

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

Section 1. General administrative information

**Genetic Analysis of Native Fish on the Duck
Valley Indian Reservation**

Bonneville project number, if an ongoing project 9020

Business name of agency, institution or organization requesting funding
Shoshone-Paiute Tribes

Business acronym (if appropriate) Sho-Pai Tribes

Proposal contact person or principal investigator:

Name	<u>Guy Dodson Sr.</u>
Mailing Address	<u>Box 219</u>
City, ST Zip	<u>Owyhee, NV 89832</u>
Phone	<u>208-759-3246</u>
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Subcontractors.

Organization	Mailing Address	City, ST Zip	Contact Name
MSE Technology	381 Shonp Ave	Idaho Falls, ID 83401	Dave Laudman

NPPC Program Measure Number(s) which this project addresses.
10.8C.2,

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

Other planning document references.

Duck Valley Indian Reservation (DVIR) Natural Resources Plan

Subbasin.

Upper Snake River subbasin, Owyhee River subbasin

Short description.

This project in accordance with the Northwest Power Planning Councils (NPPC) measures determines the genetic purity of the native fish in the Owyhee River and Snake River subbasins.

Section 2. Key words

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

Other keywords.

Stock Identification

Section 3. Relationships to other Bonneville projects

Project #	Project title/description	Nature of relationship

Section 4. Objectives, tasks and schedules

Objectives and tasks

Obj 1,2,3	Objective	Task a,b,c	Task
1	Identify resident trout species	a	collect fish in Owyhee River and tributaries
		b	Perform genetic analysis on resident fish
		c	record and report results

Objective schedules and costs

Objective #	Start Date mm/yyyy	End Date mm/yyyy	Cost %
1	04/1999	03/2000	100

Schedule constraints.

The only constraints that may cause schedule changes or delays would be the inclement weather that often occurs in the Duck Valley area. The other problem would be collection of fish and transport to laboratory in a timely manner.

Completion date.

2005

Section 5. Budget

FY99 budget by line item

Item	Note	FY99
Personnel	partial wages of Director, Biologist and part time employee	\$25,000.00
Fringe benefits		
Supplies, materials, non-expendable property	cost of supplies for field work	\$40,000.00
Operations & maintenance		
Capital acquisitions or improvements (e.g. land, buildings, major equip.)	ORV for transport to remote location	\$7000.00
PIT tags	# of tags:	
Travel	transportation in the field and to transport fish	\$15,000.00
Indirect costs		\$23,000.00
Subcontracts	laboratory to do genetic work	\$40,000.00
Other		
TOTAL		\$150,000.00

Outyear costs

Outyear costs	FY2000	FY01	FY02	FY03
Total budget	\$150,000.00	\$150,000.00	\$150,000.00	\$150,000.00
O&M as % of total	0	0	0	0

Section 6. Abstract

In accordance with the NWPPC measures the Shoshone-Paiute Tribes wish to initiate a

genetic inventory of the native fish in the waters on the Reservation. According to work done off the Reservation (BLM), there are genetically pure strains of redband trout in the Owyhee River downstream of the Reservation. Since the Council has called for a complete stock identification of the fish in the Columbia Basin and our Tribes would like to initiate this work as soon as possible. This work will benefit the Tribes and in helping us know where these pure strains of fish are and then how to protect and enhance their habitat. This project will assist our staff in identifying and quantifying the various stocks of fish and their locations. The estimated time for completion of all streams on the Reservation is five years.

The expected outcome of this project is to determine the populations and species of trout in the river and streams of the Reservation as well as to increase the natural reproduction of resident trout. It is the Tribes eventual goal to have a suitable habitat for anadromous fish to once again return to the Owyhee River basin. This project will work with the Tribes Habitat Enhancement project to help protect the areas known to have genetically pure strains of fish. Also, new areas will be evaluated for protection and enhancement as the project continues.

Section 7. Project description

a. Technical and/or scientific background.

The Duck Valley Indian Reservation is located in Idaho and Nevada. The Owyhee River enters the Reservation at the southeast corner in Nevada and exits in the northwest corner of the Reservation in Idaho, continuing into Oregon where it enters the Snake River. The surface water resources of the Reservation consists of the Owyhee River, two man-made lakes, over 350 miles of tributary streams, many fresh water stock ponds, and a new proposed man-made lake in the Billy Shaw slough area.

This program will be funded by Bonneville Power Administration as partial substitution for the loss of resident fish habitat due to the construction of federal and non-federal hydroelectric dams on the Columbia and Snake Rivers. These dams resulted in the complete abolishment of anadromous fish and greatly disturbed the habitat for native resident fish from the Owyhee River and its tributaries on the Reservation. The loss adversely impacted our tribal treaty rights and natural resources, as well as negatively impacting our social, cultural, and economic resources on the Duck Valley Indian Reservation.

We propose to do a complete genetic analysis of the resident fish of the Duck Valley Indian Reservation. This work will encompass work on the Owyhee River, all its tributaries including Mary's Creek, and many unnamed streams flowing on the Reservation. Fish will be collected with electroshocker and rod & reel technique and transported to a laboratory for genetic work. All data will be recorded during collection and results included in quarterly and annual reports to BPA. This will be done in the mid to late summer in order to avoid any spawning fish in these streams. The purpose of this task is to identify pure strains of trout on the Reservation and to then purpose

implementation measures to protect and enhance these populations of genetically pure trout populations.

All work will be completed under the direction of Guy Dodson Sr. (Director of the Habitat, Parks, Fish and Game Department) (HPFG). The following key personnel will also been important in the completion of this work:

Personnel:

Guy Dodson Sr. - Director Habitat, Parks Fish and Game
Vincent Pero - Tribal Biologist
Reggie Premo - Fisheries/Wildlife Technician

b. Proposal objectives.

The specific objectives for this project for Fiscal Year 1999 are as follows:

Objectives:

1. Identify resident trout species and determine populations.

Expected Outcomes/Products:

1. Compiled database of species, distribution, and populations of resident fish on the Duck Valley Indian Reservation.

This database will include but not be limited to, water temperatures, spawning habitat areas (quality and quantity), species composition and population, flows, water quality. All information will be entered into a database for use by scientists in the Columbia Basin and elsewhere. To date there is no, or very little information available on the Owyhee River subbasin, and with this project we hope to compile a complete database of the above information.

c. Rationale and significance to Regional Programs.

The first objective and the focus of most attention in Fiscal Year 98 will be to initiate a comprehensive genetic sampling program of the native trout in the Owyhee Basin on and near the Duck Valley Indian Reservation. There are known populations of genetically pure redband trout located in the Owyhee River downstream of the Reservation (pers. comm. Bruce Zoellick 1997, BLM), as well as many streams located near the Reservation. In accordance with the Northwest Power Planning Council's measure 10.8C.2 the Tribes will begin this program in the Spring of 1998 with sampling taking place first at known locations of redband trout (pers. comm. tribal members); Mary's Creek, Fawn Creek, Miller Creek, Skull Creek, and the Owyhee River. Upon completion of this sampling, additional sampling will take place at other locations on/near the Reservation (Reed Cr., Summit Cr.). Many of the other streams do not have names but fish were observed in these waters during the summer 97 field season by the tribal

biologist.

d. Project history

New Project - has not been addressed by RFM or CBFWA

e. Methods.

Objective 1: Identify resident trout on the Duck Valley Indian Reservation and determine populations of fish and invertebrates.

This objective will be addressed first and with the most effort on Mary's Creek, Skull Creek, Fawn Creek, Miller Creek, and the Owyhee River. Time and weather permitting analysis will occur on other streams of the Reservation. Many of the streams do not have names but will be named with location descriptions upon fish collection.

Task 1.1: Perform genetic analysis of resident trout in the above named streams/river to determine genetic stock and purity. Fish will be collected from the above named streams using a backpack electrofisher and dipnet.

Fish will be collected from designated strata (1997 habitat assessment) in the above streams. Collected fish will be put on ice in zip-lock bag and deep frozen for transport to genetic laboratory.

Task 1.2: Record and report all results to BPA and other fish managers in the Columbia Basin and elsewhere.

f. Facilities and equipment.

The Habitat, Parks, Fish and Game Department of the Shoshone-Paiute Tribes is currently being run from an office building located on the Duck Valley Reservation. The office is equipped with computers (including scanner, printer, etc.) for the Director, Biologist, and secretary.

We have two 1997 4x4 pick-up trucks that are being leased through the Habitat Enhancement program as well as two vehicles that are used for our wildlife and parks program. The Habitat Enhancement program has/or purchased the following equipment:

Gill nets

Lake survey equipment (sechie disc, plankton net, dredge, etc)

Electroshocker (stream)

Water quality meter (D.O, Ph, Temp)

Substrate sampler

Various hand and power tools

16' John boat

Snorkel equipment (wetsuits, masks, etc)

Coolers
Refrigerator/freezer
Two way vehicle radios

g. References.

Zoellick, Bruce. 1997. Personnel communication during discussion regarding trout species and previous work in the Owyhee River subbasin.
Idaho Bureau of Land Management, Boise, Idaho.

Section 8. Relationships to other projects

This project will complement two other projects currently being funded by BPA. The Tribes have a resident fish stocking program which enables our dept. to stock fish in our Reservoirs. With this genetic analysis we will be able to determine if our fish in the reservoirs are mixing with wild fish, or if fish that have been stocked in Wildhorse Reservoir are populating with the wild stocks on the Reservation. The Habitat Enhancement project will help in protecting areas that have genetically pure stocks of fish by providing these fish undisturbed areas of stream to spawn. Also, we are currently nearing the end of the "Final Engineering and Design" phase of the Billy Shaw Wetlands area project. This stock identification will allow us to know where the pure strains of fish are in hopes of providing a natural system in Billy Shaw. It is our goal to stock pure strains of fish in Billy Shaw and maintain these populations in a natural system. This project is incorporated with Shoshone-Paiute Tribes Wildlife and Parks (W&P) and Wildhorse Marina and RV Park programs which is under the administration of the Habitat, Parks, Fish and Game Department. We have found that by incorporating all of these programs into one department the office is more efficient and effective in helping to enhance and protect our fish and game on the Reservation. It is the hope of the Tribes to have self sustaining wildlife, fisheries, and clean cool free flowing water on the Reservation for the enjoyment of all, both Indians and non-Indians. We are working for the good of the entire Owyhee Basin and Columbia Basin ecosystem and would like to have a place for both sportsman and recreationalists to come and enjoy.

Section 9. Key personnel

Guy Dodson Sr. Director- Habitat, Parks, Fish and Game Department

Responsible for the day-to-day operation of the department. Attends meetings sponsored by Tribal Council, Northwest Power Planning Council, CBFWA and other important groups pertinent to this project(s). FTE (2080hrs)

RESUME

Guy Dodson Sr. - Project Director

Education

Bacon Jr. College A.A
University Nevada at Reno
May 1979

Boise State University 3 quarters
Boise Idaho

Work Experience

April 1997 - Present

Director - Habitat, Parks, Fish and Game
Shoshone-Paiute Tribes-Duck Valley Indian
Reservation
Owyhee NV 89832

January 1996- Present

Director - Billy Shaw Wetlands Project
Shoshone-Paiute Tribes-Duck Valley Indian
Reservation
Owyhee NV 89832

January 1990 - December 1996

Mental Health Director (Acting)
Owyhee Hospital
Shoshone-Paiute Tribes-Duck Valley Indian
Reservation
Owyhee NV 89832

Previous work has included administration of contracts, grants, and programs for the Shoshone-Paiute Tribes including, but not limited to: education, vocational training, Dept. of Labor, EEOC, Job Corps, Job Training Partnership Act, Bureau of Indian Affairs.

Experienced in working with large and diverse groups of individuals and agencies. Experienced in the administration of large construction projects as well as participation in actual arena of labor for completion (ie. carpentry, pipelayer, masonry etc.)

Vincent Pero Tribal Biologist- Habitat, Parks, Fish and Game Department
Responsible for the biological aspects of the project(s), as well as the day-to-day operation of the temporary crew. Attends meetings pertinent to the project(s). (FTE (2080hrs)

Resume

Vincent D. Pero

Education

University of Idaho - B.S.
Moscow Idaho
May 1996

Work Experience

March 1997-Present	Tribal Biologist - Habitat, Parks, Fish and Game Shoshone-Paiute Tribes-Duck Valley Indian Reservation Owyhee, NV
May 1996-March 1997	University of Idaho Fisheries Technician

My work experience includes five years as a field technician in fisheries work. Working with anadromous and resident fish as well as many habitat projects for Idaho Department of Fish and Game. I have construction experience both in Idaho and New York states, and am currently finishing up my first year as Tribal Biologist for the Tribes. My experience also includes work with the University of Idaho analyzing data and radio tracking steelhead and chinook salmon.

During this work I have been responsible for supervision of a four man crew, figuring budgets for many programs related to the Habitat Enhancement Project, attending pertinent meetings with state and federal agencies, writing proposal, reading and responding to various EA's and EIS's, and daily operation of our program. The work that has been completed so far in our program are my most recent job completions to date.

Section 10. Information/technology transfer

The information gathered from this project will be available at the HPFG Department during normal business hours. We will also have the information available via e-mail or US mail. The data will be available as a database at the conclusion of this project with limited information available throughout the course of this work. Upon completion of the genetic inventory project and the fisheries evaluations, most of the data will be available as publications. The information gathered during the course of this project is new information and hopefully the data and observations will be able to be used by other scientists to better help them work with the native trouts of the inland Northwest.