
PART I - ADMINISTRATIVE

Section 1. General administrative information

Title of project NE Oregon Hatchery Planning & Coordination - WDFW	
BPA project number	20022
Contract renewal date (mm/yyyy)	
Multiple actions? (indicate Yes or No)	
Business name of agency, institution or organization requesting funding Washington Department of Fish and Wildlife	
Business acronym (if appropriate)	WDFW
Proposal contact person or principal investigator:	
Name	Glen Mendel
Mailing address	529 W. Main St.
City, ST Zip	Dayton, WA 99328
Phone	(509) 382-1005
Fax	(509) 328-2427
Email address	mendegwm@dfw.wa.gov
NPPC Program Measure Number(s) which this project addresses 7.4, 7.4L.1, 7.4B.1., 7.4D, 7.4F, 7.4O	
FWS/NMFS Biological Opinion Number(s) which this project addresses Consultation 383 (sec B 3&4) 1995-1998 Hatchery Operations in the Columbia R. Basin	
Other planning document references NMFS Snake River Recovery Plan (1995) Wy Kan Ush Me Wa Kish Wit (vol 2 - sub-basin plans for Walla Walla and Grande Ronde rivers), Sub- basin plans for the Walla Walla and Grande Ronde basins and associated Master Hatchery Production Plans, Corps of Engineers Walla Walla R. Reconnaissance Report 1997.	
Short description As co-manager of fishery resources in these basins, assist with development and implementation of the Walla Walla and Grande Ronde Master Plans. Participate in NEOH planning/coordination meetings and development of hatchery supplementation plans, facilities, and monitoring and evaluation.	
Target species	

steelhead, spring chinook, fall chinook, coho

Section 2. Sorting and evaluation

Subbasin

Walla Walla and Grande Ronde basins

Evaluation Process Sort

CBFWA caucus		CBFWA eval. process		ISRP project type
X one or more caucus		If your project fits either of these processes, X one or both		X one or more categories
X	Anadromous fish	X	Multi-year (milestone-based evaluation)	Watershed councils/model watersheds
	Resident Fish		Watershed project eval.	Information dissemination
	Wildlife			Operation & maintenance
				New construction
				Research & monitoring
				X Implementation & mgmt
				Wildlife habitat acquisitions

Section 3. Relationships to other Bonneville projects

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

Project #	Project title/description

Other dependent or critically-related projects

Project #	Project title/description	Nature of relationship
8805301	Northeast Oregon Hatchery (NEOH) Master Plan	NPTs participation in planning and implementation in the Grande Ronde and Imnaha
8805302	Plan, Site, Design & Construct NEOH Hatchery - Umatilla/ Walla Walla Component	CTUIR's participation in planning and implementation of NEOH in the Umatilla and Walla Walla basins
8805305	NE Oregon Hatchery Master Plan &	ODFW's participation in planning and

	Facilities - ODFW	implementation in the Grande Ronde, Walla Walla and Imnaha
8802200	Umatilla and Walla Walla Basins Trap and Haul Program	This project is being planned to provide adults for the Walla Walla NEOH supplementation program
8805302	NE Oregon Hatchery - Grande Ronde Satellite Facilities	CTUIR's participation in planning and implementing the NEOH program on the upper Grande Ronde River and Catherine Creek
9010	Assess fish habitat and salmonids in the Walla Walla ...	This project will collect genetics information and other salmonid data that may influence artificial production planning and implementation.
9000501	Umatilla and Walla Walla Basin Natural Production Monitoring and Evaluation Project	The project will collect information that may influence artificial production planning and implementation.
9601200	Adult Fish Passage Improvement - Walla Walla R.	The project is necessary for further planning and implementation of artificial production.
9601100	Screens and Traps on the Walla Walla and Touchet	The project is necessary for further planning and implementation of artificial production.
9604601	Walla Walla Basin fish habitat enhancement	The project will collect watershed assessment information of value in planning.

Section 4. Objectives, tasks and schedules

Past accomplishments

Year	Accomplishment	Met biological objectives?
	New Project for WDFW	

Objectives and tasks

Obj 1,2,3	Objective	Task a,b,c	Task
1	Participate in NEOH planning, coordination, future implementation and monitoring/evaluation for NEOH production programs.	a	Participate in, and coordinate with co-managers for, completing the hatchery Master Plan and facilities designs for the Grande Ronde sub-basin
		b	Participate in, and coordinate with co-managers for, completing the hatchery

Obj 1,2,3	Objective	Task a,b,c	Task
			Master Plan and facilities designs for the Walla Walla sub-basin
		c	Assist with the development of monitoring and evaluation plans integrating ongoing LSRCP/WDFW activities and planned NEOH evaluation within these basins.
		d	Coordinate a captive broodstock project for Tucannon spring chinook with NEOH program.
		e	Coordinate existing LSRCP/WDFW production, incubation, rearing and release in the Grande Ronde and Walla Walla basins with NEOH planning and implementation (eg. AOP & NEOH meetings)
		f	Coordinate and implement operations and maintenance plans, as appropriate
		g	Coordinate and implement monitoring and evaluation plans, as necessary
		h	Prepare and provide quarterly reports to BPA/CBFWA and others summarizing activities for the quarter.
		i	Prepare and provide annual project report of activities and results. Distribute to BPA/CBFWA and others.
		j	Present reports on project planning or implementation activities at workshops and to the public and others in other forums.

Objective schedules and costs

Obj #	Start date mm/yyyy	End date mm/yyyy	Measureable biological objective(s)	Milestone	FY2000 Cost %
1	10/1999	10/2015		X	100.0
				Total	100.0

Schedule constraints The NPPC 3-step review process, completion of ESA requirements.
Completion date Supplementation under NEOH is expected for 3-5 generations (15-25 yrs).

Section 5. Budget

FY99 project budget (BPA obligated):	\$ NA - new project
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FY2000 budget by line item

Item	Note	% of total	FY2000 (\$)
Personnel	biologist @ 2 mos (0.17 FTE)		7,973
Fringe benefits	at 28.5%		2,272
Supplies, materials, non-expendable property	misc.		200
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:		0
Travel			320
Indirect costs	22.5%		2,377
Subcontractor			0
Other			0
TOTAL BPA REQUESTED BUDGET			12,942

Cost sharing

Organization	Item or service provided	% total project cost (incl. BPA)	Amount (\$)
WDFW	office space and utilities, etc.		1,100
Total project cost (including BPA portion)			14,042

Outyear costs

	FY2001	FY02	FY03	FY04

Total budget	14,744	15,481	16,255	17,068
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Section 6. References

Watershed?	Reference
	Ashe, B.L., et al. (In prep.) Grande Ronde River Master Plan for spring and fall chinook, coho and sockeye salmon. BPA, Portland, OR.
	Bryson, D. 1990. Northeast Oregon Salmon and Steelhead Draft Master Plan, Grande Ronde River. NPT, Lapwai, ID.
	Bryson, D. 1993. Northeast Oregon Hatchery Project, Grande Ronde River Master Plan Final Report. NPT, Lapwai, ID.
X	Confederated Tribes of the Umatilla Indian Reservation (CTUIR). 1989. Walla Walla Subbasin Salmon and Steelhead Plan. Prepared for the Northwest Power Planning Council. Portland, Oregon.
	Confederated Tribes of the Umatilla Indian Reservation (CTUIR). 1993. & 1998. Walla Walla Master Plan (draft). Prepared for the Northwest Power Planning Council. Portland, Oregon.
	Corps of Engineers (COE), 1975. Special Report, Lower Snake River Fish and Wildlife Compensation Plan. Walla Walla, WA
X	Corps of Engineers (COE), 1997. Walla Walla River Watershed, Oregon and Washington Reconnaissance Report. U. S. Army Corps of Engineers, Walla Walla District. Walla Walla, Washington.
	CRITFC. 1995. Wy-Kan-Ush-Mi Wa-Kish-Wit. Spirit of the Salmon - Tribal Recovery Plan. Volume I and II.
	Cramer, S.P., and K. Witty. 1993. Feasibility for Reintroducing Sockeye and Coho Salmon in the Grande Ronde River and Coho and Chum in the Walla Walla. BPA, Portland, OR.
	Irving J.S. and T.C. Bjornn, 1981. Status of Snake River Fall chinook Salmon in Relation to the Endangered Species Act. USFWS, Moscow, ID
	Independent Science Panel (ISP). 1996. Responses of the Independent Scientific Panel to Questions about the Interpretation of Genetic Data for Spring Chinook Salmon in the Grande Ronde Basin, Sept. 1996.
	Montgomery Watson. 1992. Draft Siting Report for Northeast Oregon Hatchery Project. Montgomery Watson, Bellevue, WA
	Montgomery Watson. 1992. Draft Conceptual Design Report for Northeast Oregon Hatchery Project. Montgomery Watson, Bellevue, WA
	Montgomery Watson. 1995. Northeast Washington Hatchery Project Conceptual Design Final Report. BPA, Portland, OR
	Montgomery Watson. 1995. Northeast Washington Hatchery Project Final Siting Report. BPA, Portland, OR
	Neeley, D., K. Witty, and S.P. Cramer. 1994 Genetic Risk Assessment of the Grande Ronde Master Plan. NPT, Lapwai, ID
	Northwest Power Planning Council (NPPC). 1995. 1994 Columbia River Basin Fish and Wildlife Program (as amended in 1995). Portland, Oregon.

X	Oregon Depart of Fish and Wildlife. 1990. Grande Ronde Subbasin Salmon and Steelhead Production Plan. Prepared for the Northwest Power Planning Council, Portland, OR
	Washington State Natural Resources Cabinet. 1998. Extinction is not an option. A statewide strategy to recover salmon. Working draft.
	Washington State House Bill 2496.
	Washington State House Bill 2415.

PART II - NARRATIVE

Section 7. Abstract

This project is meant to enable the Washington Department of Fish and Wildlife (WDFW) to participate in planning, implementation and monitoring and evaluations within the Grande Ronde and Walla Walla basins as part of the Northeast Oregon Hatchery program (NEOH). WDFW has co-management responsibilities for approximately 60 km of the lower Grande Ronde River and several of its tributaries within Washington, as well as management responsibilities in the majority of the Walla Walla basin (73%) that lies within Washington. Although NEOH planning is currently on-going among the Nez Perce Tribe (NPT), Oregon Department of Fish and Wildlife (ODFW) and the Confederated Tribes of the Umatilla Indian Reservation (CTUIR) within the Walla Walla and Grande Ronde basins, the WDFW has had little opportunity to participate in these plans that will likely affect salmonid and other fishery resources within these basins in Washington State.

The NEOH program was established to identify and develop artificial propagation facilities to enhance anadromous salmonids in select basins within northeast Oregon and southeast Washington as authorized by the Northwest Power Planning Council's (NPPC) Fish and Wildlife Program (FWP), section 7.4. Originally this program focused on contributing to the NPPC's doubling goal for salmon. Recent listings of salmon and steelhead under the Endangered Species Act (ESA) have caused a change of focus to protection, recovery and enhancement of these species. The goal is to increase adult salmonid returns and natural spawning. Some existing populations will be enhanced and other species or populations will be reintroduced where they are currently extirpated. This goal is to be achieved by increasing the number of juvenile emigrants, while avoiding unintended changes to populations structure, genetics, or fitness of naturally existing populations. Without intervention, some existing populations are expected to continue to decrease and other populations can not be reintroduced into these watersheds. The NEOH Program implementation is expected to result in increased numbers of wild adults for some populations and thereby reduce risks to those populations and hasten recovery and delisting. Supplementation under this program is planned for a minimum of five salmon generations (25 years).

Participation in this program by WDFW should improve protection of fishery resources and interests within Washington, improve coordination, and expedite co-manager approvals for NEOH implementation.

Section 8. Project description

a. Technical and/or scientific background

Walla Walla: Historically, summer steelhead and spring chinook salmon runs were once abundant in the Walla Walla basin. Presently, spring chinook have been extirpated and summer steelhead runs are depressed (WDFW 1993). Summer steelhead in the Walla Walla basin are proposed for listing under the ESA. Losses have generally been attributed to development of hydroelectric dams, forestry, agriculture, urban development and irrigation.

In the 1980's, the Confederated Tribes of the Umatilla Indian Reservation (CTUIR) and the Oregon Department of Fish and Wildlife (ODFW) began implementing comprehensive plans to supplement steelhead and re-establish salmon runs in the Walla Walla and Umatilla river basins to partially mitigate for these losses. Artificial production facilities would be necessary to achieve return goals. The NPPC 1987 Columbia Fish and Wildlife Program (FWP) authorized the planning, design, construction, operation and evaluation of artificial production facilities to raise chinook salmon and summer steelhead for enhancement and restoration of fish runs in the Walla Walla, Umatilla, and other northeast Oregon streams. This measure is the Northeast Oregon Hatchery Program (NEOH). Parts of the Umatilla Hatchery program have been included under the NEOH program. The Walla Walla Sub-basin Plan (1989) identified the need for production of spring chinook salmon for reintroduction and summer steelhead for supplementation. Artificial propagation facilities are being planned, designed and constructed under project 8805302 with the CTUIR as the sponsor. Draft Master Plans have been written by the CTUIR (1993, 1998) for reintroduction of spring chinook and supplementation of summer steelhead.

Grande Ronde: Spring, summer and fall chinook populations in the Grande Ronde basin have declined to low levels in the past three or four decades. All salmon populations within the Snake River Basin were listed under the Endangered Species Act (ESA) in 1992. Sockeye and coho salmon are presently classified as extinct in the Grande Ronde basin.

Spring chinook populations have declined in the Grande Ronde similar to other populations in the Snake River basin. Populations declines are primarily attributed to reduced production that has resulted from juvenile and adult mortalities that occur at Snake and Columbia river dams and reservoirs. Estimated losses of 48% were attributed to Snake River dams (COE 1975) and in 1976 congress authorized the Lower Snake River Compensation Plan (LSRCP) to mitigate for losses to salmon, steelhead and other resources in the Snake River basin. This mitigation did not use endemic stocks or necessarily conform to ESA requirements. Proposed facilities would increase incubation and rearing space and acclimation facilities in the Grande Ronde basin.

Fall chinook have declined from an average of 72,000 fish fifty years ago (Irving and Bjornn 1981) to as low as 78 wild adults at Lower Granite Dam in 1990 (LaVoy 1995). Fall chinook were listed under the ESA in 1992. The LSRCP program mitigates for lost production at Lyons Ferry Hatchery on the Snake River. Hatchery fall chinook have not been released in the Grande Ronde River to date because of a lack of eggs for upriver enhancement. Fall chinook redds have been documented in the Grande Ronde River for the past several years.

Coho and sockeye salmon were historically abundant in the Grande Ronde Basin. Coho were declared extinct in the Snake River Basin in 1986. Sockeye have been extirpated from the basin since the early 1900s. Sockeye and coho were not included in the LSRCP program and the loss of these populations has not been mitigated.

This project provides for WDFW involvement in the planning and development of artificial production facilities to protect, recover, enhance or reintroduce anadromous salmonid species in the Grande Ronde basin as authorized by the FWP (7.4). This production is to be “in place” and “in kind” mitigation. Recovery attempts using non-indigenous stocks have occurred previously in the Grande Ronde. Conclusions of the Grande Ronde Panel convened by the US v Oregon parties found this approach to be inappropriate and the Panel recommended the initiation of endemic broods (Independent Scientific Panel 1996). Use of endemic stocks for enhancement of salmonid populations is supported by the Snake River Recovery Team (1994) and the FWP. Monitoring and evaluation of project activities will provide information to allow “Adaptive Management” decisions to be made to recover listed species and move toward delisting.

Several reports have been generated for planning purposes in the Grande Ronde basin:

1. Northeast Oregon salmon and steelhead draft Master Plan, Grande Ronde River (Bryson 1990).
2. Feasibility of reintroducing sockeye and coho salmon in the Grande Ronde River and coho and chum into the Walla Walla River (Cramer 1993).
3. Draft siting report of the NEOH Project (Montgomery Watson, Feb., 1992).
4. Draft conceptual design report for NEOH (Montgomery Watson Oct. 1992)
5. NEOH Project Final Siting Report (Montgomery Watson 1995).
6. NEOH project - Grande Ronde River Master Plan Final Report (Bryson, Jan. 1993).
7. NEOH Project Conceptual Design Final Report (Montgomery Watson 1995).
8. Genetic Risk Assessment of the Grande Ronde River Master Plan (Neeley et al., Dec. 1994).
9. US v Oregon Dispute Resolution, Responses of the Independent Scientific Panel to Questions about the interpretation of genetic data for spring chinook salmon in the Grande Ronde Basin (ISRP, Sep. 1996).

Recent ESA listing of bull trout, and a proposed listing of steelhead in the Walla Walla basin, as well as listings of four salmonids in the Grande Ronde basin, have changed the focus of the NEOH program to protect, recover and enhance these native populations and to reintroduce spring chinook salmon in the Walla Walla and sockeye and coho in the Grande Ronde without adversely affecting the native salmonids within these basins. Planning and development of the artificial production Master Plans has been underway since the 1980s, and it still continues, although with new considerations. The WDFW has had limited involvement in past planning efforts and has raised that issue and several concerns for fishery resources within these two basins in Washington to ODFW, the NPT and the CTUIR. The Master Plans are to be developed and implemented by the fishery co-managers. Therefore, WDFW must be involved to protect Washington State’s interests and resources and reduce any potential conflict with an existing WDFW Lower Snake River Compensation (LSRCP) mitigation program for steelhead and salmon within the basins. Participation by all co-managers should improve coordination, cooperation, resource protection and help expedite the planning process and program implementation.

b. Rationale and significance to Regional Programs

The NEOH Master Plan project relates to the following FWP (NPPC 1994) objectives and measures. The 1994 FWP Section 7.4 addresses new production initiatives and 7.4L identifies Northeast Oregon Production facilities. Section 7.4L 1 authorizes the BPA to fund planning, design, construction, operation, maintenance and evaluation of artificial production facilities in the Walla Walla, Grande Ronde and elsewhere. Section 7.4B discusses development of Master Plans for new artificial production projects. The Grande Ronde efforts also include captive brood stocks (Section 7.4D), portable facilities (Section 7.4F) and small scale production projects (7.4O). The Walla Walla efforts integrate production facilities for the Umatilla and Walla Walla rivers.

The National Marine Fisheries Service (NMFS) draft recovery plan (1995) indicates that management plans should be developed and implemented for Snake River spring/summer chinook salmon conservation hatchery programs. These plans should include genetic management strategies and production-scale experiments at hatcheries using acclimation ponds and volitional releases to test individual release strategies and evaluate smolt condition to improve smolt quality.

The tribal recovery plan (Wy Kan Ush Me Wa Kish Wit) states that supplementation projects such as the Grande Ronde project should be implemented. It also states that additional programs should be established for each sub-basin to monitor adult escapement and resulting smolt production, and to use adult escapements to evaluate the ability of managers to meet goals set by the Columbia River Management Plan.

WDFW should be involved as a co-manager to plan, coordinate and participate in the development of artificial production facilities in the Grande Ronde and Walla Walla basins to ensure adequate protection and enhancement of fishery resources within the Washington portion of these basins. The ODFW, NPT, CTUIR and WDFW are co-managers, and all but WDFW have been funded to participate in this process. This project would provide funds to enable WDFW to participate in the NEOH process.

c. Relationships to other projects

Numerous other projects exist in these two basins. Many of those projects are, or have been, funded by BPA. The Lower Snake River Compensation Plan (LSRCP) also funds several hatchery production or evaluation projects in these basins.

The projects by the NPT (8805301), CTUIR (8805302), and ODFW (8805305) are funded by BPA for NEOH planning, coordination and implementation. Additionally, project (8802200) funds CTUIR for trapping and hauling fish in the Umatilla and Walla Walla basins for NEOH production facilities. The CTUIR is funded under project 8805302 for satellite NEOH facilities in the Grande Ronde basin.

Additional projects funded by BPA or the LSRCP for each basin are listed below:

Artificial Production projects - Grande Ronde River

5520600 NPT Listed Stock Gamete Preservation.

5520700 NPT Captive Broodstock Artificial Propagation: Cooperate with co-managers, captive brood monitoring and evaluation.

9604400 (ODFW)Grande Ronde Basin Spring Chinook Captive Broodstock

9800702 NPT Grande Ronde Supplementation O&M/M&E. Comanager input for the Lostine R.

Monitoring and Evaluation projects - Grande Ronde River

8712700 NPT Smolt Monitoring: Smolt monitoring on the Imnaha

9202604 ODFW Spring Chinook Salmon Early Life History

5519100 USFS Meadow Creek Instream Structure and Riparian Evaluation

Habitat Improvement Projects - Grande Ronde River

8402500 ODFW Grande Ronde Habitat Enhancement:

9607700 USFS Meadow Creek Restoration

9403900 NPT Wallowa River Basin Project Planning.

9702500 NPT Wallowa County/NPT Salmon Habitat Recovery

5507000 CTUIR Grande Ronde Subbasin Watershed Restoration.(9608300)

9402700 GRMWP Grande Ronde Model Watershed Habitat Projects

9202601 GRMWP Grande Ronde Model Watershed Administration/Implementation/Research.

Miscellaneous Projects - Grande Ronde River

8810804 Streamnet: Provide information for use in the database.

9405400 Bull Trout Life History.

9600800 PATH. Provide data for life cycle model.

LSRCP Projects - Grande Ronde River

ODFW, USFWS, Lookingglass Hatchery production for Imnaha summer chinook

ODFW, USFWS, NPT: Captive Broodstock Program.

ODFW, NPT, CTUIR: Monitoring and eval. Work on the upper Grande Ronde, Imnaha, Lostine rivers and Catherine Creek

WDFW, USFWS, Lyons Ferry Hatchery Production Program for steelhead and fall chinook.

WDFW, USFWS, Lyons Ferry Hatchery Evaluation Program.

Walla Walla Basin

9010 WDFW Assess Fish Habitat and Salmonids in the Walla Walla Basin...

9604601 CTUIR Walla Walla Basin Fish Habitat Enhancement

9000501 CTUIR Natural Production Monitoring and Evaluation

9601200 CTUIR Adult Fish Passage Improvement

9601100 CTUIR Screens and Traps on the Walla Walla and Touchet

LSRCP, WDFW, USFWS, Lyons Ferry Hatchery Production of steelhead.

LSRCP, WDFW, USFWS, Lyons Ferry Hatchery Evaluation of the steelhead program

Additionally, the State of Washington (HB 2496, HB 2514), with matching federal funds, is actively involved in watershed restoration and salmon recovery efforts in these two basins. A State-wide salmon recovery plan is being prepared and implemented (Washington Natural Resources Cabinet 1998).

The first three projects listed under the Walla Walla Basin will provide information that is critical for planning to implement the NEOH program in the Walla Walla basin. All projects listed above will have to be coordinated and integrated to prevent conflicts and to recover salmon and steelhead and protect wild salmonid resources in these basins.

d. Project history (for ongoing projects)

The NPPC authorized the planning, design and implementation of the NEOH artificial propagation program in 1987. Planning and implementation was postponed in 1993 because of critical management issues that arose during listing of species under the ESA. The WDFW has not been an active participant in this process in the past and the proposed project is new.

e. Proposal objectives

The proposal objective is to enable WDFW to finally be able to participate in NEOH planning, coordination, future implementation and monitoring and evaluation for NEOH production programs. WDFW participation should ensure that fishery resources within Washington are protected and not compromised by NEOH programs, and that adequate planning occurs for all portions of these watersheds. WDFW participation and coordination during Master Planning should help reduce potential delays for finalizing plans and securing approval from all co-managers for implementation of the NEOH program in these two basins.

f. Methods

The following tasks are associated with completion of this project.

Task 1a. Participate in, and coordinate with co-managers for, completing the hatchery Master Plan and facilities designs for the Grande Ronde sub-basin.

Task 1b. Participate in, and coordinate with co-managers for, completing the hatchery Master Plan and facilities designs for the Walla Walla sub-basin

Task 1c. Assist with the development of monitoring and evaluation plans integrating ongoing LSRCP/WDFW activities and planned NEOH evaluation within the basins.

Task 1d. Coordinate a captive broodstock project for Tucannon spring chinook with NEOH program.

Task 1e. Coordinate existing LSRCP/WDFW production, incubation, rearing and release in the Grande Ronde and Walla Walla basins with NEOH planning and implementation (eg. AOP & NEOH meetings)

Task 1f. Coordinate and implement operations and maintenance plans, as appropriate.

Task 1g. Coordinate and implement monitoring and evaluation plans, as necessary.

Task 1h. Prepare and provide quarterly reports to BPA/CBFWA and others summarizing activities for the quarter

Task 1i. Prepare and provide annual project report of activities and results. Distribute to

BPA/CBFWA and others

Task 1j. Present reports on project activities and findings at Annual BPA/CBFWA Project Review and other forums

g. Facilities and equipment

The WDFW will provide office space, utilities and a vehicle for participation in this project. No facilities or equipment are expected to be needed from this project.

h. Budget

The budget is primarily for personnel salary to enable WDFW to participate in NEOH planning and coordination within these two basins. This will include attendance at NEOH planning meetings, review or contribution to preparation of documents, and coordination with policy level personnel. There are too many fish management issues and activities in southeast Washington for WDFW to participate in NEOH without the requested financial assistance from BPA.

Section 9. Key personnel

GLEN W. MENDEL, (0.25 FTE)

District Fish Manager for SE Washington

Washington Department of Fish and Wildlife, Fish Management - 529 W. Main St., Dayton, WA 99328 - (509) 382-1005, FAX (509) 382-2427.

Education: - Supplemental Aquatic biology courses (1983), University of Idaho

- M.S. degree -- Wildlife Resources (1979), University of Idaho.

- B.S. degree -- Wildlife/fisheries (1975), - B.S. degree -- Biology (1973) Univ. of Idaho.

Employment History:

Fish Biologist and Manager for the Washington Department of Fish and Wildlife (WDFW) - (half time management duties April 1997-March 1998, full time since April 1998). Assistant project leader for evaluation of Lyons Ferry Hatchery program for spring and fall chinook salmon and steelhead (Mar. 1994-April 1998).

Fishery Biologist 3 for the Washington Department of Fisheries (5/1991 to 3/1994). Field supervisor for three projects: Monitoring and evaluation of Lyon's Ferry spring and fall chinook salmon hatchery programs (as part of the Lower Snake River Compensation Plan - LSRCP), and conducting adult fall chinook salmon radio telemetry research to evaluate upstream migration and spawning in the Snake River. Planned, directed and supervised these projects with 3 permanent staff, and up to 10 seasonal support staff.

Habitat Biologist 3 for the Washington Department of Wildlife (12/1988 to 5/1991). Main duties included reviewing and responding to environmental permits to protect fish and wildlife and their habitats in 3 SW Washington counties.

Fish Biologist 2 for the Washington Department of Wildlife (7/1984 to 12/1988) for evaluation of Lyons Ferry Hatchery steelhead and resident trout program .

Wildlife Biologist 2 for the Washington Department of Game (5/1983 to 7/1984). Biologist in charge of the Instream Habitat Improvement Study for streams in SE WA.

Biologist - Fisheries (GS/7) for the US Army Corps of Engineers (Jan-Sep. 1982, Apr. - Jun. 1981). Field supervisor for radio telemetry of chinook salmon at Snake R. dams.

Wildlife Biologist 2 for the Washington Department of Game (June - Dec. 1981, Jan. - Apr. 1981). Senior biologist on a study of anadromous fisheries enhancement potential in SE WA. Evaluated salmonid habitat and predicted salmonid biomass in streams by using the Wyoming HQI model. Estimated fish populations from electrofishing samples at 46 sites in 9 streams. Assisted with data collection for the Instream Flow Incremental Methodology.

Wildlife Biologist (GS/7) for the USDA Soil Conservation Service (May - Dec. 1979).

Publications: several publications in journals and symposium proceedings, and many agency reports regarding salmonid populations and their habitats .

Section 10. Information/technology transfer

Technical and planning information will be distributed through quarterly and annual progress reports to BPA, Master Planning documents, and workshops. Project cooperators and co-managers will regularly exchange information and discuss project adaptations. Additionally, WDFW will inform the public and other groups in these basins of proposed or on-going activities.