

**Bonneville Power Administration
Fish and Wildlife Program FY99 Proposal**

Section 1. General administrative information

South Tower Fire Recovery Projects

Bonneville project number, if an ongoing project 9091

Business name of agency, institution or organization requesting funding
USDA Forest Service, Umatilla National Forest

Business acronym (if appropriate)

Proposal contact person or principal investigator:

Name Ed Pugh
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Subcontractors.

Organization	Mailing Address	City, ST Zip	Contact Name

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

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

Other planning document references.

Tower Fire Ecosystem Analysis

Subbasin.

North Fork John Day

Short description.

Improve/restore/protect fish, wildlife, and riparian habitat, restore hydrologic functions.

Section 2. Key words

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

Other keywords.

Fire restoration, fire recovery, road obliteration, riparian protection

Section 3. Relationships to other Bonneville projects

Project #	Project title/description	Nature of relationship
9605300	Dredge project	

Section 4. Objectives, tasks and schedules

Objectives and tasks

Obj 1,2,3	Objective	Task a,b,c	Task
1	Improve access and rearing habitat, halt habitat degradation, speed recovery of fish habitat	a	Repair/modify culverts
		b	Fencing to exclude cattle, and plant enclosed riparian zone.
		c	Removal/repair of stock ponds
		d	Addition of in-stream wood
		e	Repair/removal of old fish

			structures
2	Restore hydrologic functions, reduce erosion	a	Obliterate 22.1 miles of closed road. Repair 4.5 miles of closed road.
3	Reduce erosion and potential for catastrophic road failures.	a	Repair 40.5 miles of open roads.
4	Enhance, or restore, or halt degradation of wildlife habitat areas.	a	Fence and/or repair 2 ponds
		b	Fence and restore 2 springs
		c	Fence 3 meadows
		d	Remove 1/3 to 3/4 of the crowns from large, dead standing trees on about 1,910 acres.
		e	Seed grasses and shrubs on 1,100 acres.
		f	Supplemental forage seeding on 250 acres.
		g	Fertilize 750 acres.

Objective schedules and costs

Objective #	Start Date mm/yyyy	End Date mm/yyyy	Cost %
1	6/1999	9/2001	19.50%
2	6/1999	9/2001	0.30%
3	6/1999	9/2001	32.40%
4	6/1999	9/2001	47.80%
			TOTAL 100.00%

Schedule constraints.

Coordination of restoration and harvest activities may cause schedule changes.

Completion date.

2001

Section 5. Budget

FY99 budget by line item

Item	Note	FY99
Personnel		
Fringe benefits		
Supplies, materials, non-expendable property		
Operations & maintenance		
Capital acquisitions or improvements (e.g. land, buildings, major equip.)		
PIT tags	# of tags:	
Travel		
Indirect costs		
Subcontracts		\$145,000
Other		
TOTAL		\$145,000

Outyear costs

Outyear costs	FY2000	FY01	FY02	FY03
Total budget	\$145,000	\$145,000		
O&M as % of total				

Section 6. Abstract

In August of 1996, the Tower Fire burned about 51,000 acres of mostly forested land adjacent to the North Fork John Day River, on the Umatilla National Forest. The area encompassed by the boundary of the South Tower Fire Recovery Projects contains about 17,000 acres of the Tower Fire, on slopes immediately adjacent to and paralleling 8.5 miles of the North Fork John Day River. This river is home to the one remaining, totally wild run of summer steelhead and spring Chinook salmon within the Columbia Basin. The project area provides a myriad of fish, wildlife, recreational, and commodity values. In January, 1997, the Tower Fire Ecosystem Analysis made recommendations for protection and recovery of soils, hydrologic functions, vegetation, fish, aquatic, and wildlife habitat. The project package identified in this proposal follow the recommendations of the ecosystem analysis. This package represent an integrated, ecosystem-based approach to recovery of fire effects, and correction of deleterious effects of past management actions. Overall project goals are to hasten recovery from the effects of a very intense fire, and to reduce the potential for additional catastrophic events such as failures of road fills at stream crossings. Results are expected to occur immediately upon

completion of project implementation. Additional beneficial effects will occur over time as projects such as road obliteration “stabilize”. Monitoring has occurred since the fire, and will continue after restoration projects are implemented. The Umatilla National Forest expects to contribute about \$244,000 towards these projects starting in FY98.

Section 7. Project description

a. Technical and/or scientific background.

At 51,000 acres, the 1996 Tower Fire was the largest fire in the recorded history of the Umatilla National Forest (UNF). In January, 1997, the Tower Fire Ecosystem Analysis was completed. Following are some of the findings of the analysis:

- pre-fire fuel levels were observed to have been high as a result of fire suppression, drought, and insects and disease. The resulting fire was probably more severe than would have occurred under more “natural” conditions.
- as a result of the loss of vegetation and ground cover, in addition to steep slopes and high road densities, several subwatersheds are believed to be at high risk in terms of increased water yields, peak flows, channel response, and water quality effects.
- approximately 33 species of amphibians, birds, and mammals are thought to have been extirpated from the fire area due to loss of habitat. An additional 13 species have the potential for local extirpation if key habitats are not restored within the next 15-20 years.
- the fire produced a “high risk” situation for native fish in all streams within its boundary, and for some downstream reaches. The fire killed fish in several stream reaches, in addition to diminishing the quality of fish habitat due to the loss of shade, increased water temperatures, loss of hiding cover, and likely increases in sediment.

In addition to characterizing the effects of this destructive fire, the Tower Fire Ecosystem analysis identified opportunities for restoration of fire effects, and identified needs for reversing adverse effects of past management activities. Following the ecosystem analysis, the North Fork John Day Ranger District developed a Post-Fire Recovery Strategy, establishing a time frame for specific restoration activities.

The South Tower Fire Recovery Projects Environmental Assessment follows up on the recommendations made in the ecosystem analysis and the post-fire recovery strategy.

Funding for the Forest Service to do restoration projects as identified in this proposal is very limited. Currently the Umatilla National Forest (UNF) plans to contribute the following amounts over the next 4 years toward accomplishment of these projects:

Wildlife Projects-	\$60,000
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Closed Road Obliteration -	\$100,000
Fish Projects -	\$60,000
Open Road Repairs -	<u>\$24,000</u>
	\$244,000

Supplemental funding from a source such as the Bonneville Power Administration is critical to being able to do the complete job of restoration.

The UNF began working on restoration before the fire was out. Approximately 9 miles of road have been obliterated. Last year 1,100 acres were reforested at cost of about \$440,000.

Other restoration projects not shown in this proposal, which will not require additional funding, are currently being planned and/or implemented. For example, this spring, 2,700 acres will be planted at a cost of about \$1,600,000. This planting includes not only conifers in the uplands, but also seeding and planting of native shrubs and grasses, as well as planting of 10.85 miles of riparian zones along Texas Bar and Oriental Creeks with native hardwood trees and shrubs.

Additional reforestation planned under the South Tower Restoration Projects (not included in this proposal) will amount to 453 acres at a cost of \$225,000.

b. Proposal objectives.

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1. Increase the available rearing habitat for anadromous salmonids. Improve habitat connectivity for resident salmonids.
 2. Halt degradation and speed recovery of fish habitat.
 3. Improve rearing and spawning habitat for resident salmonids.
 4. Restore hydrologic function, reduce erosion.
 5. Reduce erosion, reduce potential for catastrophic road failures.
 6. Enhance, or restore, or halt degradation of “special” wildlife habitat areas.
 7. Increase longevity of snag habitat.
 8. Enhance quality of wildlife forage. Disperse upland wildlife species across the area, reducing concentrations.
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c. Rationale and significance to Regional Programs.

The projects included in this proposal address Measure 7.6B.5, by restoring hydrologic functions, reducing risks of catastrophic road failures to tributaries of the North Fork John Day River.

The projects address Measure 7.6B.4 by giving priority to actions that maximize the desired result per dollar spent and to actions that have a high probability of succeeding at a reasonable cost.

Measure 7.6C.5 calls for Federal land and water management agencies, states, tribes, and private landowners to take all steps necessary to comply with habitat objectives. The proposed projects will help mitigate the effects both of the Tower Fire, as well as the negative effects of past management activities.

Wy Kan Ush Me Wa Kush Wit identifies the need for active habitat restoration where watershed or stream restoration would not occur via natural processes for prolonged periods. Such is the case in the South Tower Fire Recovery Projects area. As an example, road obliteration will greatly accelerate recovery of hydrologic functions, when compared to natural recovery.

d. Project history

e. Methods.

The Tower Fire Ecosystem Analysis characterized the effects on resources of the fire. It made recommendations for protection of fragile resources and for fire recovery, as well as for correction of negative effects caused by past management activities. Following the ecosystem analysis, the Post-Fire Recovery Strategy established a time line for accomplishment of specific actions. Most of the projects proposed here follow directly from those two documents:

1. Replace 6 culverts, and modify 2 culverts.
2. Eliminate 2 stockponds, and construct 4.5 miles of riparian fence to exclude cattle, and plant enclosed riparian zone.
3. Place large trees, complete with root wads in Big Creek to increase fish habitat complexity.

4. Obliterate 22.1 miles of closed road. Repair 4.5 miles of closed road, currently used as all terrain vehicle trails.
5. Repair 40.5 miles of open roads. Includes construction/repair/removal of cross drains and culverts, placement of rock, and reduction of fill heights to reduce potential for failure.
6. Fence and/or repair 2 ponds, fence and restore 2 springs, fence 3 meadows.
7. Remove 1/3 to 3/4 of the crown from large, dead standing trees on about 1,910 acres.
8. Seed grasses and shrubs on 1100 acres. Supplemental forage seeding on 250 acres. Fertilize 750 acres.

f. Facilities and equipment.

g. References.

Section 8. Relationships to other projects

This project complements three ongoing BPA projects currently funded in FY '98 and proposed to continue in FY '99.

Project 8400800 NFJD Habitat Improvement provides operations and maintenance funding to protect BPA's investment in fish project work completed between 1984-1992.

Project 9303800 NFJD Area Riparian Fencing provides operations and maintenance funding to protect BPA's investment in riparian recovery through electric and barbed wire fencing. The project began in 1993.

Project 9605300 NFJD River Dredge Tailings Restoration in its fourth year of floodplain restoration activities.

All three complementary projects have completed activities in the South Tower project area and propose future project work in this area.

Section 9. Key personnel

North Fork John Day District Ranger
Craig Smith-Dixon

Section 10. Information/technology transfer

Interim and final report accomplishments presented at local workshops, i.e., BMNRI sponsored.