
PART I - ADMINISTRATIVE

Section 1. General administrative information

Title of project

Develop Management Plan & Assess Fish & Wildlife - Owyhee Basin,
D.V.I. R.

BPA project number: 20536

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

Business name of agency, institution or organization requesting funding
Shoshone-Paiute Tribes of the Duck Valley Indian Reservation

Business acronym (if appropriate) Sho-Pai Tribes - DVIR

Proposal contact person or principal investigator:

Name	<u>Guy Dodson Sr.</u>
Mailing Address	<u>P.O. Box 219</u>
City, ST Zip	<u>Owyhee, Nevada 89832</u>
Phone	<u>208-759-3246</u>
Fax	<u>208-759-3248</u>
Email address	<u>dvirfg@aol.com</u>

NPPC Program Measure Number(s) which this project addresses

Section (§) 2.1; §2.1A.1 ; §2.2A ; §2.2E6; §2.2F1; §2.2H; §7.1B; §7.1C; §7.10K; §8.5C;
§10.1; §10.1A; §10.1E; §10.1E1; §10.2; §10.2A.2; §10.2B; §10.3E9; §10.5; §10.5B;
§10.5B1; §10.5B2; §10.8C (all); §11.1; §11.2D; §11.3A; §11.3C; §11.3G; §11.5; §11.5A.

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

FERC relicensing considerations of the Hells Canyon Complex relative to the 1999
FCRPS (Hydropower Operations) Biological Opinion, NMFS; USFWS status review of
reband trout pursuant to ESA listing

Other planning document references

CBFWA-Resident Fish Managers (1997) Multi-Year Implementation Plan
Federal MOA on Bonneville Power Administration Fish & Wildlife restoration funding
Department of Energy / BPA Tribal Policy
State of Idaho and State of Nevada Fish Management Plans affecting the Owyhee Basin
Independent Scientific Group (1996) Return to the River / (1997) Review of Columbia
Basin Fish and Wildlife Program
NPPC Regional Multi-Species Framework Project/Process/Documents

Short description

Design a comprehensive (umbrella) fish & wildlife management program for the Owyhee River basin within the Duck Valley Indian Reservation - for the cost-effective restoration of its natural ecosystem for the benefit of the Shoshone-Paiute Tribe & society.

Target species

Redband trout; bull trout; introduced trout species (e.g., rainbow, cutthroat, brook) for put and take fisheries; other resident fish species comprising the native community; anadromous salmonids (reintroduction/off-site mitigation); all wildlife species.

Section 2. Sorting and evaluation

Subbasin

Owyhee

Evaluation Process Sort

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

Section 3. Relationships to other Bonneville projects

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

Project #	Project title/description
20536	Develop Management Plan & Assess Fish & Wildlife Of The Owyhee Basin, DVIR
20040	Develop a Fish & Wildlife Management Plan for the Owyhee Basin, DVIR
20041	Develop a Fish & Wildlife Conservation Law Enforcement Plan, DVIR
20094	Assess Resident Fish Stocks Of The Owyhee Basin, DVIR
9701100	Enhance and Protect Habitat and Riparian Areas on DVIR
8815600	Implement Fishery Stocking Program Consistent with Native Fish Conservation
20092	Inventory Wildlife Species & Populations Of The Owyhee Basin, DVIR

20093	Evaluate the Feasibility for Anadromous Fish Reintroduction in the Owyhee
-------	---

Other dependent or critically-related projects

Project #	Project title/description	Nature of relationship
9701100	Enhance and Protect Habitat & Riparian Areas on the Duck Valley Indian Res	Habitat enhancement is a critical need for comprehensive fish & wildlife management of the Owyhee Basin DVIR
9501500	Lake Billy Shaw Wetlands Catch & Release Fishery O&M	A new BPA- funded reservoir was completed in 1998 on the DVIR -- the development of its fisheries needs to be integrated within a comprehensive fish management plan.
8815600	Stocking Fish in Lakes and Streams on the Duck Valley Indian Reservation	Stocking of hatchery trout in reservoirs and streams has been implemented for many years to provide fisheries and economic benefits to the DVIR -- this program needs to be re-evaluated & integrated in the rationale of a comprehensive fish management plan.
9500600	Shoshone-Bannock/Shoshone-Paiute Joint Culture Facility	A BPA-funded fish culture facility is being developed to provide trout production to supplement fisheries on Duck Valley and Fort Hall reservations. Its operation should be coordinated with the comprehensive Owyhee Basin resident fish management plan.

Section 4. Objectives, tasks and schedules

Past accomplishments

Year	Accomplishment	Met biological objectives?
0	Not Applicable - new project	

Objectives and tasks

Obj 1,2,3	Objective	Task a,b,c	Task
1	Coordinate a Comprehensive Fish, Wildlife and Habitat Restoration Plan for the DVIR -- including Fish & Wildlife Management Planning, Fish Stock Assessment, and Wildlife Inventory of the Owyhee Basin, DVIR component.	a	Coordinate project and budget development of individual Owyhee Basin DVIR Fish & Wildlife projects via the regional (CBFWA/NPPC/BPA) project implementation process.
1		b	Provide fiscal accountability and budget oversight for implementation of coordinated Shoshone-Paiute fish & wildlife projects in the Owyhee Basin.
1		c	Coordinate project Adaptive Management via monitoring, evaluation, and reporting requirements -- both for individual projects and as a DVIR-wide restoration program.
1		d	Seek opportunities for cost-sharing and collaborative research & restoration efforts with relevant entities, including: private landowners, local, state, and federal governmental agencies.
2	Develop a Comprehensive Fish & Wildlife Management Plan for the Owyhee Basin, Duck Valley Indian Reservation (DVIR)		(see sub-proposal for more detail)
3	Develop a Cooperative Fish & Wildlife Conservation Law Enforcement Plan, DVIR		(see sub-proposal for more detail)
4	Assess Resident Fish Stocks of the Owyhee Basin, DVIR		(see sub-proposal for more detail)
5	Enhance and Protect Habitat and Riparian Areas on DVIR		(see sub-proposal for more detail)
6	Implement Fishery Stocking Program Consistent with Native Fish Conservation		(see sub-proposal for more detail)
7	Inventory Wildlife Species & Populations of the Owyhee Basin, DVIR		(see sub-proposal for more detail)
8	Evaluate the Feasibility for		(see sub-proposal for more detail)

	Anadromous Fish Reintroduction into the Owyhee River Basin, DVIR		
9	Lake Billy Shaw Operations & Maintenance and Evaluation (O&M, M&E)		(see sub-proposal for more detail)

Objective schedules and costs

Obj #	Start date mm/yyyy	End date mm/yyyy	Measureable biological objective(s)	Milestone	FY2000 Cost %
1	1/2000	12/2000	Cost-effective expenditure of mitigation & enhancement funds via fiscal accountability, adaptive management & project coordination.	CBFWA/NPPC/ BPA project implementation process & schedule.	10.2%
2	1/2000	12/2000	Maximize effectiveness of fish & wildlife restoration efforts on the DVIR via implementation of a comprehensive fish & wildlife management plan that is based on scientific principles and consistent with regional planning framework.	a) Completion of draft Fish & wildlife management plan. b) Review and revision of plan. c) Implement. of plan. d) Annual cycle of adaptive mgt. of plan.	1.7%
3	1/2000	12/2000	Protect fish, wildlife, and habitat resources via enforcement of existing Tribal code, state, and federal laws.	a) Review existing Shoshone-Paiute fish & wildlife law enforcement. b) Develop plan for cooperative enhanced enforcement efforts. c) Implement plan and increase protection of fish, wildlife & their habitats.	3.1%
4	1/2000	12/2000	Implement scientific	a) Assess &	16.9%

			management of Owyhee Basin fish resources using input on current species composition, stock status, and genetic composition. Prevent further loss of genetic identity and diversity of native fish populations in the Owyhee Basin, DVIR.	summarize info on anadromous fish losses. b) Inventory current distribution and abundance of resident fish stocks on DVIR. c) Evaluate genetic composition of resident fish stocks. d) Use stock assessment & genetic analysis for scientific mgt.	
5	1/2000	12/2000	Enhance and Protect Habitat and Riparian Areas on DVIR	a) Protect natural spring systems. b) Protect and enhance the riparian zone of the Owyhee River and tributaries. c) Collect ancillary biological data.	22.5%
6	1/2000	12/2000	Implement Fishery Stocking Program Consistent with Native Fish Conservation	a) Develop artificial production plan b) Design stocking strategy for closed reservoirs c) Design stocking strategy for streams inhabited by native fish	9.9%
%	1/2000	12/2000	Initiate scientific management of Owyhee Basin wildlife resources	a) Assess & summarize existing data on	14.2%

			using input on current species composition, distribution abundance, and status. Identify potential conditions or activities limiting wildlife communities and feasible enhancement measures.	wildlife losses. b) Inventory current distribution and abundance of wildlife species on DVIR. c) Use wildlife inventory data in conjunction with habitat and land use activities for scientific mgt.	
8	1/2000	12/2000	Evaluate potential for increasing fish production in the Owyhee Basin by reintroduction of anadromous fishes.	a) Summarize anadromous fish losses. b) Assessment of feasibility of reintroduction alternatives. c) If feasible alternatives exist, develop plan for regional review & future implementation.	4.5%
9	1/2000	12/2004	Lake Billy Shaw Operations & Maintenance and Evaluation (O&M, M&E)	a) protect lake shoreline from degradation. b) Information & technology transfer c) Dam operations & maintenance of screens	17.0%
				Total	100.00%

Schedule constraints

None identified

Completion date

2005

Section 5. Budget

FY99 project budget (BPA obligated):

FY2000 budget by line item

Item	Note	% of total	FY2000
Personnel	{Umbrella Project: 0.66 FTE -- Fish, Wildlife and Parks Director; 0.1 FTE Fishery Biologist }	%41	55,500
Fringe benefits	{included in Personnel category above }	%0	
Supplies, materials, non-expendable property		%0	
Operations & maintenance		%0	
Capital acquisitions or improvements (e.g. land, buildings, major equip.)		%0	
NEPA costs		%0	
Construction-related support		%0	
PIT tags	# of tags: None	%0	
Travel		%11	14,500
Indirect costs	{26.6% of above Items }	%12	15,820
Subcontractor	{ Fisheries Consultant }	%36	48,000
Other		%0	
TOTAL BPA FY2000 BUDGET REQUEST			\$133,820

Cost sharing

Organization	Item or service provided	% total project cost (incl. BPA)	Amount (\$)
	None identified at this time - we will seek future opportunities	%0	
		%0	
		%0	
		%0	
Total project cost (including BPA portion)			\$133,820

Outyear costs

	FY2001	FY02	FY03	FY04
Total budget	\$141,000	\$148,000	\$155,000	\$163,000

Section 6. References

Watershed?	Reference
<input type="checkbox"/>	Armour, C.L. 1990. Options for reintroducing salmon and steelhead above mid-Snake River Dams. USFWS, National Ecology Research Center, Fort Collins, Colorado.
<input type="checkbox"/>	BPA. 1997. Billy Shaw Dam and Reservoir -- Environmental Assessment and finding of no significant impacts. DOE/EA--1167.
<input type="checkbox"/>	Bureau of Reclamation. 1988. Review of the potential for constructing a fishing reservoir, Duck Valley Indian Reservation, Idaho-Nevada. Report to the Power Planning Council.
<input type="checkbox"/>	Burge, H.L. and W.H. Miller. 1993a. Fishery Management on the Duck Valley Indian Reservation -- Shoshone-Paiute Tribes. USFWS 1993 Annual Report, December 1993.
<input type="checkbox"/>	Burge, H.L. and W.H. Miller. 1993b. Fishery Management on the Duck Valley Indian Reservation -- Shoshone-Paiute Tribes. USFWS 1992 Annual Report, January 1993.
<input type="checkbox"/>	Burge, H.L. and W.H. Miller. 1991. Fishery Management on the Duck Valley Indian Reservation -- Shoshone-Paiute Tribes. USFWS 1991 Annual Report, December 1991.
<input type="checkbox"/>	Burge, H.L. and W.H. Miller. 1990. Fishery Management Plan for the Duck Valley Indian Reservation -- Shoshone-Paiute Tribe. USFWS Report, October, 1990
<input type="checkbox"/>	CH2M Hill. 1992. Joint culture facilities for resident fish substitution program, Snake River above Hells Canyon, Idaho. Feasibility study report. Bonneville Power Administration. Project No. 91-27.
<input type="checkbox"/>	Diggs, D. 1985. Evaluation of stocking commercially produced trout on the Duck Valley Indian Reservation in 1981 and 1982. USFWS Report.
<input type="checkbox"/>	Dodson Sr., G. 1997. Shoshone Paiute Tribes Fishery Management Plan. Submitted to Bonneville Power Administration, February 28, 1997.
<input type="checkbox"/>	Duck Valley Tribal Council. 1991. Duck Valley Indian Reservation Soil Conservation Plan. Owyhee Nevada.
<input type="checkbox"/>	Duck Valley Tribal Council. 1994. Duck Valley Indian Reservation Natural Resource Plan. Owyhee, Nevada.
<input type="checkbox"/>	Framework Project Ecological Workgroup. 1998. Development of a Regional Framework for Fish and Wildlife Restoration in the Columbia River Basin -- A Proposed Scientific Foundation for the Restoration of Fish and Wildlife in the Columbia River Basin. NPPC.
<input type="checkbox"/>	Idaho Department of Fish and Game (IDFG). 1996. Fisheries Management Plan, 1996-2000. Idaho Department of Fish and Game, Boise, Idaho.
<input type="checkbox"/>	Idaho Department of Fish and Game (IDFG). 1996. Idaho Wild Fish Management Policy. Idaho Department of Fish and Game, Boise, Idaho.
<input type="checkbox"/>	Independent Scientific Group (ISG). 1996. Return to the River -- Restoration of Salmonid Fishes in the Columbia River Ecosystem. Northwest Power

	Planning Council, Pre-Publication Copy 96-6.
<input type="checkbox"/>	Independent Scientific Group (ISG). 1997. Review of the Columbia River Basin Fish & Wildlife Program as directed by the 1996 Amendment to the Power Act. Northwest Power Planning Council, ISRP 97-1.
<input type="checkbox"/>	Independent Scientific Group (ISG). 1998. Review of the Columbia River Basin Fish & Wildlife Program for FY 1999 as directed by the 1996 Amendment to the Power Act. Northwest Power Planning Council, ISRP 98-1a.
<input type="checkbox"/>	Kalispel, Colville, Spokane, Coeur d' Alene, and Kootenai tribes, and WDFW. 1998. A Holistic Vision for Columbia Basin Fish & Wildlife Restoration – with equitable consideration for anadromous & resident fish in the “Blocked Area”. Regional Framework
<input type="checkbox"/>	Li, H.W., C.B. Schreck, C.E. Bond, and R. Rextad. 1987. Factors influencing changes in fish assemblages of Pacific Northwest streams. In: W.J. Matthews and D.C. Hains, Editors. Community and evolutionary ecology of North American stream fishes. Univ. Ok
<input type="checkbox"/>	Louisiana State Division of Administration. 1996. Manageware -- a practical guide to managing for results. Version 2.0. A Publication of the Office of Planning and Budget, Division of Administration, State of Louisiana.
<input type="checkbox"/>	Lyons, J., L. Wang, and T.D. Simonson. 1996. Development and validation of an index of biotic integrity for coldwater streams in Wisconsin. North American Journal of Fisheries Management 16:241-256.
<input type="checkbox"/>	Miller, D.L., and 13 co-authors. 1988. Regional application of an index of biotic integrity for use in water resource management. Fisheries 13:12-20.
<input type="checkbox"/>	Moyle, P.B. and G.M. Sato. 1991. On the design of preserves to protect native fishes. Battle Against Extinction: Native Fish Management in the American West. W.L. Minckley and J.E. Deacon. Tucson, University of Arizona Press: 155-169.
<input type="checkbox"/>	National Research Council (NRC). 1995. Upstream: Salmon and Society in the Pacific Northwest. Washington, DC. (Prepublication Copy).
<input type="checkbox"/>	Nez Perce, Umatilla, Warm Springs and Yakama Tribes. 1995. WY-KAN-USH-MI WA-KISH-WIT, The Spirit of the Salmon. The Columbia River Anadromous Fish Plan of the Shoshone-Paiute, Umatilla, Warm Springs and Yakama Tribes.
<input type="checkbox"/>	Northwest Power Planning Council (NPPC). 1995. Columbia River Basin Fish and Wildlife Program. Publication 94-55. September 13, 1995. Northwest Power Planning Council, Portland, Oregon
<input type="checkbox"/>	Resident Fish Manager’s Caucus of the Columbia Basin Fish & Wildlife Authority (RFM-CBFWA). 1997. Draft Multi-Year Implementation Plan for Resident Fish Protection, Enhancement & Mitigation in the Columbia River Basin. April 24, 1997 Draft. CBFWA.
<input type="checkbox"/>	Schmitt, R., W. Steele, Jr., and R. P. Jones, Jr. 1995. Proposed Recovery Plan for Snake River salmon. March 1995. U.S. Department of Commerce. National Oceanic and Atmospheric Administration, National Marine Fisheries Service.

<input type="checkbox"/>	State of Idaho. 1996. Bull Trout Conservation Plan. Office of the Governor, State of Idaho. July 1, 1996.
<input type="checkbox"/>	Scholz, A., K. O’Laughlin, D. Geist, D. Peone, J. Uehara, L. Fields, T. Kleist, I. Zozaya, T. Peone, K., Teesatuskie. 1985. Compilation of information on salmon total run size, catch, and hydropower related losses in the Upper Columbia River Basin. UCUT#2
<input type="checkbox"/>	Stanford, J.A., and J.V. Ward. 1992. Management of aquatic resources in large catchments: recognizing interactions between ecosystem connectivity and environmental disturbance. Pages 91-126 In: R.J. Naiman (ed.), Watershed Management.
<input type="checkbox"/>	Vigg, S. (editor). 1995 Increased levels of harvest & habitat law enforcement and public awareness for anadromous salmonids and resident fish in the Columbia River Basin -- Project 92-024 Final Report for the demonstration period, 1992-94. June 31, 1995.
<input type="checkbox"/>	Vigg, S. and R. Stevens. 1996. Needs Assessment of Tribal law enforcement in Columbia River tributaries relative to anadromous salmonid mitigation & restoration. Final Report prepared on June 1, 1996 for CRITFC, by S.P. Cramer and Associates, Inc.
<input type="checkbox"/>	White Shield, Inc. 1990. Historical and future resource use to support Indian water claims, Duck Valley Indian Reservation. Draft Report to the Bureau of Indian Affairs.
<input type="checkbox"/>	Willis, D.W., and B.R. Murphy. 1996. Planning for sampling. Pages 1-15. In B.R. Murphy, and D.W. Willis, editors. Fisheries Techniques, 2nd Edition, American Fisheries Society, Bethesda, Maryland.
<input type="checkbox"/>	Zoellick, Bruce. 1997. Personnel communication regarding trout species and previous work in the Owyhee River subbasin. Letter & Attachments dated September 3, 1997. Idaho Bureau of Land Management, Boise, Idaho.
<input type="checkbox"/>	

PART II - NARRATIVE

Section 7. Abstract

This project is designed as the “*umbrella*” framework for all fish, wildlife, and watershed restoration efforts on the Duck Valley Indian Reservation (DVIR), Owyhee Basin. The vision of the Shoshone-Paiute Tribes is to achieve a healthy Owyhee River watershed within the Columbia River ecosystem -- which supports viable, genetically diverse and

naturally sustainable fish & wildlife communities. The individual sub-proposals comprise the Objectives of the umbrella project for the DVIR: 1) Develop a Fish & Wildlife Management Plan for the Owyhee Basin; 2) Develop a Fish & Wildlife Conservation Law Enforcement Plan; 3) Assess Resident Fish Stocks of the Owyhee Basin; 4) Enhance and Protect Habitat and Riparian Areas; 5) Implement Fishery Stocking Program Consistent with Native Fish Conservation; 6) Inventory Wildlife Species & Populations of the Owyhee Basin; and, 7) Evaluate the Feasibility for Anadromous Fish Reintroduction in the Owyhee. Specific, measurable objectives and outcomes for the individual projects will be presented in more detail in the sub-proposals. A comprehensive fishery management plan – based on an integrated natural resources framework and coordinated with regional planning efforts -- is needed to accomplish the Tribe’s vision. Many sections of the Council’s program support the Shoshone-Paiutes comprehensive mitigation & enhancement approach, including: § 2.1A; § 2.2A, § 2.2H, § 2.2E6, § 7.1C, § 8.5C, § 10.1A, § 10.1E, §10.2A1, § 10.2B, § 10.3E.9, § 10.5B, § 10.8C, § 11.2D. These sections include specific measures for resident fish & wildlife substitution and mitigation for anadromous fish losses above the Hells Canyon Complex.

Section 8. Project description

a. Technical and/or scientific background

The Duck Valley Indian Reservation (DVIR) encompasses about 240,000 acres -- 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 consist of the Owyhee River, two man-made reservoirs, over 350 miles of tributary streams, and the Billy Shaw dam and wetlands project completed in the fall of 1998.

The entire Owyhee Basin – encompassing the Duck Valley Indian Reservation (DVIR) -- is classified as a “*Blocked Area*” in the NPPC Fish and Wildlife Program (NPPC 1995; Section 10.8). The Owyhee Basin is in the upper Snake River Basin -- upstream from the Hells Canyon Complex that has completely blocked anadromous fish migrations for over 40 years (Hells Canyon Dam 1967; Oxbow Dam 1961; Brownlee Dam 1958). Prior to hydropower development the Owyhee Basin supported a large diverse community of native anadromous and resident fish populations. The complete extirpation of anadromous fish stocks from this area reduced the native salmonid species assemblage and greatly impacted the culture, religion and livelihood of the Shoshone and Paiute tribes that were dependent upon the once abundant anadromous fish resource. Resident fish and wildlife species in the subbasin were also impacted through lost productivity (absence of nutrient component attributable to anadromous fish) and habitat degradation relating to land-use practices (agriculture, grazing, logging, mining and municipal development) facilitated by hydropower development in the region.

The **vision** of the Shoshone-Paiute Tribes of Idaho & Nevada is to achieve a healthy Owyhee River watershed within the Columbia River ecosystem -- which supports viable, genetically diverse and naturally sustainable fish & wildlife communities. To the extent possible, the Tribe desires to restore all species and stocks of native fish & wildlife to their historic habitats within

the Duck Valley Indian Reservation. If dams and other anthropogenic impacts make full restoration of resident fish, anadromous fish, wildlife or other natural resources impossible at this time, the Tribe seeks long-term compensation for these losses, including mitigation and substitution¹.

As stated in the provisional Shoshone-Paiute Tribes Fishery Management Plan (letter from Guy Dodson Sr. to Bonneville Power Administration dated February 28, 1997), it is the wish of the Tribe to:

- “Preserve, protect and perpetuate such wildlife and provide for the citizens of the reservation to continued supplies of such wildlife for hunting, fishing, and trapping.”
- “Provide the continued supplies of fish and fishing opportunities for our tribal members for their subsistence, cultural, and economic needs”.

The Shoshone-Paiute Tribe vision is consistent with that of Columbia Basin resident fish managers: The **vision** of resident fish managers is to achieve a healthy Columbia River ecosystem which supports viable and genetically diverse resident fish species.

The desired outcome of the resident fish program implementation is to restore the health and viability of non-anadromous fish populations in order to achieve conservation, consumptive and non-consumptive management goals in the Columbia River Basin.

Strategic planning and funding of mitigation & enhancement projects is essential to achieve the resource management goals of the Shoshone-Paiute Tribes. A comprehensive fishery management plan – based on an integrated natural resources framework -- is needed to accomplish the Tribe’s vision. Furthermore, adequate funding from BIA, BPA, Federal Aid for Sport Fisheries Restoration and other sources will be essential for the development of a viable natural resources management program on the Duck Valley Indian Reservation.

The Shoshone-Paiute Tribes are in agreement with management principles stated in the resident fish Multi-year Implementation Work Plan (MYIP, CBFWA-RFM 1997):

- We recognize the importance of managing fish species assemblages in the Owyhee River Basin within an ecological framework, rather than just single species/waters.
- We also giving special consideration to native fish populations that are sensitive to artificial perturbations or listed under the ESA, e.g., redband trout and bull trout.
- We will be focus on ecosystem management over the next five years, including the development of a fisheries and watershed management plan for the Owyhee Basin.

The Shoshone-Paiute Tribe has received relatively little BPA-funding for mitigation and enhancement of resident fish & wildlife to date, i.e., about \$2.0 million during 1984-98 (Table 1). The major areas of funding for fish & wildlife enhancement on the Duck Valley Indian Reservation have been:

- | | |
|--|-----------|
| • Purchase of trout -- payment to U.S. Fish & Wildlife Service | \$794,401 |
| • Lake Billy Shaw reservoir feasibility studies | \$494,591 |
| • Owyhee River habitat restoration | \$703,000 |

In addition, BPA funded construction costs for Lake Billy Shaw Dam and a joint culture facility with the Shoshone- Bannock Tribes at the Fort Hall Reservation.

¹ Mitigation and substitution are described in the NPPC (1995) fish & wildlife program (the reader should also refer to Attachment II).

Table 1. Review of Shoshone-Paiute Tribes' fish & wildlife projects funded by BPA since the inception of the NPPC Fish & Wildlife Program amendment in 1984 (Source Kim Erdman, BPA Access Data Base).

Fiscal Year	ProjNum	ShortTitle	SummaryDescription	Budget Amount
1984	8380800	ANADROMOUS FISH PROGRAM GOALS: SHOSHONE – PAIUTE	Technical assistance grant to the Shoshone-Paiute Tribe to develop anadromous fish goals for the Columbia Basin.	\$7,900
Purchase Trout for Stocking in Reservoirs				
1988-1998	8815600	DUCK VALLEY RESIDENT FISH PROJECT	Fund fish purchase for Sheep Creek and Mtn. View Reservoirs on the Duck Valley Indian Reservation and contribute to management costs of the sport fishery at the reservoirs.	\$794,401
Lake Billy Shaw Studies				
1995	9501500	LAKE BILLY SHAW STUDY – DUCK VALLEY RESERVATION	Analyze feasibility of the Billy Shaw Reservoir on the Duck Valley Indian Reservation in order to develop an additional lake fishery .at this site.	\$224,766
1996	9501501	LAKE BILLY SHAW TRIBAL COORDINATOR	Hire a Tribal Coordinator for the Billy Shaw Reservoir project to oversee the design and other aspects.	\$49,325
1997	9501503	LAKE BILLY SHAW FINAL DESIGN, DUCK VALLEY	Gather technical field data and complete the final design for the construction of Lake Billy Shaw on the Duck Valley Indian Reservation.	\$185,000
1997	9501503	LAKE BILLY SHAW FINAL DESIGN, DUCK VALLEY	(same as above)	\$36,500
Subtotal:				\$495,591
Habitat Restoration				
1997	9701100	DUCK VALLEY RESERVATION HABITAT ENHANCEMENT	Restore fish habitat on the Shoshone-Paiute Tribal Reservation (Duck Valley) by repairing dikes, improving fish screens, and by doing instream, fencing, and planting along the Owyhee and other significant streams.	\$463,000
1998	9701100	DUCK VALLEY RESERVATION HABITAT ENHANCEMENT	(same as above)	\$240,000
Subtotal:				\$703,000
All Shoshone-Paiute Fish & Wildlife Enhancement Projects			1984-1998 Total	\$2,000,892

The amount of funding for Shoshone-Paiute fish & wildlife projects that CBFWA recommended for FY 1999 – i.e., \$617,997 -- was relatively low compared to the losses of anadromous fish in the Owyhee and the need for mitigation & enhancement on the Duck Valley Indian Reservation to realize potential fish & wildlife benefits. However, the ISRP recommended deferring the funding for the fish stocking projects, and approved only \$293,000 – for riparian habitat enhancement -- for FY 1999 funding.

b. Rationale and significance to Regional Programs

The Owyhee Basin “umbrella proposal” described here provides a cost-effective way to achieve the goals and objectives of the Council’s Fish & Wildlife Program and the Columbia Basin Fish & Wildlife Authority’s Multi-Year Implementation Plan (MYIP; CBFWA-RFM 1997) – with respect to the Owyhee River Basin. A comprehensive natural resources management plan is needed for the Duck Valley Indian Reservation in order to ensure that mitigation called for by the Power Act is realized -- for losses caused by the Federal Columbia River Power System (FCRPS) development and operation. The components of a fish & wildlife restoration plan relevant to the Owyhee Basin include:

- ◆ Assessment of anadromous fishes losses

- ◆ Mitigation and substitution of resident fish
- ◆ Long-term wildlife mitigation
- ◆ Restoration of fish & wildlife habitats contributing to overall watershed restoration
- ◆ Contribution of sub-basin restoration towards the health of the Columbia Basin ecosystem
- ◆ Monitoring & evaluation of progress towards goals, and adaptive management of future actions

The approach of the Shoshone-Paiute umbrella project is primarily for in-place (i.e., Owyhee Basin) mitigation, but could include both out-of-kind and in-kind mitigation. In-kind mitigation of losses of resident fish and wildlife is planned for the Owyhee Basin only. In-kind mitigation of losses of anadromous fishes would require either re-introduction or off-site mitigation. To date, proposed out-of-kind mitigation for anadromous fish losses has been primarily in terms of native resident fish enhancement and substitution of non-native species, i.e., put-and-take trout fisheries in closed systems. Wildlife mitigation in the Owyhee Basin has not been adequately assessed and is very limited to date.

The following Sections (§) from the Council’s Fish and Wildlife Program (NPPC 1995) describe goals, objectives, and specific measures that directly support the development of a comprehensive management plan and framework for the implementation of actions to restore the fish, wildlife, and habitats of the Owyhee Basin ecosystem.

§ 2.1: Systemwide Goal: A healthy Columbia River Basin.

§ 2.1A: Assess ecological health of Columbia River Basin.

§ 2.1A1: Explore methods to assess trends in ecosystem health.

§ 2.2A: Support native species in native habitats.

§ 2.2H: The need to learn from implementation (monitoring & evaluation).

§ 2.2E6: Criteria for establishing constraints on hydroproject operations, including (a) protection and rebuilding of weak native fish stocks and resident fish substitutions, (b) protection of tribal rights to fish at usual and accustomed fishing places and ceded areas.

§ 7.1B: Conserve genetic diversity

§ 7.1C: Collection of population status, life history and other data on wild and naturally spawning populations.

§ 7.10K: Passage into historic habitat.

§ 7.10K1: Where appropriate, determine the feasibility of providing passage above blockages to habitat caused by human development activities. Appropriate habitat includes areas where weak stocks are habitat limited and, therefore, would benefit from additional habitat.

§ 8.5C: Law enforcement and public education.

§ 10.1: Resident fish goal – The program goal for resident fish emphasizes the long-term sustainability of native fish in native habitats where possible. Use strategies of mitigation & substitution.

§ 10.1A: Principles for resident fish management strategies {watershed management, ecosystem diversity, productivity and stability, conservation of natural diversity of resident fish stocks}:

§ 10.1E: Project Implementation and selection

- Documentation of resident fish losses attributable to the FCRPS;
- adaptive management principles, and appropriate monitoring and evaluation efficacy;
- coordination with fish and wildlife agencies and tribes;
- compliance with the Program policies;
- achievement of biological results;
- assessment of trade-offs with anadromous fish and wildlife activities;
- development of a management plan with sound biological objectives;

- consultation and coordination with interested parties;
- estimated costs and a schedule for implementation and evaluation; and
- fulfillment of standards of the Northwest Power Act.

§ 10.1E1: Implementation of identified resident fish projects by 2006.

§10.2: Production and watershed principles.

§10.2A1: Address resident fish as well as anadromous fish in developing a plan for genetic diversity as called for in measure 7.1.D.1.

§ 10.2A.2: Address potential impacts on resident fish, where such impacts exist, in developing basinwide guidelines to minimize genetic and ecological impacts of hatchery fish on wild and naturally spawning species as called for in measure 7.2A.1.

§ 10.2B: Comprehensive Watershed Management

Good habitat is important for resident fish, just as it is for anadromous fish. The degraded condition of resident fish habitat in the Columbia River Basin often rivals that of anadromous fish. For this reason, the program provisions noted in § 7.7 (Cooperative Habitat Protection and Improvement with Private Landowners) should also apply to resident fish.

§ 10.3E.9: Acquire or construct a trout production facility and operate and maintain the facility for the production of native trout species for stocking on the Fort Hall Indian Reservation and elsewhere. Assess opportunities for joint production strategies with the Shoshone-Paiute Tribes, including the training of tribal members in fish culture.

§ 10.5: Bull trout and other native salmonid mitigation.

§ 10.5B: Study and Evaluate Native Salmonid Populations Above Hells Canyon Dam

§ 10.5B.1: In consultation with the Idaho Department of Fish and Game, Oregon Department of Fish and Wildlife, Shoshone-Bannock Tribes, Shoshone-Paiute Tribes and Burns Paiute Tribe, fund an investigation of the life history, habitat needs and threats to persistence of native salmonids upstream of Hells Canyon Dam in the Snake River and its tributaries.

§ 10.5B.2: In consultation with the Idaho Department of Fish and Game, Oregon Department of Fish and Wildlife, Shoshone-Bannock Tribes, Shoshone-Paiute Tribes and Burns Paiute Tribe, fund the initiation of a comprehensive genetic sampling program for native salmonids upstream of Hells Canyon Dam in the Snake River and its tributaries.

§ 10.8: Resident fish substitutions.

Salmon and steelhead probably never will be able to return to some areas of the basin because of blockages by dams. These include the areas above Chief Joseph and Grand Coulee dams and the Hells Canyon Complex, as well as other smaller blocked areas. In its analysis of the contribution of the hydropower system to salmon and steelhead losses, the Council has addressed the extent to which resident fish substitutions should be used to mitigate losses of salmon and steelhead production in these areas.

The Council has concluded that: 1) mitigation in blocked areas is appropriate where salmon and steelhead were affected by the development and operation of the hydroelectric projects; 2) to treat the Columbia River and its tributaries as a system, resident fish substitutions are reasonable for lost salmon and steelhead in areas where in-kind mitigation cannot occur; and 3) flexibility in approach is needed to develop a program that complements the activities of the fish and wildlife agencies and tribes and is based on the best available scientific knowledge. For substitution purposes, resident fish may include landlocked anadromous fish (e.g., white sturgeon, kokanee and coho), as well as traditionally defined resident fish species.

§ 10.8A: Resident Fish Substitutions Policy

The substitution of resident fish to make up for losses of anadromous fish in areas now permanently blocked to salmon and steelhead reflects the Council's resolve to address complex, long-term problems. Historical records show that the Columbia River Basin Indian tribes relied extensively on salmon and steelhead, and the permanent loss of these resources has had incalculable impacts on tribal economies, cultures and religions. Historically, the Council

approved projects in the areas above Chief Joseph/Grand Coulee, and in the blocked areas above Hell's Canyon Dam.

§ 10.8C: Resident Fish Substitution Projects Above Hells Canyon Dam

The following resident fish substitution activities and projects in the blocked area above Hells Canyon Dam will partially mitigate for salmon and steelhead losses incurred in this blocked area as a result of the construction and operation of hydropower projects in the Columbia River Basin.

Shoshone-Paiute Tribes:

§ 10.8C.1: Annually stock catchable and fingerling trout of the appropriate stocks in Duck Valley Indian Reservation lakes and streams.

§ 10.8C.2: Review Duck Valley Indian Reservation surface water and groundwater suitability for resident fish production facilities. Initiate a comprehensive genetic sampling program of the redband trout in Owyhee Basin. Based on results of these studies, develop and implement strategies to protect wild redband trout populations from potential impacts caused by hatchery programs.

§ 10.8C.3: Evaluate alternative sources of catchable and fingerling resident fish.

§ 10.8C.4: Analyze feasibility of developing an additional lake fishery at Coyote Sink. Submit feasibility study with recommendations to the Council. Implement upon Council approval of recommendations.

§ 10.8C.5: Implement, monitor and evaluate resident fish habitat improvement and protection measures at the Duck Valley Indian Reservation. Include the following habitat protection and improvement measures: 1) management recommendations for reservoir pool levels; 2) reservoir rehabilitation measures for non-game fish and aquatic vegetation control; 3) reservoir inlet and outlet screening; 4) improvement of recreational fishing sites; 5) stream riparian zone restoration by planting vegetation, fencing overgrazed areas and stream bank stabilization; and 6) base-line water quality survey to assess contaminants that may affect trout populations.

§ 10.8C.6: Acquire or construct a trout production facility and operate and maintain the facility for the production of trout for stocking on the Duck Valley Indian Reservation and elsewhere. Assess opportunities for joint production strategies with the Shoshone-Bannock Tribe, including the training of tribal members in fish culture.

§ 10.8C.7: Bonneville -- Fund the Shoshone-Paiute Tribe projects listed above.

§ 11.1: Wildlife Program goal: Fully mitigate for wildlife losses from hydropower in the Columbia River basin

§ 11.2D: Mitigation plans and agreements.

- Have measurable objectives, e.g. specific number of habitat units.
- Where practical, mitigate losses in-place, in-kind.
- Protect or enhance natural ecosystems and species diversity over the long term.
- Address special wildlife losses in areas that formerly had salmon and steelhead runs that were eliminated by hydroelectric projects (for example, societal and tribal wildlife losses).

§ 11.3A: Identify measures based on losses.

§ 11.3C: Develop statements of habitat losses and gains due to hydropower operation.

§ 11.3G: Develop long term agreements for all wildlife mitigation.

§ 11.5: Monitor and evaluate wildlife efforts at non-federal projects (e.g., Hells Canyon Complex).

§ 11.5A: Mitigation considerations in dam licensing decisions. (e.g., FERC).

The goals and objectives of the Councils Program have been largely incorporated into the Multi-Year Implementation Plan (CBFWA-RFM 1997). The Columbia Basin Resident Fish Managers developed the MYIP to provide a scientifically based framework for implementation of

enhancement and mitigation measures within the context of the Council's Fish & Wildlife Program:

The multi-year implementation plan provides a framework for resident fish restoration efforts in the Columbia Basin -- that includes ecological and management objectives, and a schedule for key activities. The framework identifies the work that needs to be accomplished in the current year and activities planned for future years. Fish and wildlife agencies and tribes will use this information to develop detailed annual work plans that can be used to solicit new project proposals. This multi-year planning process will help ensure that all resident fish projects meet clear restoration objectives, are part of a comprehensive strategy, and are based on the best existing scientific knowledge. Columbia Basin resident fish comanagers, under the auspices of the Columbia Basin Fish & Wildlife Authority (CBFWA), are working with Northwest Power Planning Council (Council) staff to develop a multi-year implementation plan for resident fish.

The Shoshone-Paiute's umbrella plan for the DVIR portion of the Owyhee will be designed to integrate closely with the ongoing planning efforts including the MYIP and the regional framework. Documentation of a comprehensive and internally consistent resident fish & wildlife framework for the Owyhee Basin is a necessary and logical step in order to integrate with the overall Columbia Basin Multi-Species Framework that is currently under development.

c. Relationships to other projects

The following BPA-funded projects are ongoing during FY1999-2000 for resident fish mitigation and enhancement on the DVIR.

Project 9701100 "Enhance and Protect Habitat & Riparian Areas on the Duck Valley Indian Reservation" [NPPC measure 10.8C.5] Our habitat project is essential in locating, protecting, and monitoring natural springs on the Duck Valley Indian Reservation. We are also collecting water quality data along with stream survey of species of invertebrates and fish. These data will all be useful in completing our watershed assessment. Also are going to attempt to get data from Nevada Department of Wildlife to supplement the upper Owyhee River watershed assessment.

Project 9501500 "Lake Billy Shaw Wetlands Catch & Release Fishery O&M" [NPPC measure 10.8C; 10.8C4] A new BPA-funded dam was completed in 1998 on the DVIR and Lake Billy Shaw will begin filling in 1999 -- the development of its fisheries needs to be integrated within a comprehensive fish management plan. We will collect water quality data in Billy Shaw Reservoir and the influent canal. We also will collect basic fisheries information from the lake and canal. In addition, we will monitor domestic and test well for water quality (TMDL). We will plant trees and native vegetation along riparian areas around reservoir and feed canal and monitor for plant growth and riparian disturbance.

Project 8815600 "Stocking Fish in Lakes and Streams on the Duck Valley Indian Reservation" [NPPC measure 10.8C1; 10.8C3] Trout stocking in reservoirs and streams on the DVIR has been ongoing since 1988. The Shoshone-Paiute Tribe considers this program a high priority in order to help sustain our tribal members and mitigate for the losses of anadromous fish in the Owyhee River. In the past, the USFWS developed annual stocking plans and provided hatchery rainbow trout. However at present, it is essential to re-evaluate the fish stocking strategy to ensure that the genetic diversity of native salmonid species is not compromised and to incorporate production from the Tribal joint culture facility constructed at the Fort Hall Reservation (see below).

Project 9500600 “Shoshone-Bannock/Shoshone-Paiute Joint Culture Facility” [NPPC measure 10.8C3; 10.8C6] A BPA-funded fish culture facility is being developed to provide trout production to supplement fisheries on Duck Valley and Fort Hall reservations. Its operation should be coordinated with the comprehensive Owyhee Basin resident fish management plan -- including Lake Billy Shaw fishery development and conservation of genetic diversity of native trout populations.

The proposed umbrella project, proposed for FY2000, complements the ongoing work by providing a management plan and framework to integrate watershed enhancement projects with fish and wildlife assessment and fishery management projects. A clear need exists to formulate a artificial production and supplementation plan (aspects of Projects 8815600, 9501500, and 9500600) – within the framework of a comprehensive Owyhee Basin management plan – that provides fishery opportunities and is compatible with conservation and enhancement of native resident fish populations. Sub-projects proposed for FY2000 (eg., the fish stock assessment and wildlife inventory) will provide a scientific basis for developing the Owyhee Basin fish & wildlife management plan.

d. Project history (for ongoing projects)

New Project -- Not Applicable

“

e. Proposal objectives

The overall goal of the Shoshone-Paiute “umbrella project” is to coordinate a comprehensive Fish, Wildlife and Habitat Restoration Plan for the Duck Valley Indian Reservation -- including fish & wildlife management planning, fish stock assessment, and wildlife inventory of the Owyhee Basin, DVIR component.

The individual sub-proposals comprise the Objectives of the umbrella project:

1. Develop a Fish & Wildlife Management Plan for the Owyhee Basin, DVIR
2. Develop a Fish & Wildlife Conservation Law Enforcement Plan, DVIR
3. Assess Resident Fish Stocks Of The Owyhee Basin, DVIR
4. Enhance and Protect Habitat and Riparian Areas on DVIR
5. Implement Fishery Stocking Program Consistent with Native Fish Conservation
6. Inventory Wildlife Species & Populations Of The Owyhee Basin, DVIR
7. Evaluate the Feasibility for Anadromous Fish Reintroduction in the Owyhee

Specific, measurable objectives and outcomes for the individual projects will be presented in more detail in the sub-proposals. The umbrella project will generate progress reports and an annual report that summarizes the progress on the individual projects and clearly shows linkages among the implementation projects.

f. Methods

The proposed “umbrella project” will incorporate two related approaches to achieve an integrated fish & wildlife management plan and project implementation based on scientific principles.

- ◆ First, develop an internally consistent and comprehensive Shoshone-Paiute strategic plan for the restoration of fish, wildlife, and watershed resources on the Duck Valley Indian Reservation.
- ◆ Second, coordinate with state, regional, and federal planning processes (e.g., Idaho & Nevada fish management plans, NPPC Fish & Wildlife Program, Multi-Species Framework, ESA recovery plans, etc.) to develop a management framework that maximizes opportunities cooperative efforts and successful restoration of the Owyhee ecosystem.

A monitoring and evaluation (M&E) plan will be an integral part of the DVIR fish & wildlife framework and M&E will be incorporated into individual projects. Principles of adaptive management will be applied to make adjustments to the planning/implementation cycle and to help re-shape strategic plan in an iterative fashion (Figure 1).



Figure 1. Hierarchical strategic planning framework with a scientific foundation.

Past fish management strategies will be re-evaluated with respect to the Columbia Basin Multi-Species Framework and the scientific conceptual foundation proposed by the ISG (1996) and being documented by the Framework Ecological Working Group (1998). The following section summarizes the current management strategies and corresponding working hypotheses being utilized for Owyhee Basin fish and habitat restoration.

The primary resident fish species targeted for management activities in the Owyhee subbasin are the native bull trout and redband trout. Along with these fish species it is also the goal to protect and enhance the streams and rivers in the Owyhee subbasin. There are many free flowing streams that are in near pristine condition. These streams provide excellent habitat for native fish in the subbasin including redband trout and bull trout. Bull trout were known to inhabit this area and have been observed in early sampling in 1997. The Owyhee subbasin has two different strategies to manage the natural resources. The first strategy is based on the following hypothesis: opportunities exist for management of hatchery reared gamefish which optimize consumptive and

nonconsumptive use and do not affect native species. The success of this hypothesis is measured through angler surveys, CPUE, and size specific harvest of hatchery fish in the reservoirs. (1998 Annual Implementation Workplan CBFWA)

The second general strategy, which focuses on native species, is based on the following five hypotheses is: 1) operation of the FCRPS has significantly reduced the distribution, abundance, and population viability of native populations in subbasin tributaries; 2) native populations in subbasin tributaries can be protected and restored by habitat improvement measures; 3) effective and efficient implementation of habitat restoration measures for native fish populations in subbasin tributaries can be predicted from assessments of population distributions and status; 4) enforcement emphasis and public information will increase protection for native fish species; and, 5) extinction is preventable.

The success of this strategy is measured by: 1) detailed habitat protection and restoration plans for native fish species; 2) implementation of restoration plans; 3) valid estimates of native fish losses due to hydro power development; and, 4) identification of native stocks and their status (distribution, abundance, size composition, genetic characteristics, and habitat associations).

The projects related to the first strategy began in 1988 with the stocking of fish in two reservoirs on the Duck Valley Indian Reservation (Project #8815600). These fish are stocked annually for the consumptive use of Tribal members as well as for sport fishing. Also, two projects are in the planning stages. Construction of a fishery in Billy Shaw Reservoir on the Duck Valley Indian Reservation should begin in the spring of 1998 (Project #9501500). The second project (Project #9500600) is a joint culture facility with the Shoshone-Bannock Tribes is currently in the Council's three-step process for production facilities. This project will supply fish for the Shoshone-Paiute Tribes two existing reservoir projects as well as for the new Billy Shaw Reservoir.

The second set of strategies relates to the Habitat Enhancement Project for the Shoshone-Paiute Tribes (Project #9701100). This project began in 1997 and a preliminary assessment of the habitat on the Duck Valley Reservation has been completed and is currently being analyzed to determine what protective measures need to be addressed. The Owyhee River and its tributaries are the focus of this project. The major problem encountered thus far is the trampling of critical riparian areas and natural springs from domestic stock. Also, a population survey will be initiated in 1998 as well as preparing genetic samples to determine stocks of native fish on the Duck Valley Reservation.

The anticipated result of the umbrella project approach is achievement of measurable biological objectives specified in the sub-proposals in cost-effective manner. The major factor that would limit success of the ongoing fish and habitat restoration projects in the Owyhee Basin is the lack of a comprehensive management plan that is integrated with various regional planning processes. Furthermore, in the development of a holistic fish, wildlife & watershed restoration plan for the DVIR, the Shoshone-Paiute Tribes will be seeking opportunities in the future with cooperative and cost-share arrangements with private landowners and relevant local, state, and federal agencies.

g. Facilities and equipment

The Habitat, Parks, Fish and Game Department of the Shoshone-Paiute Tribes is located on the Duck Valley Reservation and is operated from an office building, near Owyhee Nevada. The building includes office space for the Director, biologists, and secretary. The offices are equipped with computers (including scanner, printer, etc.), a telephone system, inter-net capabilities, and a 2 way communication system with field units. The building also includes a 6,000 sq. ft. shop for storage and maintenance. We currently 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 program has a variety of fisheries & limnological sampling gear, tools for maintenance, and light construction equipment. The facility has a fenced yard with storage tanks for deisel fuel and gasoline.

h. Budget

The personnel category includes 66% of the Directors annual salary and 10% of the fishery biologist position (including fringe benefits). This proposal is designed as the “umbrella project” for BPA-funded fish & wildlife implementation projects on the Duck Valley Indian Reservation – therefore a major portion of the Director’s time is appropriate for administration of the comprehensive program.

The Travel category includes \$14,500 for travel expenses of the Director and staff needed for attending meetings and to facilitate regional coordination.

The Indirect Costs of \$15,820 are based on 26.6% of the personnel and travel subtotal.

The subcontractor category is for fishery consulting services needed for project development, statement of work preparation, the development of strategic planning documents, study design, and formulation of an overall monitoring and evaluation plan to enable adaptive management of the overall program. The fisheries consultant will also advise on regional coordination issues. The cost of these services for the umbrella project is estimated at \$48,000 per year.

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
Owyhee NV 89832

January 1996- Present

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

January 1990 - December 1996

Mental Health Director (Acting)
Owyhee Hospital
Shoshone-Paiute Tribes-Duck Valley Indian
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 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.

Steven C. Vigg, Fisheries Consultant

Education and Training

1968-70	A.A. in Biology, Palomar Jr. College, San Marcos, CA
1971-73	B.S. in Fisheries, Humboldt State Univ., Arcata, CA
1974-75	M.S. in Fisheries, Humboldt State Univ., Arcata, CA
1979-84	Graduate level Biology courses; University of Nevada, Reno, NV
1986	Ph.D. program coursework; University of Washington, Seattle, WA

Employment History

1998- Present	Independent Consultant for National Marine Fisheries Service (via PSMFC IPA contract)
1995-1998	S.P. Cramer & Associates, Senior Fisheries Consultant
1990-1995	Bonneville Power Administration, Fisheries Biologist (Mgmt)
1988-1990	ODFW, Supervisory Fish & Wildlife Biologist
1984-1988	U.S. Fish and Wildlife Service, Fisheries Biologist
1979-1984	Desert Research Institute, Staff Biologist
1975-1978	W.F. Sigler & Associates Inc., Aquatic Ecologist

Professional Experience

Steve Vigg has worked in the field of fisheries management and research for over 24 years. Steve is currently working under contract to NMFS for evaluation of Mitchell Act Hatcheries in relation to performance standards. As a senior consultant for S.P. Cramer & Associates, Steve has worked on a variety of ESA-related projects, including harvest management and anadromous species status reviews. He also addressed a broad variety of fisheries resource management plans for resident and anadromous fish in the Columbia Basin. As a fisheries biologist for Bonneville Power Administration, Steve worked on the Enhanced Fishery Law Enforcement Program and ESA issues pertaining to Columbia River stocks. At Oregon Department of Fish and Wildlife, Steve worked as the Project Leader for the Predator-Prey and Predator Control studies. At the U.S. Fish & Wildlife Service, Steve conducted research on the effects of fish predation on out-migrating juvenile salmonids in the John Day Reservoir. At the Desert Research Institute, Steve did research on fish ecology and the limnology of large Great Basin lakes and reservoirs.

Publications

Steve has authored over 75 research, management, and planning documents regarding fishery issues and has delivered presentations at numerous scientific symposiums. Steve received American Fisheries Society citation for most significant paper of the year, TAFS 1991.

Section 10. Information/technology transfer

Transfer of technology and information derived from the Shoshone-Paiute “umbrella” project will be accomplished via several communications media:

- (1) quarterly and annual reports to BPA,
- (2) coordination meetings with regional resident fish & wildlife forums,
- (3) development of annual work plans in conjunction with other Shoshone-Paiute Tribes natural resource management departments and the Tribal Council,
- (4) update of the five-year Shoshone-Paiute fish & wildlife restoration strategic plan on an annual cycle,
- (5) monitoring and evaluation report by an independent “third-party” consultant,
- (6) fishery management regulation notices distributed to tribal and non-tribal fishers,
- (7) occasional news releases to the newspaper/radio/television media as needed to inform the general public Owyhee Basin fish & wildlife issues,
- (8) oral presentations at reviews called for by NPPC and CBFWA, and
- (9) periodic presentations at fisheries conferences by the Director, project leader and/or fisheries consultant.

Congratulations!