REPORT

ON

PACIFIC COASTAL SALMON RECOVERY FUND

FY2000 and FY2001 PROGRAMS (through December 31, 2001)

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INTRODUCTION

The Pacific Coastal Salmon Recovery Fund (PCSRF) was established in FY2000 to provide grants to the States and Tribes to assist state, local and tribal salmon recovery efforts. The PCSRF was requested by the Governors of the States of Washington, Oregon, California and Alaska in response to Endangered Species Act (ESA) listings of west coast salmon and steelhead populations. The PCSRF supplements existing state, tribal and federal programs to foster development of federal-state-tribal-local partnerships in salmon recovery and conservation; promotes efficiencies and effectiveness in the recovery effort through enhanced sharing and pooling of capabilities, expertise and information; and, contributes to the restoration of healthy populations of naturally spawning wild salmon populations and the habitats upon which they depend across a wide range of environmental conditions to provide harvestable surpluses to support treaty and non-treaty fishing opportunities consistent with existing law.

This report describes the distribution and use of the PCSRF for programs, projects and activities funded by the States and Tribes through December 31, 2001 accounting for most, but not all, of the projects and activities funded with FY2000 and FY2001 PCSRF funds. Due to sometimes lengthy time frames in getting PCSRF funds committed to specific projects, this report accounts for about 2/3 of the FY2000 and FY2001 PCSRF funding appropriated. The remainder will be accounted for in future reports. The initial delay in awarding PCSRF funds is due to the timing of federal grants. Grant funds are awarded to the States and Tribes in the middle to latter parts of each fiscal year due to lack of funds early in fiscal years, and lengthy grants application and issuance processes. This is followed by State and tribal processes and cycles for selecting priority projects and disbursing the funding. Thus, much of the PCSRF funds are committed to projects or activities subsequent to the federal fiscal year of obligation, and project completion can be several years after that because of construction windows and the seasonal nature of salmonid work.

Direct benefits to salmonids have been noted in a few of the habitat restoration projects such as salmon using newly opened habitat. However, for most habitat projects, because of multiyear salmon life cycles, it will be several years after the projects are completed before benefits to salmon can be documented. The declines in wild salmon populations have occurred over several decades and it will take many years to restore productive habitat necessary to recover salmon and steelhead.

The PCSRF projects and activities reported by the States and Tribes through December 2001 are collated together in this report under five major program areas:

1) **Salmon Habitat Restoration** - this includes "on-the-ground" habitat projects that protect, preserve, restore and enhance salmon habitat and watershed functions, as well as property acquisitions for conserving salmon habitat.

2) **Salmon Planning and Assessments** - this includes recovery planning and participation in technical recovery teams; watershed assessments including mapping/inventory for plans; sub-basin planning; Watershed Councils and support for them; and, organizational infrastructure and staffing for local conservation groups and tribal entities.

3) **Salmon Enhancement** - this includes supplementation, artificial propagation, and salmon fishery enhancements.

4) **Salmon Research and Monitoring** - this includes investigations, studies, and validation monitoring.

5) **Outreach and Education** - this includes workshops; forums; preparation of educational materials; training; and, citizen participation.

Specific project descriptions and funding for each of about 1,400 projects funded in FY2000 and FY2001 are not included herein because it would add over a hundred pages to this report. Rather, the projects are summarized together under one of the above program categories and funding aggregated. Projects lists providing descriptions, locations and funding amounts are available in spreadsheet format from NOAA Fisheries.

PCSRF FUNDING TO STATES AND TRIBES

In FY2000, Congress appropriated \$58M for the PCSRF to be used for 1) salmon habitat restoration; 2) salmon stock enhancement; 3) salmon research; and, 4) implementation of the Pacific Salmon Treaty Agreement and related agreements [Section 623(d)(3) of P.L.106-113]. The \$58M PCSRF appropriation was distributed \$50M to the States, \$6M to Pacific Coastal Tribes, and \$2M for Columbia River Tribes in accordance with P.L.106-113. The Conference Report (H. Rept.106-479) allocated the \$50M by State (see Table 1). P.L.106-113 also mandated that the PCSRF funds to States would be subject to a 25 percent non-federal match, and that administrative costs for States would be limited to 3 percent.

The FY2001 Appropriations Act (Public Law 106-553) provided authorization for the PCSRF for fiscal years 2000 to 2003. PCSRF funds to the States are to be used for "salmon habitat restoration, salmon stock enhancement, and salmon research including the construction of salmon research and related facilities." PCSRF funds to the Tribes are to be used for "salmon habitat restoration, salmon stock enhancement, salmon research, and supplementation activities."

The FY2001 appropriation provided \$90M for the PCSRF prior to a government-wide recission of 0.22 percent. This included \$54M that was distributed in the conference report with \$18M for Washington, \$10M for Alaska, \$9M for Oregon, \$9M for California, \$6M for Pacific Coastal Tribes, and \$2M for Columbia River Tribes. An additional \$36M provided for the PCSRF was

distributed in the same proportion as the FY2000 PCSRF funding, resulting in the total FY2001 distribution shown in Table 1.

The FY2002 appropriation of \$110M was distributed as shown in Table 1; however, this report does not include the distribution of the FY2002 funding to programs and projects as the NOAA grant process for obligation of the PCSRF had not begun for most of the States and Tribes at the time of this report.

	FY2000 (in millions)	FY2001 (in millions)	FY2002 (in millions)
Washington	\$18.0	\$30.2	\$34.0
Alaska	\$14.0	\$19.5	\$27.0
California	\$ 9.0	\$15.1	\$17.0
Oregon	\$ 9.0	\$15.1	\$17.0
Pacific Coastal Tribes	\$ 6.0	\$ 7.4	\$11.0
Columbia River Tribes	\$ 2.0	\$ 2.5	\$ 4.0
TOTAL	\$58.0	\$89.8	\$110.0

Table 1. Distribution of the PCSRF funds as set by Congress in appropriation conference reports.

Memoranda of Understanding (MOUs) with States and Tribal Commissions

The FY2000 Appropriations Conference Report (H. Rept.106-479) encouraged development of Memoranda of Understanding (MOUs) between NOAA Fisheries and States/Tribes on distribution of funds to qualifying projects, and that such MOUs would not require NOAA Fisheries approval of individual projects, but would define recovery strategies for projects. In accordance with this Congressional direction, NOAA Fisheries entered into MOUs with Washington, Alaska, California, Oregon, the Northwest Indian Fisheries Commission (on behalf of 20 western Washington treaty Tribes), the Columbia River Inter-Tribal Fish Commission (on behalf of 4 Columbia River basin Tribes), and in FY2001 with the Klamath Inter-Tribal Fish & Wildlife Commission (on the behalf of four Klamath River basin Tribes). The MOUs established processes for State/tribal distribution of the funds using criteria for effective use of the funds towards salmon recovery, including reporting requirements, monitoring and evaluation, and other performance measures or standards to ensure full accountability and public access to the information and data collected with these funds. Non-Commission Tribes received PCSRF funds for specific projects through a NOAA Grant or Bureau of Indian Affairs (BIA) contracts.

WASHINGTON

PCSRF funds for Washington were provided to the Salmon Recovery Funding Board (SRFB), a Washington State body created by the Washington State Legislature in 1999 to effectively invest

state and federal funds for salmon habitat protection and restoration projects and related programs and activities that produce sustainable and measurable benefits for fish and their habitat. The SRFB is supported by the Interagency Committee for Outdoor Recreation (IAC), a state agency that administers the project funding. The SRFB's role is to select the best salmon habitat project proposals and activities reflecting local priorities and the best available science, and the IAC issues the funding to the successful project sponsors.

The SRFB's mission, roles and responsibilities and funding strategy can be found at http://www.wa.gov/iac/salmonmain.html. The SRFB is responsible for design and oversight of the funding process, ensuring the best results are produced, and making adjustments when necessary. It conducts its work in consultation with the Governor and consistent with the state salmon strategy "Extinction is Not an Option." The SRFB carries out its mission by funding habitat projects recommended by lead entities that protect, preserve, restore and enhance salmon habitat and watershed functions. It also funds activities that are integrally related to protecting or improving salmon habitat, especially those programs that increase the certainty and effectiveness of habitat projects or address issues involving multiple lead entity areas. The SRFB's work is performed with a comprehensive understanding of other efforts, activities and programs integral to salmon recovery, including harvest and hatchery practices, hydropower operations, water quality issues, setting of instream flows, watershed planning unit activities, governance issues, and Northwest Power Planning Council programs. SRFB decisions are based on science and require that each funded project and program be measured for success. The SRFB has specific policies for its granting process and funding strategy; the Salmon Recovery SRFB grant manual "Policies and Project Selection" and associated grant application materials list these policies in detail.

Local governments, private landowners, conservation districts, Tribes, non-profit organizations, and special purpose districts are eligible to receive project funding for habitat restoration; acquisition of land, rights and easements; and, plans and assessments. All projects must come through one of the 25 geographically distributed "Lead Entity Groups" which are organizations of local or regional groups, including cities, counties, Tribes, non-profits and others, that create citizen committees to prioritize local habitat projects. The Lead Entity Groups submit a prioritized list to the SRFB after it has been evaluated by a Technical Advisory Group and reviewed and prioritized by the citizen committee review group. Once project lists are submitted, the lead entity representatives meet with a technical panel, made up of scientists from different disciplines and representing state government, federal government, local government, and private interest groups, to begin the review process. The SRFB uses a technical merit. Final evaluation and SRFB decisions are based on published criteria and made in open public meetings.

From 1999 through 2001, federal salmon recovery funding (including FY1999 funds from USFWS) has funded 111 organizations conducting 287 projects. These projects have also included non-federal matching funds and volunteer support with a value of over \$18M. During

the same time, the state of Washington has contributed state funds in the amount of \$36M towards salmon recovery efforts through the SRFB. The state funds have supported 95 locallybased organizations conducting 211 projects, and are matched with over \$24M in value contributed by the projects' sponsors. With the PCSRF support, Washington State has also funded activities and programs. PCSRF funds have been used for Forests and Fish activities in accordance with Congressional direction at \$4M per year, and state dollars have funded 13 programs, totaling over \$9M. Table 2 provides a summary of the PCSRF and state funded projects in FY2000 and FY2001.

	Projects	PCSRF Funds	State Funds
Salmon Habitat Restoration	187	\$22,377	\$18,537
Salmon Planning/Assessment	65	\$18,227	\$13,130
Total	252	\$40,604	\$31,677

Table 2. Washington PCSRF Program and Project Funding (in thousands)

ALASKA

The PCSRF funds for Alaska were provided to the Alaska Department of Fish and Game (ADFG) to administer as requested by the Governor of Alaska. Funding has primarily been targeted for the Pacific Salmon Treaty region of Southeast Alaska (east of Cape Suckling) as directed by the Alaska State Legislature. A "Southeast Sustainable Salmon Fund " (SSSF) was established for Alaska's PCSRF funds in 2000. A fourteen-member Stakeholder Advisory Panel and an interagency Science Coordination Panel (including representatives from NOAA Fisheries, Environmental Protection Agency, U.S. Forest Service, U.S. Fish and Wildlife Service, State agencies and University of Alaska) were formed to advise ADFG on use of these funds. PCSRF funds are used for projects that complement the Sustainable Fisheries Policy for the State of Alaska, adopted by the Alaska Board of Fisheries in March 2000. The policy and information on the panels and SSSF are available at the ADFG website at http://www.state.ak.us/adfg. The Stakeholder Advisory and Science Coordination Panels meet in public sessions to determine high priority issues and recommend project funding for: 1) salmon research and monitoring; 2) salmon habitat stewardship and restoration; 3) increasing economic opportunities for Southeast Alaska Salmon Fishermen; and, 4) cooperative salmon and habitat projects with Columbia River tribes and Canada. The Alaska State Legislature has designated sixty percent of the SSSF funding (FY2001 and 2002) for objectives identified by the Stakeholder Advisory Panel to provide economic opportunities (hatchery production, marketing, infrastructure, and education) for salmon fishermen east of Cape Suckling.

Table 3 provides a summary of the projects and program funding with the FY2000 PCSRF funds and a portion of the FY2001 PCSRF funds. Detailed descriptions of the projects are available from NOAA Fisheries or ADFG.

	Projects	PCSRF Funds	State Funds
Salmon Planning/Assessments	19	\$8,526	\$0
Salmon Enhancement	10	\$7,231	\$0
Salmon Research & Monitoring	24	\$6,040	\$3,500
Outreach & Education	9	\$1,681	\$0
Total	62	\$23,478	\$3,500

Table 3. Alaska PCSRF Program and Project Funding (in thousands)

CALIFORNIA

PCSRF funds for California were provided to the California Department of Fish and Game (CDFG) and incorporated into the Fishery Restoration Grants Program (FRGP) which was established in 1981 in response to rapidly declining populations of salmon and steelhead trout and deteriorating salmonid habitat in California. Since 1981, the FRGP has awarded funding to more than 2,000 projects, totaling more than \$89M in grant funds. The majority of this funding was awarded for habitat restoration projects that provide improved overhead cover, spawning gravels, and pool habitat; reduced or eliminated erosion and sedimentation impacts; screened diversions, and removed barriers to fish passage. Funds were also awarded for indirect habitat restoration activities such as cooperative fish rearing, acquisitions of riparian easements, research, project monitoring, watershed assessment and planning, support for watershed organizations, and public outreach and education. Funding for the FRGP increased substantially in the 1997/98 fiscal year with the establishment of the Salmon and Steelhead Trout Restoration Account (SSTRA). This account currently provides up to \$8M per year through June 2003. In FY 2000/01, State Proposition 13 bond funds increased salmonid habitat restoration funding by \$25M, appropriated over three years and ending in June 2003.

Project grants are awarded by the FRGP through an annual competitive Request for Proposal (RFP) process that commences with an advertised request for fishery restoration work proposals. The proposals are forwarded to a regional technical review team, which evaluates them for technical merit, makes comments, scores, and forwards them to a Technical Review Team (TRT). The TRT reviews the regional scores and comments, and forwards the proposals to the California Coastal Salmonid Restoration Grants Peer Review Committee. This advisory committee, established by SSTRA statutory language, evaluates each proposal, makes recommendations for funding, and provides the CDFG Director with a prioritized list of recommended proposals. The CDFG Director then makes final funding decisions.

The FY2000 PCSRF funds had two categories of expenditures identified in the MOU between NOAA Fisheries and CDFG. A discretionary fund (30 percent of PCSRF funds) that is allocated for projects at the discretion of the CDFG Director in consultation with the California Secretary of the Resources Agency and the NOAA Fisheries Regional Administrator; and, a non-discretionary fund (remaining 70 percent of PCSRF funds) that is for grants to be allocated to projects awarded through a competitive process. The discretionary fund was to allow immediate implementation of projects after receipt of the PCSRF funds. The FRGP awarded grants to 30

discretionary projects in coastal counties ranging from Del Norte County in northern California to Santa Barbara County on the south-central coast. Projects selected were those that would have an immediate benefit over a large watershed scale and could be started during the low water flow period during the summer of 2000. The non-discretionary funding was allocated through the FRGP competitive RFP process described above. A total of 425 proposals requesting \$71.7M was received in response to the RFP for FY2000 PCSRF funds. On January 24, 2001, the Director approved 88 projects totaling \$5.9M within coastal counties ranging from Del Norte County in the north, to Ventura County in the south. Contracts and grants were awarded during the winter of 2001, and most of these projects commenced during the summer of 2001. The allocation of these FY2000 PCSRF funds and State funds to program areas is shown in Table 4.

The RFP process for awarding the FY2001 PCSRF funds along with available state restoration funds began on May 18, 2001, with issuance of a RFP. The FY2001 PCSRF funds combined with appropriations from the SSTRA and Proposition 13, totaled \$23.3M for the FRGP to award. The RFP resulted in the submission of 280 proposals totaling \$36.3M. A second RFP advertised in November 2001 to specifically targeted projects that would reduce or eliminate the risk of extirpation of coho salmon on the coast of California resulted in an additional 75 proposals totaling \$17.6M. As of December 2001, the FRGP was still in the process of reviewing, scoring, and obtaining California Coastal Salmonid Restoration Grants Peer Review Committee recommendations and prioritization for the 355 restoration grant proposals requesting \$53.9M. Thus, Table 4 includes only the distribution of FY2000 PCSRF funds.

	Projects	PCSRF Funds	State Funds
Salmon Habitat Restoration	181	\$6,713	\$8,361
Salmon Planning/Assessment	88	\$1,347	\$4,077
Salmon Enhancement	10	\$38	\$249
Salmon Research & Monitoring	15	\$232	\$1,261
Outreach & Education	35	\$355	\$536
Total	329	\$8,685	\$14,484

Table 4. California PCSRF Program and Project Funding (in thousands)

OREGON

PCSRF funds for Oregon were provided to the Oregon Watershed Enhancement Board (OWEB). OWEB distributed the PCSRF funds in tandem with the state restoration funds, allowing flexibility to target investments to both meet local needs and achieve significant, long-term improvements in salmon and watershed health. Oregon is actively working toward salmon restoration through implementation of the "*Oregon Plan for Salmon and Watersheds*" (Oregon Plan), a comprehensive statewide effort initiated by Governor Kitzhaber in 1997. OWEB has invested up to approximately \$15M annually from state lottery funds dedicated to watershed and salmon habitat improvement. Limitations on the use of state funds require the majority of OWEB's funds to be spent on on-the-ground watershed enhancement projects. PCSRF funds provide important flexibility for supporting watershed councils, watershed assessments, monitoring, and education and outreach; all of which are essential to achieving restoration of salmon and watershed health. By integrating use of the PCSRF funds into Oregon's existing infrastructure that invests in voluntary salmon recovery and watershed enhancement efforts, OWEB is able to substantially enhance the effectiveness of the Oregon Plan in recovering salmonids.

OWEB achieves strategic investment of public funds and cost-effective restoration through rigorous technical review of grant proposals, monitoring of restoration projects and results, and balanced Board leadership and policy direction. OWEB's vision and strategies for implementing the Oregon Plan are set forth in OWEB's "*A Strategy for Achieving Healthy Watersheds in Oregon*." This document, as well as guidance to grant applicants and recipients, can be found on OWEB's website at http://www.oweb.state.or.us . OWEB's project selection process is guided by a 17-member Board composed of a representative from each of Oregon's natural resources commissions, Tribes, five federal agencies, the land grant university extension service, and five citizens from different regions of the state. Criteria for assessing proposals and awarding funds are established by Oregon administrative rule, and are applied through regional teams composed of state and federal natural resource field staff with first-hand knowledge of local conditions. These teams use their collective expertise to review grant applications and make funding recommendations to OWEB.

More than 90 local watershed councils and 45 soil and water conservation districts are implementing restoration projects in Oregon, partnering with agencies and private interests, educating and involving people in restoration, and monitoring watershed conditions to understand the effectiveness of restoration work. OWEB is the state agency responsible for supporting this local infrastructure, with strategic funding of restoration projects, watershed assessment and monitoring, public education and outreach, and technical assistance for local efforts.

Between June 2000 and December 2001, OWEB invested a total of \$49M for watershed and salmon habitat improvement in Oregon. This includes \$38M in state funds and \$10.9M in PCSRF funds allocated to 1) salmon habitat restoration and watershed enhancement projects; 2) planning and assessment including Watershed Council support, technical assistance, and assessment of watershed conditions; 3) research and monitoring including state agency projects supporting watershed restoration, Independent Multidisciplinary Science Team, data development and monitoring of watershed conditions; and, 4) education and outreach. Table 5 shows the funding allocated to these programs excluding administration costs. A listing of all of projects with descriptions and funding for each are available from NOAA Fisheries or OWEB.

	Projects	PCSRF Funds	State Funds
Salmon Habitat Restoration	288	\$414	\$29,385
Salmon Planning/Assessment	158	\$5,159	\$2,970
Salmon Research & Monitoring	69	\$2,976	\$1,791

 Table 5. Oregon PCSRF Program and Project Funding (in thousands)

Outreach & Education	55	\$1,889	\$138
Total	570	\$10,974	\$34,284

PACIFIC COASTAL TRIBES

PCSRF funds for the Pacific Coastal Tribes were distributed to 31 Tribes and/or their respective tribal Commissions in Washington, Oregon and California. The funding was distributed to the Northwest Indian Fisheries Commission (on the behalf of 20 western Washington treaty Tribes); the Hoopa Valley and Yurok Tribes in the Klamath River basin in California; the Klamath Tribe in the Klamath River basin in Oregon; the Round Valley Tribe in the Eel River basin in California; the Confederated Tribes of the Chehalis Reservation in Washington; the Coquille Indian Tribe in Oregon; Confederated Tribes of Grand Ronde in Oregon; and the Confederated Tribes of the Siletz Indians of Oregon. In FY2001, the four Klamath basin Tribes (Yurok, Hoopa Valley, Klamath and Karuk Tribes) joined in the Klamath River Inter-Tribal Fish and Water Commission (KITFWC) to obtain PCSRF funding. KITFWC projects and activities using FY2001 PCSRF funds were initiated after December 2001 and thus will be included in future PCSRF reports.

Pacific Coastal Tribes PCSRF funds were used for an array of tribal recovery planning and implementation efforts including salmon habitat restoration and enhancement projects described in subsequent sections of this report. A summary of the Pacific Coast Tribes PCSRF projects is shown in Table 6. More detailed listings of projects is available from NOAA Fisheries or the Tribes.

	Projects	PCSRF Funds
Salmon Habitat Restoration	49	\$3,224
Salmon Planning/Assessment	20	\$1,962
Salmon Enhancement/Supplementation	14	\$1,967
Salmon Research & Monitoring	59	\$4,495
Outreach & Education	1	\$47
Total	143	\$11,695

Table 6. Pacific Coastal Tribes PCSRF Projects and Funding (in thousands)

The majority of the Pacific Coastal Tribes PCSRF funds (\$5.0M and \$6.0M in FY2000 and FY2001, respectively) were provided to the Northwest Indian Fisheries Commission (NWIFC). The NWIFC is a Pacific Northwest tribal organization created in 1974 by Tribes party to the *U.S. vs. Washington* litigation that re-affirmed tribal treaty-reserved rights and established the Tribes as co-managers of the salmon resource with the State of Washington. The NWIFC mission is to assist member Tribes in conducting biologically sound fisheries and providing a unified voice on fisheries management and conservation issues. NWIFC member Tribes receiving PCSRF funds are the Nisqually, Squaxin Island, Puyallup, Jamestown S'Klallam, Port Gamble S'Klallam, Lower Elwha Klallam, Skokomish, Swinomish, Sauk-Suiattle, Upper Skagit, Tulalip, Makah, Stillaguamish, Muckleshoot, Suquamish, Nooksack, Lummi, Hoh, Quinault, and Quileute

Tribes. The NWIFC Tribes used PCSRF funds to build upon tribal recovery programs that restore habitat to improve conditions essential to viable salmon populations; to conduct research and increase tribal capacity to improve the Tribes' understanding of what salmon need and how to most efficiently and effectively provide those needs; to supplement wild salmon stocks in a manner that does not impede their recovery; and, to undertake hatchery reforms to minimize the impacts of artificial propagation on wild salmon. A more detailed description of NWIFC salmon recovery strategies and PCSRF projects are available from NOAA Fisheries or NWIFC.

COLUMBIA RIVER TRIBES

The Columbia River Tribes PCSRF funds were distributed to six Columbia River Tribes in Washington, Oregon and Idaho. All of the FY2000 Columbia River Tribes funding and \$1.85M of the FY2001 tribal funding was provided to the Columbia River Inter-Tribal Fish Commission (CRITFC) on the behalf of four Columbia River basin treaty Tribes. CRITFC was formed in 1977 by resolution of the Nez Perce Tribe, the Confederated Tribes of the Umatilla Indian Reservation, the Confederated Tribes of the Warm Springs Reservation of Oregon and the Confederated Tribes and Bands of the Yakama Nation. A summary of the PCSRF funding by program area for the CRITFC Tribes is shown in Table 7. A description of all of the CRITFC Tribe projects with funding details for each are available from NOAA Fisheries or CRITFC.

In FY2001, PCSRF funding for Columbia River Tribes was extended to include the Colville Confederated Tribes and the Shoshone-Bannock Tribes. These Tribes did not receive PCSRF funding through BIA until late in 2001, so their projects did not begin until 2002.

	Yakama	Nez Perce	Umatilla	Warm	CRITFC	Total
				Springs		
Salmon Habitat Restoration	\$379.9	\$408.9	\$649.9	\$206.7		\$1,645.4
Salmon Planning/Assessments					\$132.0	\$132.0
Salmon Enhancement	\$299.9	\$227.5	\$186.5	\$485.6		\$1,199.5
Salmon Research &	\$156.6	\$200.0		\$144.1	\$375.0	\$875.7
Monitoring						
Total	\$836.4	\$836.4	\$836.4	\$836.4	\$507.0	\$3,852.6

Table 7. PCSRF Program Funding by CRITFC and member Tribes (funding in thousands)

SALMON HABITAT RESTORATION PROGRAMS

Over \$90M in State and PCSRF funds were committed to over 700 habitat restoration projects in 2000 and 2001. This represents almost 50 percent of the funding for all salmon recovery activities reported herein. Salmon habitat restoration projects protect, preserve, restore and enhance salmon habitat and watershed functions, and include property acquisitions for conserving salmon habitat.

Washington

The SRFB funded 187 habitat restoration projects with \$22.4M in PCSRF and \$18.5M State funds. A detailed description and funding for each Washington habitat restoration project are available from NOAA Fisheries or SRFB. A summary of the types of projects is shown in Table 8.

The types of salmon habitat restoration projects funded by Washington are:

1) Instream Diversion projects. This includes projects that affect or provide for the withdrawal and return of surface water, such as screening of fish from the actual water diversion (dam, headgate), the water conveyance system (both gravity and pressurized pump), and bypass of fish back to the stream.

2) Instream Passage projects. This includes projects that affect or provide fish migration up and downstream to include road crossings (bridges and culverts), barriers (dams, log jams), fishways (ladders, chutes, pools), and log and rock weirs.

3) Instream Habitat projects. These are freshwater projects that address or enhance fish habitat below the ordinary high water mark of the water body. Elements include work conducted on or next to the channel, bed, bank, and floodplain by adding or removing rocks, gravel, or woody debris. Other items necessary to complete these projects may include livestock fencing, water conveyance, and plant removal and control.
4) Riparian Habitat projects. These include freshwater, marine near-shore, and estuarine projects that affect or will improve the riparian habitat outside of the ordinary high water mark or in wetlands. Projects may include plantings or plant management, livestock fencing, stream crossings, and water supply.

5) Upland Habitat projects. These address sites or activities that affect water quality and quantity important to fish, occurring above the riparian or estuarine area. Elements can include the timing and delivery of water to the stream; sediment and water temperature control; plant removal, control, and management; and livestock fencing and water supply.

6) Acquisition projects. These include the purchase of land, access, or utilization of rights in fee title or by perpetual easement. Rights or claims may be acquired, provided the value can be established or appraised.

	Projects PCSRF Funds		State Funds
Instream Diversions	6	\$277	\$675
Instream Passage	40	\$3,826	\$2,172
Instream Habitat	53	\$4,347	\$5,397

Table 8. Salmon habitat restoration projects funded in Washington (funding in thousands)

Riparian Habitat	15	\$495	\$596
Upland Habitat	14	\$1,073	\$898
Acquisition	38	\$8,154	\$4,596
Acquisition and Restoration	21	\$4,204	\$4,203

The SRFB also provided \$8M of the PCSRF funds (\$4M each in FY2000 and FY2001) to the Washington Department of Natural Resources (DNR) to support Washington's Forest and Fish Agreement in accordance with Congressional intent in the appropriations. The DNR used the funds to design and construct hydrography and forest roads databases, map upland slopes and update landslide inventories, increase staffing capacity for field work to implement new Forest and Fish rules, and improve public access and review of proposed forest practice activities.

Alaska

During the first year of PCSRF funding, ADFG concentrated on habitat assessments and salmon planning to determine where funds for habitat restoration could best be used. Some habitat restoration projects in Southeast Alaska are expected to move forward with FY2001 PCSRF funds.

California

CDFG provided \$15.1M for 181 habitat restoration projects. A detailed description and funding for each California habitat restoration project are available from NOAA Fisheries or CDFG. A summary of the funding for the six types of projects described below is shown in Table 9.

1) Conservation Easements to Protect/Improve Water Quality and Quantity acquire, from willing sellers, riparian buffer strips along coastal rivers and streams to protect key salmon and steelhead habitat.

2) Instream Barrier Modification are instream projects that modify or remove barriers to migration or emigration.

3) Instream Habitat Restoration projects consist of structures designed to provide overhead cover, reduce bank erosion, sort spawning gravels, and increase the frequency and depth of pool habitats.

4) Riparian Restoration are restoration and revegetation projects in or adjacent to the stream channel.

5) Instream Bank Stabilization are instream projects that stabilize or reduce bank erosion.

6) Watershed Restoration (Upslope) projects include removing or storm proofing roads that are contributing sediments to the stream, stabilizing eroding areas of the hill slope that are outside of the stream channel, and revegetating the riparian area or upslope areas of the watersheds.

	Projects	PCSRF Funds	State Funds
Conservation Easement for Riparian Buffer Strips	3	\$111	\$205
Instream Barrier Modification	18	\$1,484	\$224
Instream Habitat Restoration	37	\$611	\$884
Fish Passage	19	\$1,887	\$464
Riparian Restoration	36	\$791	\$703
Instream Bank Stabilization	22	\$373	\$434
Watershed Restoration (Upslope)	38	\$1,456	\$4,223
Fish Ladder	1		\$50
Fish Screening of Diversions	1		\$78
Project Monitoring for Completed Projects	3		\$57
Project Maintenance	3		\$29

Table 9. Salmon habitat restoration projects funded in California (funding in thousands)

Oregon

OWEB committed a total of \$29.7M for locally sponsored restoration projects designed to recover Pacific salmon and restore and enhance watershed health. This amount includes \$29.3M in state funds and \$0.4M in PCSRF funds. Because the state constitution limits use of 65 percent of dedicated state funds to on-the-ground projects, OWEB targets Oregon's investment of PCSRF funds to activities supporting habitat restoration activities rather than toward funding the projects themselves.

Oregon initiated a watershed restoration project program in 1995. Watershed councils, soil and water conservation districts, and other groups implement projects that are identified as priorities in watershed assessments and that involve local citizens and landowners. Local groups use the *"Oregon Aquatic Habitat Restoration and Enhancement Guide"* developed specifically for the Oregon Plan to design projects that follow sound recovery and restoration methods. These projects result in a wide variety of watershed improvements, including:

- 1) creation of salmon habitat in critical stream reaches;
- 2) removal of barriers to salmon migration;
- 3) enhancement of riparian, wetland, and estuarine areas;
- 4) reduction of point and non-point sources of water pollution;
- 5) reduction of non-natural erosion to streams;
- 6) increase in in-stream water flows to benefit salmon; and
- 7) acquisition of interests in land and water to protect salmon and watershed health.

A more detailed description and funding for each Oregon habitat restoration project are available from NOAA Fisheries or OWEB.

Tribes

Twenty Indian Tribes used PCSRF funds for salmon habitat restoration projects. A short description of each Tribe's work is provided below. A complete description and funding for tribal PCSRF projects are available from NOAA Fisheries or the Tribes.

The Confederated Tribes of the Chehalis Reservation used PCSRF funds for habitat restoration projects in the Upper Chehalis River Basin. Project goals are to increase aquifer recharge capacity, add salmonid over-wintering habitat, and generally improve fish and wildlife habitat to the watershed.

The Colville Confederated Tribes used PCSRF funds to determine the feasibility and effectiveness of groundwater supplementation in Omak Creek to improve steelhead rearing conditions.

The Coquille Indian Tribe used PCSRF funds for road decommissioning and riparian zone brush conversion in the Big Creek watershed in Oregon. The Tribe is decommissioning about 1 mile of roads on tribal lands to reduce fine sediment delivery into salmon habitat from old roads and culvert failure.

The Confederated Tribes of Grand Ronde replaced three culverts that were barriers to upstream fish passage in Agency Creek, a tributary of the Willamette River. The culverts were replaced with appropriately sized culverts that allow upstream and downstream passage of all life stages of salmonids, opening about 4.5 miles of spawning and rearing habitat in Kuri Creek, West Fork Agency Creek Lower, and West Fork Agency Creek Upper.

The Hoopa Valley Tribe used PCSRF funds for diversion screening on Supply Creek. The Hoopa Valley Tribe operates water withdrawal systems on several streams within the reservation to provide for domestic and agricultural uses. The objective was to design and construct a single intake structure to reduce mortality of outmigrant salmonids in Supply Creek which supports fall chinook, coho, and steelhead.

The Jamestown S'Klallam Tribe is working on a cooperative estuary restoration project with Clallam County on Jimmy-Come-Lately Creek to restore the lower creek to a functional salmon-producing creek and foster recovery of summer chum salmon. This includes relocation of the lowest one-half mile of the creek to its historical channel, channel restoration, removal of fill in an estuary at the site of an old log dump, and estuary restoration near the mouth of the creek.

The Klamath Tribes addressed water quality problems in the Upper Klamath Basin above Upper Klamath Lake in south-central Oregon. PCSRF funds were used to assess and address non-point source water pollution in the mainstem Sprague River, a major tributary to Upper Klamath Lake

through which a disproportionately large amount of the overall nutrient load enters the lake system.

The Lower Elwha Tribe participated in ongoing activities targeting the removal of two dams on the Elwha River and the ultimate recovery process for the basin's salmon stocks. The Tribe worked to develop water quality standards for hatchery production during dam removal, refine the salmon recovery plan, identify short-term recovery goals for Elwha River chinook, and monitor beach erosion of the berm that protects the remaining Elwha River Estuary.

The Makah Tribe completed construction of engineered logjam structures in the lower main stem of the Sekiu River, and the first year of monitoring associated with the project. This project will contribute to salmon habitat recovery by increasing channel complexity and decreasing stream energy in a section of the Sekiu River that is critically important for chinook spawning and rearing, and for coho salmon rearing.

The Nez Perce Tribe restored salmon access to pristine habitats within the Lolo Creek Watershed and reduced sedimentation from at-risk culverts. A culvert survey was conducted to determine culvert replacement sites, and two culverts were replaced within Mox and Chamook Creeks (both in the Lolo Creek drainage area). Two barrier (adult and juvenile) culverts in the Waw'aatamnima (Fishing) Creek Watershed and the 'Imnamatnoon Creek Watershed are also being replaced to open 3 miles of habitat in each. The Tribe is protecting salmonid habitat in Mill Creek and John's Creek, both tributaries to the South Fork Clearwater River, from further degradation by cattle grazing through the replacement and construction of new riparian protection/cattle exclusion fencing.

The Quinault Nation is increasing production of Queets River wild coho by enhancing the river's nutrient content through distribution of spawned hatchery salmon carcasses in the watershed. The effectiveness of hatchery carcass distribution within the Queets River system operates under the hypothesis of decreased spawner abundance that has led to a decrease in nutrient influx, and a resulting decrease in the systems carrying capacity.

The Round Valley Tribe used PCSRF funds for road inventory and heavy equipment and completed several miles of road repair, culvert replacements, slope stabilizations, and other stream restoration projects.

The Confederated Tribes of the Siletz Indians of Oregon used PCSRF funds on a Salmonid Estuarine Habitat Restoration Project under a cooperative partnership with the U.S. Forest Service and the U.S. Fish and Wildlife Service. Long-term project goals for the salmonid habitat restoration in estuarine environments include 1) restoring previously diked salt marsh wetlands (degraded farm pastures) to natural tidally influenced salt marsh wetlands, and 2) examining success rates (levels of fish use) for varying (partial or full dike removal) types of restoration methods.

The Skokomish Tribe is removing and replacing a number of culverts, tidal gates, and dikes that are hampering salmon migration and rearing within the Tribe's reservation. Success of projects is being monitored by placing smolt traps in areas that have been re-opened to assess increased production.

The Suquamish Tribe, in conjunction with the City of Bremerton and the State of Washington, is working to restore salmon access to prime spawning and rearing habitat in more than 85 percent of the Gorst Creek watershed that has been blocked since the early 1900s.

The Tulalip Tribes, along with the Stillaguamish, Swinomish and Upper Skagit Tribes, completed streamside-fencing along Katie Creek in the Stillaguamish River basin. The fencing was installed to prevent cattle from having direct access to the creek.

The Confederated Tribes of the Umatilla Indian Reservation used PCSRF funds to acquire and protect spawning and rearing habitat for naturally producing salmonids. The Tribe acquired habitat in the Iskuulpa Creek (formerly Squaw Creek) Subbasin which contains approximately 23 miles of anadromous and resident fish habitat and over 50 miles of riverine habitat. The Tribe also purchased 24 acres (total acreage is 49 acres when cost-share funding is included) on Minthorn Springs. Surface springs located at RM 63.3 (Minthorn Springs) are 6 degrees colder than the mainstem and are the most important summer rearing habitat for juvenile salmonids in the mid-Umatilla River. The Tribe is also acquiring grazing rights on riparian areas through the BIA administered grazing leases and/or conservation easements on private lands presently grazed by livestock. The Tribe is also purchasing 8.79 cfs of agriculture water right (John Gregory [Cooper] Water Right) in the Grande Ronde River basin.

The Confederated Tribes of the Umatilla Indian Reservation also used PCSRF funds to protect and restore habitat and provide instream passage for salmonids in the Walla Walla River Basin. The Tribe also made fish passage improvements in Mission Creek to enhance habitat for improved natural production of anadromous salmonids in the Umatilla River Basin. To enhance restoration efforts, the Tribe supplemented a tribal operated native plant nursery that provides locally adapted plants for riparian restoration projects in the Umatilla, Walla Walla, and Grande Ronde basins.

The Confederated Tribes of the Warm Springs Reservation of Oregon is using PCSRF funds for watershed restoration efforts. In the Deschutes River subbasin where over 20 miles of riparian enclosure fencing has been placed in past years, the Tribe has increased fence patrols and treatments for noxious weeds and juniper encroachment are needed to reach the desired results for these riparian protection projects. The Tribe purchased a new diversion screen to eliminate entrainment of salmonids at Farmers Canal, an 80 cfs diversion on the mainstem Hood River.

The Confederated Tribes of the Warm Springs Reservation of Oregon also used PCSRF funds for a John Day watershed restoration program consisting of construction of riparian corridor grazing fences. The Tribe is also acquiring land in the John Forrest Ranch to protect sensitive salmon habitat in the John Day River system.

The Confederated Tribes and Bands of the Yakama Nation used PCSRF funds for several habitat restoration projects. To reverse habitat degradation in Ahtanum Creek (a tributary to the Yakima River) from grazing, the Tribe is fencing about 14 miles of the creek and revegitating the riparian zone. Nine off-channel stock watering sites are being constructed. The Tribe is reconstructing two fishways to increase fish passage over Castille Falls, making 45 miles of spawning and rearing habitat for spring chinook and approximately 60 miles for steelhead. The Tribe also contributed to the Hanson Ponds Floodplain Restoration Project on Yakima River, and will improve stream channel geomorphic function, restore riparian habitat, increase summer baseflow, and improve water quality through sediment and temperature reduction in a headwater meadow complex known as Starvation Flats in the Dry Creek-Status Creek-Yakima River system.

The Yurok Tribe implemented upslope restoration activities in McGarvey Creek, a tributary to the Lower Klamath River, that has consistently been documented as an important spawning and rearing stream for coho salmon. Six instream habitat structures were constructed in an unnamed tributary to McGarvey Creek to increase habitat diversity and increase its value to spawning and rearing salmonids. The Tribe also undertook a habitat restoration project in Blue Creek, the largest tributary to the Lower Klamath River, containing the healthiest populations of anadromous salmonids in this sub-basin. The Tribe also planted native conifer species throughout the riparian corridor in the project areas.

SALMON PLANNING AND ASSESSMENT PROGRAMS

Over \$55M in State and PCSRF funds were committed to over 350 habitat restoration projects in 2000 and 2001. This represents about 30 percent of the funding for all salmon recovery activities reported herein. Salmon planning and assessment projects covered recovery planning and participation in technical recovery teams; watershed assessments including mapping/inventory for plans; sub-basin planning; Watershed Councils and support for them; and, organizational infrastructure and staffing for local conservation groups and tribal entities.

Washington

The SRFB provided \$31.4M for 65 assessment projects. These projects include local assessments/studies, implementing the Forest and Fish Agreement, regional capacity, nearshore projects, instream flows, and other programs and activities. They include feasibility studies; channel migration studies; reach-level, near-shore, and estuarine assessments; and inventories such as barriers, unscreened water diversions, and landslide hazard areas. A feasibility study could include assessing the willingness of landowners to allow access to their land for a habitat restoration project or to consider selling a property interest. The results of proposed assessments

must directly and clearly lead to identification, siting, or design of habitat protection or restoration projects. Assessments intended for research purposes, monitoring, or to further general knowledge and understanding of watershed conditions and function, although important, are not eligible for SRFB funding. Assessments must be closely coordinated with other assessments and data collection efforts in the watershed and with federal, tribal, state, regional, and local organizations to prevent duplication and ensure the use of appropriate methods and protocols. To improve coordination, lead entities and applicants are encouraged to partner with each other. Assessments and studies must be completed within two years unless additional time can be justified by the project sponsor. A listing of the individual projects with descriptions and funding for each are available from NOAA Fisheries or SRFB.

Alaska

ADFG used \$8.5M of its PCSRF funds for the following two types of salmon planning and assessment projects. A listing of the individual projects with descriptions and funding for each are available from NOAA Fisheries or ADFG.

1) Watershed evaluation and assessment studies. ADFG used \$6.5M of PCSRF funds for 14 projects. These projects include information to begin determining where watershed assessments, habitat restoration, and salmon habitat stewardship should be focused in Southeast Alaska. These projects include identifying, mapping, and making available through the web, to resource managers and the public, information on important salmon habitats. They include planning to address invasive species issues, developing a process for identifying and protecting marine habitat that is particularly important to salmon, and working with other agencies, communities, and the public to avoid, minimize or mitigate adverse impacts to salmon habitat from development projects.

2) Public involvement and capacity building. ADFG used \$2.1M of PCSRF funds for 5 projects. They include support for participation in planning for international watersheds (US-Canada), technical assistance to entities that would like to develop community watershed stewardship councils, and direct support for councils that are developed, including public meetings, operations, and salmon habitat restoration efforts.

California

CDFG provided \$5.4M for 88 salmon planning and assessment projects. A summary of the types of projects is shown in Table 10. A detailed description and funding for each project are available from NOAA Fisheries or CDFG.

The types of habitat restoration projects in California are:

1) Watershed Organizational Support. These are projects that assist locally based nonprofit watershed restoration organizations, or any public entity, that generates public and landowner support for anadromous salmonid habitat restoration of local watersheds.

2) Public Involvement and Capacity Building. These projects provide for public involvement in support of watershed health for anadromous salmonids, and capacity building within regional/county efforts that are directed towards specific salmon and steelhead habitat restoration efforts.

3) Watershed Evaluation, Assessment, and Planning Projects. These projects provide a complete and detailed process of watershed evaluation and assessment that culminates in completion of an integrated plan containing site-specific and clearly prioritized recommendations for work that will lead to the restoration of salmonid habitat in a watershed.

4) Watershed Assessment Projects. These are projects that assess both the physical and social aspects of the watershed to determine "keystone" corrections for restoring anadromous salmonid habitats. These projects provide clearly prioritized site specific restoration actions needed to improve or restore anadromous salmonids in the watershed.

	Projects	PCSRF Funds	State Funds
Watershed Evaluation, Assessment, and Planning	28		\$1,548
Assessment Project	28	\$877	\$857
Watershed Organization Support	18		\$673
Americorps Program	1		\$256
Public Involvement and Capacity Building	13	\$470	\$743

Table 10. Salmon planning and assessment projects funded in California (funding in thousands)

Oregon

OWEB used \$8.1M for 158 salmon planning and assessment projects. Funding provided for the three project areas described below is shown in Table 11. A detailed description and funding for each project are available from NOAA Fisheries or OWEB.

1) Locally sponsored assessments of watershed conditions. Using a template designed by the State in collaboration with federal resource agencies, local watershed councils and soil and water conservation districts conduct watershed assessments to determine where, within a given watershed, work is needed to restore natural processes or features related to fish habitat and water quality. Watershed assessments enable local groups to 1) identify features and processes important to salmon habitat and water quality; 2) determine how natural processes are influencing those resources; 3) understand how human activities are affecting salmon habitat and water quality; and 4) evaluate the cumulative effects of land management practices over time.

2) Technical assistance to watershed councils, soil and water conservation districts, and individual landowners for engineering design, conservation planning, fluvial geomorphology, and other technical services supporting restoration project implementation. Technical assistance funding is necessary to enhance the quality of local restoration activities, and support implementation of the federal Conservation Reserve Enhancement Program. Lack of resources supporting technical design, planning, permitting, and application of technology is a significant constraint that impedes on-theground restoration work. This allocation by OWEB directly supported project development and implementation by 21 local watershed groups around the state.

3) Support for the capacity of local watershed councils to undertake restoration activities. More than 90 watershed councils are established in Oregon, implementing restoration projects, partnering with agencies and private interests, educating and involving people in restoration, and monitoring watershed conditions to understand the effectiveness of restoration work. Watershed councils are composed of volunteers from local Oregon communities. They provide a forum for citizens, landowners, businesses, government, and other stakeholders to discuss local watershed conditions and to collaborate on restoration opportunities. OWEB grants support a variety of watershed council operations, including: salaries and support for council coordinators; training of council coordinators; materials used by coordinators to conduct council business; and restoration action planning for council coordinators. Watershed councils and soil and water conservation districts also use OWEB funding to purchase assessment equipment, hire watershed consultants, and do watershed mapping necessary for assessment. The template used by these groups is the Oregon Watershed Assessment Manual developed by OWEB. The manual helps ensure that local groups accurately assess watershed conditions, which in turn enables them to strategically plan salmon recovery and watershed restoration actions where the investment of time and money will yield the best results. Watershed assessments have been completed throughout much of the state, particularly in the coastal, Willamette, and Deschutes basins. Additional assessments are planned for, or are underway, in other basins that are key to recovering listed salmonids.

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	Projects	PCSRF Funds	State Funds
Locally Sponsored Assessments of Watershed Conditions	48	\$2,334	\$341
Technical Assistance to Watershed Councils, Soil and Water Conservation Districts and Individual Landowners	26	\$759	\$212
Watershed Council Support	84	\$2,066	\$2,418

Table 11. Salmon	planning and assessment	projects funded in Oreg	gon (funding in thousands)
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Tribes

Fifteen Indian Tribes used PCSRF funds for salmon planning and assessment projects. A short description of each Tribe's work is provided below. A complete description and funding for tribal PCSRF projects are available from NOAA Fisheries or the Tribes.

The Hoopa Valley Tribe conducted road assessments at Hostler and Soctish Creeks to identify segments of road within the watershed that need storm-proofing, decommissioning or upgrading to reduce impacts to water quality and fish habitat. The project involves walking approximately 46 miles of road within the Hostler and 36 miles of road within the Soctish Creek watersheds.

The Jamestown S'Klallam Tribe is planning riparian corridor protection and restoration work along the Dungeness River. Aerial photos of the Dungeness River corridor were taken and are being used by the Tribe and other local agencies for restoration planning, analysis of stream channel changes, and assessment of habitat conditions. The Tribe also participated in the completion of an overall salmon recovery strategy for the North Olympic Peninsula through the North Olympic Peninsula Salmon Recovery Lead Entity Group and Technical Review Group.

The Lower Elwha Klallam Tribe is developing an On-Reservation Programmatic Plan to address implementation of the ESA on Tribal lands. The Tribe also participated in developing a "Limiting Factors Analysis" for several watersheds and designing habitat restoration projects addressing issues identified in those reports.

The Lummi Nation used PCSRF funds to conduct salmon recovery planning and coordination in the Nooksack River basin. This includes research and assessment of salmon recovery activities in the Nooksack River basin in cooperation with salmon co-managers, land-use managers, volunteer groups and citizen interest groups.

The Makah Tribe continued the Lake Ozette sockeye recovery planning effort that focuses on integrating various monitoring and research projects with the Lake Ozette Limiting Factors report, Lake Ozette baseline habitat inventory, Lake Ozette Sockeye Hatchery and Genetic Management Plan and the overall Lake Ozette Sockeye Recovery Plan.

The Nisqually Tribe began implementing the Nisqually Salmon Recovery Plan for the Nisqually Salmon Habitat Restoration Program. Work has focused on developing and implementing salmon habitat restoration projects in high priority areas, conducting research to assess the quality of salmon habitat and to understand how salmon are currently utilizing the habitat, and developing partnerships with other organizations and the community to involve them in recovering Nisqually salmon.

The Port Gamble S'Klallam Tribe participated in forums for addressing salmon harvest management issues including Hood Canal summer chum harvest management, Puget Sound comprehensive chinook management and Puget Sound comprehensive coho management. The

Tribe is an active participant in the Hood Canal Coordinating Council, an inter-governmental watershed-based organization active in salmon recovery planning, composed of Kitsap, Mason, and Jefferson counties as well as Port Gamble S'Klallam and Skokomish Tribes.

The Shoshone-Bannock Tribes augmented staff capacity to coordinate with Technical Recovery Teams, and collaborate with NOAA Fisheries and co-managers to develop ESA Section 4(d) Tribal Resource Management Plans (TRMPs). TRMPs incorporate the elements of a Hatchery Genetics Management Plan and Fisheries Management and Evaluation Plan for the implementation, monitoring and evaluation of production and harvest agreements under *U.S. v Oregon*.

The Skagit System Cooperative (Upper Skagit, Sauk-Suiattle and Swinomish Tribes) entered into a cooperative feasibility study for a restoration project on Brown Hall Slough near the Skagit River delta. Project cooperators include the Skagit Watershed Council and Seattle City Light.

The Skokomish Tribe is assessing damage to the Skokomish River watershed in preparation for long-term habitat repair project. The Tribe has placed smolt traps at various places in the watershed to track outmigrants.

The Squaxin Island Tribe is developing a salmon recovery strategy for southern Puget Sound. A comprehensive collection of data for the area was assembled to develop a working trophic level model for assessing productivity of the South Puget Sound Eco-region.

The Stillaguamish Tribe is conducting an integrated chinook salmon recovery project for the Stillaguamish River watershed. A landslide hazard zonation map has been developed in concert with work being done on the Skagit River, and a model of peak flow impacts within the Stillaguamish watershed has also been developed.

The Suquamish Tribe involvement with Kitsap County's Salmon Habitat Protection and Restoration Plan resulted in hundreds of pages of technical recommendations and modifications to current land use regulations, riparian corridor requirements, improvements to storm water source control, roads maintenance, and groundwater to name a few of the issues covered.

The Tulalip Tribes developed chinook and coho recovery strategies for the Stillaguamish and Snohomish basins. The co-managers chinook harvest management plan was completed and submitted to NOAA Fisheries as a Resource Management Plan acceptable under the 4(d) rule for exemption from no take provisions.

The Yurok Tribe funded staff to participate on the Technical Recovery Team for the Southern Oregon/Northern California Recovery Plan Domain.

SALMON ENHANCEMENT PROGRAMS

Over \$10M in State and PCSRF funds were committed to over 40 salmon enhancement projects in 2000 and 2001. This represents about 6 percent of the funding for all salmon recovery activities reported herein. Salmon enhancement projects were for acclimation site development, supplementation, artificial propagation, and salmon fishery enhancements.

Washington

A number of organizations in the state of Washington are focused on salmon enhancement and supplementation projects, such as Regional Fisheries Enhancement Groups. At this time, the SRFB is focusing on on-the-ground projects and relying on other organizations for supplementation.

Alaska

The vision for the PCSRF program in Alaska includes a viable salmon industry that is an integral part of ensure long-term survival of salmon and their habitat. Therefore, the Alaska program includes a project area for increasing economic opportunities for salmon fishermen in Southeast Alaska, which has as sub-projects: enhancement, infrastructure, marketing and education. ADFG used PCSRF funds for the following enhancement, infrastructure, and marketing projects. A detailed description and funding for each project are available from NOAA Fisheries or ADFG.

1) Enhancement and supplementation. ADFG funded 7 projects totaling \$4.5M in PCSRF funds. Projects in this subcategory include increasing salmon available for the common property resource, studies of natural barriers, and supplementation evaluations in Columbia River watershed.

2) Infrastructure. ADFG funded 2 projects totaling \$0.1M in PCSRF funds. These projects include improving cold storage facilities and identifying ways to move fresh salmon to market in a timely fashion.

3) Marketing. ADFG funded 1 project for \$1M in PCSRF funds. This project focused on developing and implementing a marketing plan for troll caught salmon.

California

CDFG used \$0.4M of PCSRF funds and \$0.2M in State funds for 10 Cooperative Rearing Projects. These are stream-side artificial propagation projects to restore depleted stocks of salmonids. A detailed description and funding for each project are available from NOAA Fisheries or CDFG.

Oregon

OWEB is not currently funding enhancement or supplementation projects.

Tribes

Ten Indian Tribes used PCSRF funds for salmon enhancement projects. A short description of each Tribe's work is provided below. A complete description and funding for tribal PCSRF projects are available from NOAA Fisheries or the Tribes.

The Colville Confederated Tribes used PCSRF funds for planning and implementing measures to restore anadromous fish to tribal fishing areas, including restoration of chinook salmon stocks and a steelhead kelt reconditioning feasibility study in the Okanogan River basin. PCSRF funds are being used to design and construct an acclimation site for 50,000 spring Chinook smolts located on the lower reach of Omak Creek, and to operate broodstock collection facilities to propagate steelhead in the Okanogan sub-basin.

The Muckleshoot Tribe used PCSRF funds to continue its effort to restore White River spring chinook by increasing juvenile survival during hatchery rearing at the Muckleshoot Tribe's White River Hatchery. The hatchery production protects the stock from demographic extinction and sustains it until conditions, which led to declines in abundance, can be addressed.

The Nez Perce Tribe is restoring coho salmon in the Snake River Basin. Restoration of coho stocks upriver of Bonneville Dam, a tribal restoration priority, is occurring with production at hatcheries located in the Clearwater River (Dworshak/Kooskia National Fish Hatchery and Clearwater Fish Hatchery), and in the lower Columbia River (Willard National Fish Hatchery). The Tribe also is enhancing natural production of fall chinook in the Grande Ronde River by modifying the Cottonwood Creek Acclimation Facility.

The Puyallup Tribe conducted enhancement work on White River spring chinook and other salmon in the upper Puyallup River watershed. The Tribe continued the operation and maintenance of the Puyallup River screw trap to monitor mainstem smolt emigration.

The Quinault Nation used PCSRF funds for a Queets River wild coho supplementation program. The supplementation program uses innovative enhancement techniques including capturing wild broodstock at various sites associated with upper mainstems and high gradient steams; raising the progeny of each site separately to the pre-smolt stage; acclimating the pre-smolts in natural or semi-natural pond sites near the location of the originating parents; and allowing for volitional release as smolts. The Tribe also undertook an array of enhancement and supplementation strategies to boost production of Quinault River sockeye.

The Round Valley Tribe used PCSRF funds for salmonid harvest management and monitoring, and tribal fisheries enforcement to enhance returns of wild salmonids.

The Shoshone-Bannock Tribes is implementing artificial production actions in the Salmon River and its tributaries upstream from the Middle Fork Salmon River to restore naturally-producing populations in a more natural way than traditional hatchery practices. The Tribe also is monitoring and evaluating its production initiatives that are conducted under *U.S. v Oregon* agreements to quantify production output and adult returns, and monitor environmental parameters used to determine output timing, location and life stage.

The Confederated Tribes of the Umatilla Indian Reservation is purchasing salmonid transportation vehicles that otherwise are at a premium in the Columbia Basin. In many cases, adults and/or juveniles are hauled based on transportation availability rather than biological requirements.

The Confederated Tribes of the Warm Springs Reservation of Oregon is using PCSRF funds for salmon production issues on the Warm Springs Reservation and throughout the Deschutes River. The Tribe conducted a fish production assessment on the Warm Springs Reservation including: 1) monitoring production of anadromous salmonids from reservation streams; 2) conducting Shitike Creek spring chinook outplant and evaluation; and, 3) developing and implementing a terminal fisheries project. The Tribe shaded raceways at the Warm Springs National Fish Hatchery to reduce impacts of direct sunlight exposure on juvenile salmon. The Tribe also will outplant spring chinook salmon into the lower 15 miles of Shitike Creek and examine the feasibility of re-introducing salmon upstream of the hydropower projects on the Deschutes River.

The Confederated Tribes and Bands of the Yakama Nation purchased 5.45 acres with an in-kind contribution of an additional 3.5 adjoining acres by Washington Department of Fish and Wildlife to develop a coho acclimation site at Swale Creek to increase returns to the Klickitat basin. The Tribe also installed three rearing troughs at the Klickitat Hatchery, allowing for rearing of 300,000 steelhead fry and resulting in reduced flow demand and densities for outside rearing of fall chinook.

SALMON RESEARCH AND MONITORING PROGRAMS

Over \$21M in State and PCSRF funds were committed to about 175 salmon research and monitoring projects in 2000 and 2001. This represents over 10 percent of the funding for all salmon recovery activities reported herein. Salmon research and monitoring projects ranged from stream surveys and redd counts to flow monitoring in various systems as well as specific investigations such as habitat factors limiting natural production.

Washington

The SRFB has found that measuring success in recovering salmon and maintaining watershed health is vital. Policy makers and salmon advocates must have tools to know what is working for

fish and watersheds, so they can determine the success of public, private and volunteer investments. The SRFB requested state legislative support for a major strategic initiative during 2001 and 2002. This effort, known as the Comprehensive Monitoring Strategy, will identify current monitoring efforts, and recommend future approaches to regional, watershed and projectscale monitoring. The Strategy will also address the state's Independent Science Panel (ISP) recommendation that the state develop a coordinated monitoring strategy and action plan to meet salmon recovery goals and objectives. The final report must include the monitoring strategy and an action plan for implementation. The recommendations must be based on a goal of fully implementing an enhanced and coordinated monitoring program by June 30, 2007.

Alaska

ADFG used \$9.5M of PCSRF and state funds for 24 monitoring projects that collect baseline and/or trend data. These projects include mark-recapture programs, estimating escapement to avoid over harvest, stream production of salmon, genetic work, development of better models to improve accuracy of harvest information, coded-wire tag studies, lake productivity, the effect of hatchery salmon on wild salmon, pollution of salmon, and subsistence use of salmon in Southeast Alaska. A detailed description and funding for each project are available from NOAA Fisheries or ADFG.

California

CDFG used \$0.2M of PCSRF funds and \$1.3M of state funds for 15 salmon research and monitoring projects. A detailed description and funding for each project are available from NOAA Fisheries or CDFG. The two research/monitoring program areas are:

1) Research Projects that Advance the Science of Anadromous Fish Recovery. CDFG funded 6 projects totaling \$0.7M that advance the science of anadromous fish recovery resulting in recommendations for restoration and management activities.

2) Monitoring Projects to Collect Baseline and/or Trend Data. CDFG funded 9 projects totaling \$0.8M that provide baseline and/or trend data for anadromous fish populations or on physical factors known to be limiting their recovery.

Oregon

OWEB provided \$2.6M (\$1.0M in state funds and \$1.6M in PCSRF funds) for state agency projects principally relating to monitoring and data collection and supporting restoration and recovery efforts. Coordination among state agencies to implement programs and provide assistance to local groups is a necessary part of achieving improvements in salmon and watershed health. OWEB grants have enabled other state agencies to support watershed councils, local governments, landowners, and others with technical assistance for watershed enhancement projects, monitoring, assessment, and education.

OWEB also provided \$2.2M (\$0.4M in state funds and \$1.8M in PCSRF funds) for locally sponsored projects monitoring watershed conditions. Watershed councils, state and federal agencies, and other groups monitor local watershed conditions to better understand trends in salmon populations and watershed health, and to determine whether completed restoration projects have achieved their intended goals. A variety of monitoring efforts were funded including salmon and aquatic insect monitoring; water quality and stream flow monitoring; wetland, estuarine, stream, riparian and upland condition monitoring; and restoration project effectiveness monitoring. Data collected through monitoring are used to develop projects and plans to restore watershed health. Local groups and state and federal agencies use the Water Quality Monitoring Guidebook developed for the Oregon Plan to ensure sound monitoring techniques and to produce widely accessible information. OWEB has adopted a Monitoring Strategy to guide future investments in monitoring of salmon populations, environmental conditions, and project effectiveness. Locally sponsored monitoring proposals funded by OWEB are reviewed and evaluated by an interdisciplinary team in the context of the state's overall monitoring effort. A detailed description and funding for each project are available from NOAA Fisheries or OWEB.

Tribes

Sixteen Indian Tribes and tribal commissions used PCSRF funds for salmon research and monitoring projects. A short description of each Tribe's work is provided below. A complete description and funding for tribal PCSRF projects are available from NOAA Fisheries or the Tribes.

The Hoh Tribe conducted research on desired future conditions, a measurement of vegetation near streams that provide shade, woody debris and other functions important to salmon and their habitat. Phase I of the project was successfully concluded and Phase II is ready to be implemented. Phase I included identification of field sites, gathering and cataloging historic stand information, stratifying the sites according to the metrics identified above, and beginning fieldwork and data-gathering.

The Hoopa Valley Tribe used PCSRF funds for comprehensive assessment of anadromous fish bearing tributaries on the Hoopa Valley Reservation, sampling outmigrants and macroinvertebrates to assess production in lower Trinity River tributaries, and for continuous water quality monitoring stations in the lower reaches of Hostler and Soctish Creeks to provide quantitative water quality data.

The Makah Tribe conducted research on factors limiting natural production of Lake Ozette sockeye. Spawning ground surveys were conducted for sockeye in the tributaries and along the lakeshore of Lake Ozette.

The Nez Perce Tribe used PCSRF funds for a project to restore coho salmon in the Clearwater River. The Tribe monitored and evaluated coho salmon releases to obtain information necessary to determine the best implementation strategies for broodstock development, fisheries and natural production.

The Nisqually Tribe conducted an assessment of habitat factors along the Lower Mashel River, a high priority habitat area for a number of Nisqually salmonids, including a scouring monitoring study to evaluate the potential impact of scouring on chinook and steelhead redds. In addition, comprehensive survey work is being conducted throughout the Nisqually watershed to evaluate the timing and distribution of spawning salmon.

The Nooksack Tribe is conducting quantitative data collection on the Nooksack River Basin spring chinook. The spawning ground surveys for adult chinook were increased in frequency in all of the previous study areas and specific new areas were added that had been neglected due to availability of staff.

The Port Gamble S'Klallam Tribe initiated more effective catch and population monitoring procedures. Together with other Point No Point Treaty Council Tribes, the Port Gamble S'Klallam Tribe is developing a comprehensive treaty area-wide (Hood Canal and Strait of Juan de Fuca) monitoring program to meet these requirements to record the results of management actions and to evaluate assumptions about salmon populations and fisheries. The Tribe also is locating and compiling habitat and water quality data for its usual and accustomed area for use in the Washington Conservation Commission's habitat limiting factors report for Hood Canal.

The Puyallup Tribe marked coho and chinook smolts released in the upper Puyallup River. The Tribe is monitoring a fish trap at the Electron hydroelectric project to assess run rebuilding upstream of Electron Dam.

The Quileute Tribe conducted spawner surveys and habitat assessments to determine fish passage in Lake Creek, a tributary of the Sol Duc River. Data collected indicate that Lake Creek is dominated by spawning habitat.

The Skagit System Cooperative (Upper Skagit, Sauk-Suiattle and Swinomish Tribes) is studying how wild salmon respond to habitat destruction and restoration. This information is necessary to develop an accurate measurement of the link between habitats and the numbers of fish produced by those habitats, and composition analysis of chinook, coho and chum runs on the Skagit River system. The Tribe is also working on limiting factors model data inputs for Skagit wild chinook.

The Stillaguamish Tribe gathered preliminary data on peak flow history and egg-to-fry survival. In cooperation with Snohomish County Surface Water Management, the Tribe has developed a geographic information system layer depicting restoration efforts in the Stillaguamish Basin over the last 3-4 years. The Tribe also installed a screw trap in the lower mainstem Stillaguamish River to collect salmonid smolt outmigration data.

The Suquamish Tribe constructed and monitored a smolt trap on Grovers Creek to evaluate survival of last years planted hatchery-fed coho fry for comparison to naturally spawning coho fry (if any) survival next year. The Tribe will assess the survival of the natural Grovers Creek coho production relative to the Agate Pass net pen strays using the presence/absence of mass marks and coded-wire tags.

The Tulalip Tribes established a new on-reservation water quality monitoring program directed by the Tribe's salmon hatchery manager. The monitoring program collects water samples from 15 locations in Tulalip, Battle and Quilceda Creeks. The Tribe is also conducting a juvenile fish trapping program.

The Confederated Tribes of the Warm Springs Reservation of Oregon conducted a markrecapture experiment for estimating adult fall chinook salmon escapement to the Deschutes River, Oregon. The Tribe is conducting aerial thermal infrared and color videography of anadromous streams on the Warm Springs Reservation. Traditional methods for monitoring stream temperatures have relied on instream temperature monitors, but with the use of remote sensing, it is possible to quickly map stream temperatures across entire stream networks (mainstem and tributaries).

The Confederated Tribes and Bands of the Yakama Nation is monitoring and evaluating supplementation programs in the upper Columbia Basin by collecting wire tags and mark data from the landed catch in treaty Indian subsistence and commercial fisheries in Zone 6 of the Columbia River. The Tribe also is installing passive integrated transponder (PIT) tag detectors at all three adult fish ladders at Prosser Dam on the Yakima River. The project will greatly enhance the monitoring and evaluation of fall chinook, coho, steelhead, and spring chinook returns in the Yakima River and provide information on survival rates, stray rates, mortality sources and spawning locations.

The Yurok Tribe used PCSRF funds to conduct flow studies, and to purchase critical equipment necessary for the Tribe to be an active and responsible participant in ongoing Klamath River flow studies. The intent of these flow studies is to determine the quantity and quality of water needed in the Klamath River for anadromous fish. The Tribe also designed and installed permanent stream gauging and water quality monitoring stations for lower McGarvey and Blue Creeks, and operated a five-foot rotary screw trap in lower Blue Creek.

The Columbia River Inter-Tribal Fish Commission is using PCSRF funds for population genetics and risk/benefit analyses complementing continuing contracted monitoring and evaluation support. The project will include 1) development of Artificial Propagation guidelines; 2) a paper on the potential for reduced effective population size in supplemented populations; and, 3) development of a domestic research strategy. The Commission is also conducting literature reviews on population genetics and ecology of artificial propagation/natural population

interactions, and developed methodology to identify ecologically sound methods of using artificial propagation in tribal programs.

OUTREACH AND EDUCATION PROGRAMS

About \$4M in State and PCSRF funds were committed to outreach and education projects in 2000 and 2001. This represents about 3 percent of the funding for all salmon recovery activities reported herein. This funding likely underestimates the total funding and effort that the States and Tribes devote to outreach and education since many efforts are undertaken with base funds and not attributed to this program.

Washington

The SRFB did not use PCSRF funds for outreach programs, but it does encourage active public participation. The SRFB's monthly and semi-monthly meetings are held in watershed locations around the state, and the Board also seeks on-the-ground tours of local areas with local salmon advocates. The SRFB's Technical Panel, composed of experts assembled to review all project proposals, has traveled to each of the state's lead entities areas before reviewing project requests. The SRFB also works closely with the Governor's Natural Resources Cabinet and federal agencies.

Alaska

ADFG used \$1.7M of its PCSRF funds for the following two types of outreach and education projects. A listing of the individual projects with descriptions and funding for each are available from NOAA Fisheries or ADFG.

1) Technical Training. ADFG funded one project totaling \$0.2M. This project developed a fisheries technician program at the University of Alaska. Ensuring a source of qualified fisheries technicians with practical and academic skills is critical to continued responsible and sustainable salmon management in Alaska.

2) Public Education. ADFG funded 8 projects totaling \$1.5M. The funded projects include developing a salmon publication and teacher's manual for use in middle and high schools, hands on education opportunities at hatcheries, ensuring Alaska stakeholders in the PCSRF process are informed and able to participate in making recommendations, and providing technical assistance to stakeholders and the public.

California

CDFG used \$0.9M of its PCSRF funds for the following two types of outreach and education projects. A listing of the individual projects with descriptions and funding for each are available from NOAA Fisheries or CDFG.

1) Private Sector Technical Training. CDFG funded 15 projects with \$0.2M in PCSRF funds and \$0.2M in State funds. These projects teach private landowners practical means of improving land and water management practices, which if implemented, will contribute to the protection, improvement, and restoration of salmon habitat.

2) Public Education. CDFG funded 20 projects with \$0.1M in PCSRF funds and \$0.3M in State funds. These public education projects provide school children with information on anadromous salmonid life cycles and habitat requirements.

Oregon

OWEB provided \$2.0M for locally sponsored education and outreach. Public education and outreach on watershed conditions and restoration opportunities are necessary parts of gaining community support for and participation in watershed enhancement projects. Watershed councils and soil and water conservation districts are effective in citizen education and outreach because they operate at the local community level. Grants to these local groups support citizen learning with funding for education, coordination, materials, and training. Examples include 1) conducting watershed restoration workshops for landowners and educators; 2) providing students with opportunities for field study and watershed learning; 3) engaging youth and adults in programs of water quality monitoring; 4) developing community informational materials, such as brochures, interpretive signs, and newsletters; and 5) developing, providing training for, and implementing a watershed-based science curriculum for K-12 teachers.

Tribes

Three Indian Tribes identified outreach and education as uses of their PCSRF funds; however, other Tribes have outreach incorporated into their planning efforts. A short description of the three tribal outreach and education projects is provided below. A complete description and funding for tribal PCSRF projects are available from NOAA Fisheries or the Tribes.

The Colville Confederated Tribes used PCSRF funds to develop outreach and educational materials and activities, including a multipurpose, three-dimensional display that highlights and promotes Colville Tribal salmon recovery activities.

The Stillaguamish Tribe is developing a public education and outreach component specific to chinook salmon recovery for the Tribes' annual Festival of the River celebration. The festival focuses on educating local citizens about water quality and fish and wildlife habitat.

The Hoopa Valley Tribe used PCSRF funds for heavy equipment operator training to reduce heavy equipment impacts to water quality and fish habitat. Training focused on techniques that result in the fewest impacts to water quality and to fish habitat. The training performed in 2001 was expanded to include correct placement and construction of water bars, rolling dips, grading of roads, culvert installation and removal, road outsloping, etc. The training was split up into two sessions, one during the dead of winter and the other in the early summer or late spring. The winter session included ½ day in the office and ½ day in the field each day, observing the hydrologic implications of road construction and read reconstruction practices. The late spring/early summer session included on-site equipment and training on correct procedures to outslope roads, install water bars, install rolling dips, pull ditches and blade berms off roads.

PCSRF WORKSHOP - January 2002

NOAA Fisheries sponsored the first PCSRF Workshop on January 29-31, 2002 in Portland, OR. The purpose of the workshop was to provide an opportunity for collective dialogue between the Tribes, States and NOAA Fisheries on the current and future implementation of the PCSRF and to focus on program reporting and monitoring/evaluation efforts. More than 100 state, federal and tribal staff attended the PCSRF Workshop to share their successes and challenges as "co-managers" of PCSRF funds. Participants reaffirmed that the PCSRF is an important Congressional initiative strengthening the ability of the States and Tribes to help in the recovery of ESA listed salmon and steelhead. Workshop participants represented the states of Alaska, Washington, Oregon, and California; NOAA Fisheries; three Tribal fisheries commissions, and twenty-five Pacific Northwest and northern California Tribes. Other participants included representatives of the Pacific Salmon Commission, the State of Idaho, and the Northwest Power Planning Council.

The PCSRF Workshop gave states and Tribes the opportunity to share their processes and successes in using the fund for salmon recovery, to showcase a range of PCSRF-funded projects, and to discuss possibilities for better coordination and consistency in monitoring project outcomes. Presentations from other major salmon recovery efforts provided additional background and context.

The first day of the workshop opened with welcoming remarks from Dr. William Hogarth, Assistant Administrator for Fisheries, and Robert Lohn, Northwest Regional Administrator for NOAA Fisheries. The balance of the day offered a series of presentations on a wide range of projects funded by the PCSRF. William Ruckelshaus, Chair of the Washington Salmon Recovery Funding Board, opened this "showcase" section of the workshop. Among the 13 diverse projects highlighted were those completed or underway by 10 Tribes from coastal northern California, the Oregon coast, Columbia Basin, Puget Sound, and Olympic Peninsula, and initiated by the states of Alaska, Washington and California. Copies of these showcase presentations are available on the NOAA Fisheries Northwest Region website at http://www.nwr.noaa.gov/pcsrw/2002_workshop.html .

The second day of the workshop was devoted to presentations on decision-making processes of Tribes and states in matching funds with projects. It had an extended afternoon discussion on monitoring consistency and coordination. Joe Scordino, NOAA Fisheries Northwest Deputy Regional Administrator, provided opening comments for both the morning and afternoon sessions. The States of Alaska, Washington, Oregon and California described their processes for project planning, selection and prioritization, as did the Northwest Indian Fisheries Commission and the Columbia River Inter-Tribal Fish Commission. The Northwest Power Planning Council described its processes guiding salmon recovery investments, providing a contrast to PCSRF efforts by illustrating a different decision-making process via a different funding source.

The afternoon monitoring session defined the potential and need for establishing common frameworks for monitoring PCSRF investments in salmon recovery. Speakers from the states of Oregon and Washington, the Northwest Power Planning Council, and the NOAA Fisheries Northwest Fisheries Science Center described current approaches. These presentations were followed by a group discussion on monitoring needs, which was facilitated by For the Sake of the Salmon and Watershed Initiatives.

The third day opened with a continuation of the facilitated monitoring group discussion from the previous afternoon. At the conclusion of this discussion, workshop participants interested in further discussion separated into two small groups. One addressed reporting needs and the other addressed scientific and technical aspects of monitoring. The balance of the third day was taken up by six small-group discussions, including discussing ideas of interest from earlier workshop presentations, outlining opportunities for improving the administration and use of the PCSRF, salmon recovery planning, salmon recovery project prioritization, and hatcheries and recovery.

The last afternoon brought participants back together, with each break-out group providing a brief report to the full group. These reports are available on the NOAA Fisheries-NWR website noted above. A post-workshop executive roundtable was convened to allow key tribal and state leaders to discuss pending legislation and the future of the PCSRF.