawning and rearing habitat for threatened Snake River summer steelhead and rearing habitat for juvenile spring chinook salmon. Historically, Meadow Creek was utilized by spring chinook for spawning. Current habitat conditions are severely marginal due to existing summer base flows (estimated at 2 cubic feet per second (cfs)) and water temperatures that exceed State water quality standards (see water quality section below).

Water Quality

Water quality and biological resource monitoring in the project area was initiated by ODFW in 1988 and by ODEQ in 1993. Examination of ODFW data collected between 1988 and 1994 reveals that mean weekly maximum temperatures exceeded the new Oregon Stream Temperature standard (64^{o} F/17.8^{o} C: salmonid rearing) from the start of monitoring each year (about May 15) through the end of October. Hourly temperature data from thermographs illustrates that summer mean weekly maximum temperatures were consistently higher in the lower portions of the meadow compared to the upper meadow where McCoy Creek enters the meadow floodplain. Existing data demonstrates that, though summer stream temperatures consistently exceed state water quality standards as a result of upstream activities and conditions, additional thermal loading occurs within the project area.

In addition, data collected by ODEQ in 1993 illustrate that the highest seven-day average of daily maximum temperatures were 25.8, 24.9, and 26.1 degrees Celsius for Middle McCoy, Lower McCoy, and Lower McCoy, respectively. It is notable that there is little difference in water temperatures between the three sites, which suggests that water temperatures in this reach are in equilibrium with air temperature during this time of year.

Water quality monitoring is ongoing. Of particular interest is the data collected during the summer of 1997 before and after phase 1 project implementation in the upper meadow. Although the full effect of project activities is yet to be seen in regard to water temperature, other water quality parameters, and summer base flows, indications are that reintroducing McCoy Creek into an historic meander channel segment resulted in increased perennial flow in the newly combined McCoy/McIntyre Creek segment (approximately 0.5 miles). Data compilation and analysis of post phase 1 data is ongoing. The workgroup anticipates completion of a year-end restoration summary report this spring. Requests for information can be made directly to Allen Childs, CTUIR Project Leader.

Wildlife Habitat

Existing wildlife habitat conditions in the McCoy Meadows area are thought to be much different than historic conditions. Historic accounts of the McCoy Creek drainage as described in the Stuart Journals suggest that McCoy Creek contained such a high level of sinuosity that early explorers commonly became confused as to which streams they were following. Records maintained by early explorers and trappers also record the abundance of beaver and salmon commonly observed in the Grande Ronde River basin. Today, many streams in the basin contain primarily riffles and shallow glides, poor riparian habitat conditions with minimal overstory riparian tree and understory riparian shrub, very little structural diversity, and a notable near absence of salmon and beaver. As few as 50 salmon return to the Upper Grande Ronde basin and beaver colonies are generally found in small, isolated portions of the basin (although thought to be increasing as observed over the past 15 years).

Because of historic land uses, once abundant wetland resources in the McCoy Meadows areas has been significantly reduced. Channelization and agriculture in the area resulted in alteration of groundwater and surface water regimes, loss of riparian/wetland vegetation, and decreased suitability for beaver. The meadow area, portions of which historically contained a large, montane wetland complex, is currently grassland pasture with limited riparian/wetland complexity. Restoration actions implemented and proposed in this area has the potential to restore over 300 acres of wetland habitat featuring a network of beaver ponds, backwater/side channels, riparian tree and shrub and wetland obligate sedges and rushes. Potential exists for at least doubling waterfowl production and increasing habitat suitability for wintering threatened northern bald eagles and a wide variety of neotropical migratory birds and resident terrestrial and aquatic wildlife.

PROPOSED SOLUTION

Restoration efforts undertaken as part of this contract will be designed to complement ongoing and planned efforts of multiple agencies and address both short and long-term issues associated with poor instream and riparian/wetland habitat conditions. Overall project objectives include improving water quality and increasing productivity of spring chinook salmon and summer steelhead trout by improving spawning, incubation, and juvenile rearing habitat. Specific measurable project objectives may include miles of riparian corridor fencing, miles of riparian planting, acres of wetland/riparian restoration, number of instream structures installed, etc. Specific measurable project results would include increased instream structural diversity (adult holding, juvenile overwintering habitat), stream shade, improved riparian structure/composition, improved streambank stability, and decreased water temperature and erosion.

The project proposal is to reestablish natural sinuosity within McCoy Meadows and restore hydrologic function of the floodplain and wet meadow complex. Project designs are specifically guided by geomorphic scientific principles with the ultimate goal of reestablishing a more natural and functioning mid-montane wetland complex.

Increased stream channel sinuosity and beaver recolonization is projected to improve instream habitat conditions and summer/winter stream temperatures by slowing water velocities and increasing water storage in the meadow complex. Beaver dams and side channels are expected to lead to increased bank storage, pool habitat quantity and quality, and riparian/wetland vegetation. Protecting wet meadow areas from livestock use is planned and expected to increase the rate of recovery of wetland habitats and their watershed function.

Phase 1 included reintroducing the upper portion of McCoy Creek into historic channels, installation of instream, grade control structures to store bedload in channelized stream segments, grading portions of historic railroad grade to improve floodplain function and reduce floodplain stranding, planting riparian shrub livestakes (approximately 1,000 stakes and 22 whole willow rootwads), seeding disturbed areas, relocation of about 2 miles of existing riparian exclosure fence to better accommodate meadow restoration efforts (fence was relocated in several areas to edge of meadow toeslope), continue existing monitoring activities (groundwater, water quality, fish populations, and photo-points), collection and propagation of 14,000 riparian shrub tublings in preparation for spring 1998 planting, and implementation of initial environmental education activities (e.g., field visits by LaGrande Elementary School 4th grader class, Boise school elementary class, and Church Youth Group).

Site-specific restoration actions planned for FY97 and 98 include a wide variety of activities as described above. Many of the measures identified by the workgroup are conceptual at this point in time due to the need to conduct total station surveys, prepare conceptual drawings, and finalize engineering designs.For purposes of this GRMWP proposal, we have identified two distinct activities for the program to consider--recognizing that the FY1997 program of work has multiple cooperators and funding sources including: 1) ODEQ Section 319 Grant; 2) NRCS Wetland Reserve Program Restoration Funds; 3) CTUIR/BPA Watershed Funds; and 4) ODFW/BPA Grande Ronde Enhancement O&M (for riparian fence relocation in lower meadow along McCoy Creek).

See table below for more detailed funding arrangements. Funding sources 1, 2, and 3 will be focused on:

- **maintenance of phase 1 (we anticipate some repair maintenance following spring 1997 flood events)**
- **planting 15,000 riparian shrub tublings and an estimated, additional 10,000 live stakes in upper meadow**
- **conducting total station surveys on approximately two miles of Meadow Creek and 1 mile of McCoy Creek**
- **development of detailed contour map on lower meadow along McCoy Creek in preparation for hydrologic modeling and channel design**
- **preparation of site-specific designs for both Meadow Creek and McCoy Creek**

- **preparation and implementation of construction contract(s) that will include maintenance needs on upper meadow, miscellaneous equipment needs (filling drainage ditches, installing culverts, etc.,) and construction of designs on Meadow and McCoy Creeks.***
- **consultation with NMFS and preparation of DSL/Corp Permit**
- **continue monitoring program/data collection and interpretation**

***Specific restoration measures include a combination of elements including: 1) installing instream structures (rootwad revetments and rock barbs/veins along Meadow Creek; 2) placement of large organic debris to create pool habitat and provide shade; 3) increase riparian shade through artificial and natural regeneration of riparian tree and shrub, 4) removing/relocating existing riparian exclosure fencing to better accommodate watershed restoration efforts, 5) design and install a new or improved crossing on McCoy Creek to improve water transport through the existing McIntyre Creek road crossing and reduce ice formation and flood damage caused by the existing structure (scheduled for construction in 1999 pending funding and successful costs-share; and 6) incorporating eligible portions of the McCoy Meadows Ranch into a perpetual resource conservation easement under the Department of Agriculture Wetland Reserve Program.**

Planning efforts are also ongoing associated with replacement of the existing crossing on McCoy Creek in conjunction with the U.S. Forest Service McIntyre Creek Road Obliteration and Relocation Project. The existing triple culvert on McCoy Creek is undersized (current size cannot accommodate 2-year return interval) and is less than optimal for fish passage. The Forest Service has conducted surveys of the crossing and is currently in the process of completing an engineering design for the replacement structure. Installation of a new bridge is anticipated in FY99 contingent on funding availability. Union County, CTUIR, and USFS are primary cooperators in this endeavor.

In addition, ultimately, eligible portions of the McCoy Meadow Ranch will be incorporated into a perpetual resource conservation easement under the U.S. Department of Agriculture Wetland Resource Program. The landowner, NRCS, and CTUIR are currently defining easement boundaries and preparing necessary documentation for the management plan. The project has been submitted by NRCS for formal consideration. Initial project ranking procedures indicates the project is high priority and should compete well in the state for funding. Restoration funds are secured for FY98 and 99. Funds for establishment of the conservation easement are dependent on availability of funds and how the project measures up against other projects in the State of Oregon.

Bioengineering treatments (where appropriate) will be implemented to minimize erosion, increase/maintain streambank stability, and provide suitable sites for riparian vegetation propagation. Salvage of existing shrubs, where possible, will be

incorporated into project construction phase. Native, riparian tree, shrub, sedges, and forbs (cottonwood, alder, willow, dogwood, hawthorn, etc) will be planted along restored meander channels. An effort will be made to acquire and propagate local indigenous plant species, due to their adaptability to the region and also to address concerns regarding gene pool contamination of existing plant communities. Disturbed areas will also be seeded with native grass mixtures, where available.

Mainstem Grande Ronde Ehancement Project

This proposed project encompasses National Forest System lands (Wallowa-Whitman), Dean Stone property, and the Kuhna Ranch. The area has been subjected to a wide variety of historic and ongoing land uses that have altered instream and floodplain conditions including road and railroad development, livestock grazing, and channelization/alteration. Existing conditions include: geomorphic instability/streambank erosion; poor instream structural diversity (lack of large pool habitat); and poor riparian and wetland vegetation along the channel and floodplain.

Project partners propose to design and implement an enhancement project in this reach to address these existing conditions and to improve rearing habitat for juvenile spring chinook and summer steelhead. Project biologists (CTUIR, ODFW, and USFS) believe the approximately 10 mile reach could provide substantially improved overwintering and summer rearing habitat as well as adult holding water.

Proposed Solution

Project designs include a combination of strategies with a focus on addressing the limiting habitat factors above. Designs include installation of rock and log structures with emphasis placed on increasing sinuousity of the single threaded channel, placement of rootwad revetments in actively eroding streambanks (particularly along outside bends), and propagation and planting riparian tree and shrubs to increase streambank stability and shading.

Bioengineering treatments described under the McCoy Meadows section above are also applicable to the mainstem Grande Ronde Project.

f. Facilities and equipment.

Equipment and facilities necessary to implement the scope of work described above generally exists currently. The vast majority of equipment needed to implement instream restoration activities will be contracted under professional service agreements on equipment rental contracts.

g. References.

CRITFC - 1995. Wy-Kan-Ush-Mi-Wa-Kish-Wit Spirit of the Salmon. Columbia River Anadromous Fish Plan of the Nez Perce, Umatilla, Warm Springs and Yakama Tribes.

CTUIR. 1994. Non-point Sources of Water Pollution Assessment and Management Plan. EPA Region 10 Publication, Seattle, WA. page 37p

NPPC (Northwest Power Planning Council). 1990. Columbia Basin System Planning - Salmon and Steelhead Production Plan for the Umatilla Basin. NPPC Portland, OR 158p.

CTUIR, Tipperman, USEPA, ODEQ, NRCS, ODFW, UCSWCD. 1997. McCoy Meadows Restoration Analysis. Watershed Restoration and Phase I Project Design. CTUIR, Pendleton, Oregon..

McIntosh, Bruce., 1992. Historic Changes in Pool Habitat in the Upper Grande Ronde River Basin…..

Section 8. Relationships to other projects

As noted earlier, the CTUIR's Grande Ronde Subbasin Watershed Restoration efforts under the NPPC Fish and Wildlife Program have been intentionally focused on developing multi-cooperator/partnership projects. Private landowners, federal and state agencies, GRMWP staff, and the CTUIR have consulted on the McCoy Meadows and Mainstem Grande Ronde projects to coordinate matching funds and inkind contributions as well as on technical approaches of individual restoration components planned under individual projects in order to develop effective and cost-efficient restoration activities that address key limiting factors in the Upper Grande Ronde Subbasin.

The McCoy Meadows Meadow Restoration effort involves the components detailed above, but also includes several related aspects. The NRCS and CTUIR, in cooperation with the landowers, have formally submitted McCoy Meadows as a candidate for the Federal Wetland Reserve Program to secure matching restoration funds as well as to purchase a perpetual resource conservation easement. The easement is planned to encompass approximately 1,500 acres of riparian, wetland, and associated upland habitats and provide a financial resource to the landowner that will allow significant protections for fish and wildlife resources. The WRP component to the project is currently under consideration at the Oregon Regional Offices and is competing in the State with other project proposals. We anticipate the project will rank high with a projected completion date of 1998.

Opportunities for cooperation through cost sharing has also been emphasized in the Grande Ronde River Basin. Entities providing funding for stream/watershed habitat enhancement include BPA, CTUIR, UPRR, EPA, and USFWS.

Close cooperation is maintained between the various entities (CTUIR, NRCS, ODFW, ODEQ, EPA, and landowners) implementing habitat protection and enhancement actions to facilitate sharing of equipment, techniques, successes and failures. Project implementors also collaborate with DSL, U.S. Army COE, and National Marine Fisheries Service in order to accomplish work.

Section 9. Key personnel

All CTUIR Department of Natural Resource staff funded under this project are professionally trained and meet standard job descriptions (professional and technical grade and series requirements) es tablished under the CTUIR Policy and Procedures Manual (under current revision, 1998). Technical staff involved in implementing the work identified under this proposal includes biological and administrative staff.

Name: Carl Scheeler
Title: Wildlife Program Manager
Months funded this project: 1
Education: MS Wildlife 1981 Oregon State University
Experience: 15 years fisheries/wildlife experience; last 10 years CTUIR Program Manager; expertise in multi-project development, coordination, and oversight.

Name: Allen Childs
Title: Wildlife Biologist
Months funded this project: 4
Education: BS Wildlife Management 1989 Eastern Oregon University; A.S. Science/Fish and Wildlife Management 1985, College of Eastern Utah
Experience: 12 years fisheries and wildlife experience

Name: Ken Hall
Title: Fisheries Technician
Months funded this project: 4
Education: High School Diploma
Experience: 10.5 years of habitat protection and restoration work; experience in coordinating and implementing on-ground projects pertaining to riparian protection.

Section 10. Information/technology transfer

Project reports of accomplishments are produced quarterly and annually. Project personnel sponsor field tours at any time requested to show accomplishments,

challenges, and techniques. Project personnel also frequently participate in local public forums (workshops, classrooms, clubs, etc.).

All entities involved in stream habitat alterations (proponents and permitting agencies) conduct pre and post implementation tours annually to discuss project needs/recommendations and project successes/failures.

Under the McCoy Meadows Meadow Restoration Project, the CTUIR, landowners, and project partners have committed to preparing year-end reports to document post-project (as-built) conditions, summarize monitoring data, and identify additional or ongoing activities undertaken on the project. The restoration analysis developed during 96/97 is intended to be a "living document' whereby we can append additional restoration design elements to the plan as an adaptive management tool.

Monitoring and evaluation is a key component to the restoration effort. The area is a subject of ongoing and planned research including a basin-wide ODEQ water quality monitoring program, juvenile salmonid life history reasearch and riparian plant community succession (PNW), and specific monitoring components designed by project cooperators and the landowners (groundwater, fish populations, permanent photo-points. Information and technology transfer is planned to be accomplished through yearly reports, documentation of research in scientific journals, and presentations at appropriate symposiums.