Section 2 - Summary of Fish and Wildlife Plans in the Columbia River Basin

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2. Summary of Fish and Wildlife Plans in the Columbia River Basin

Section 2 of the Multi-Year Implementation Plan contains summaries of the various policies and plans that have been developed both voluntarily and under statutory authorities over the past several decades. The majority of these plans were developed as a result of the drastic decline in Pacific Northwest salmon and steelhead populations since the mid 1970s. They attempt, through various frameworks, to reverse the trend. The planning team is using these plans and policies to try to find common areas of agreement and measures that can be implemented in the near term.

Specifically, this section describes the scope, objectives, framework, and status of policies and plans that affect fish and wildlife activities. The descriptions also include the roles and responsibilities of the organizations that developed the plans and/or have the authorities to implement the plans.

2.1 Proposed Recovery Plan for Snake River Salmon, Required under the Endangered Species Act and Prepared by the National Marine Fisheries Service.

Columbia River salmon were first considered for listing as threatened or endangered species under the Endangered Species Act (ESA) in 1979. Upper Columbia River chinook had declined to record low numbers, and existing management and operations were generally considered inadequate to protect and restore them. Listing Columbia River salmon under the ESA was avoided after Congress passed the Northwest Power Act in 1980, which included a fish and wildlife program and provisions to protect and restore Columbia Basin anadromous fishes.

Declining numbers again in the 1980s led to the listing of Snake River salmon as threatened and endangered species and the development of a formal recovery plan under the ESA. The Snake River Salmon Recovery Team (SRSRT), composed of seven independent scientists, first submitted their recommendations for Snake River salmon recovery to the National Marine Fisheries Service (NMFS). Considering these recommendations and information and guidance developed in the region, NMFS released the Proposed Recovery Plan for Snake River Salmon (Recovery Plan), as required under the ESA, in March 1995. Since that time, Biological Opinions, permitting for nonfederal actions, and habitat conservation planning have followed in the footsteps of the Recovery Plan, incorporating policy guidance and many tasks included in the Recovery Plan. In a sense, the Recovery Plan is being implemented, because, NMFS believes, it provides some context and rationale for the different actions that are necessary and is based on the best scientific information available. NMFS also believes the Snake River salmon would slip closer to extinction if implementation awaited the development of additional information and the completion of a final recovery plan.

The Recovery Plan's course is based on a clear set of objectives, as follows: (1) improve Columbia Basin environmental health; (2) increase self-sustaining natural salmon populations to levels where protections under the ESA are unnecessary; (3) avoid declines in other fish and wildlife species; and (4) restore salmon stocks to levels sufficient to sustain Native American cultures and the lifestyles and economies important to the Pacific Northwest and the nation.

The Recovery Plan calls for immediate action, not extended studies before any measures are implemented. Tasks are prioritized to first treat those factors most responsible for salmon declines, accompanied by focused analysis to add, delete, or refine tasks as necessary. This strategy of action and evaluation ensures progress and, NMFS believes, is the most effective approach to salmon recovery.

The Recovery Plan's strategy acknowledges the broad scope of factors that affect salmon survival, and each of the conservation strategies includes comprehensive treatment of these different factors to improve Columbia Basin environmental health and achieve sustained salmon recovery.

The Recovery Plan states that construction and operation of the Federal Columbia River Power System is a major reason why Snake River salmon are threatened or endangered with extinction. Development of the Columbia Basin has dramatically and permanently altered mainstem environments of the Columbia and Snake rivers. The Recovery Plan calls for immediate improvements to approximate river conditions under which salmon stocks evolved and prospered; use of transportation, particularly when river conditions are poor and survivals are low; and major structural changes to reduce mortality at each of the thirteen mainstem dams that juvenile and adult fish still must pass. Winter reservoir operations are first changed so that water is available to restore more normal spring and summer runoff conditions. When juvenile fish migrations begin each spring, an inseason management process decides on flow augmentation, spill, project operations, and transportation to optimize the survival of juvenile and adult fishes.

Few fully functioning aquatic systems now remain in the Columbia Basin, and in many areas the quality, quantity, and distribution of spawning and rearing habitats are limiting salmon survival. The SRSRT recommended an immediate moratorium on any resource exploitation activities under federal agency jurisdiction that might measurably degrade salmon spawning and rearing habitats. The Recovery Plan calls for landscape-scale approaches, first to protect, expand, and reconnect fragmented high quality habitats, and then to restore degraded habitats important to fish and wildlife species. Ecosystem-based management is lacking, however. Ecosystem-based management would consider entire watersheds and river subbasins, and would ensure that the physical, biological, and chemical processes and conditions necessary to support productive salmon habitat exist in the interior Columbia Basin. PACFISH is identified as the interim tool for managing habitat on federal lands until geographically specific guidance for ecosystem management is available. The Interior Columbia Basin Ecosystem Management Project (ICBEMP) was established to provide that guidance. The Recovery Plan provided ecological goals and important management measures for incorporation into alternatives under development by the ICBEMP. This guidance was designed to protect and restore not just salmon, but a wide variety of fish and wildlife species. The ICBEMP is expected to identify biologically credible land management alternatives that restore fully functioning aquatic systems on federal lands and that satisfy salmon conservation objectives under the ESA.

Nonfederal lands constitute approximately 35 percent of the Snake River Basin important to salmon, and thus an integrated federal and nonfederal approach to ecosystem management is crucial to salmon recovery. Land management across federal and nonfederal ownerships should be

designed to maintain (where adequate) and restore (where inadequate) ecosystem processes and functions consistent with the ecological goals identified in the Recovery Plan. The Recovery Plan provides various planning mechanisms, opportunities for technical assistance, and incentives to support habitat conservation efforts on nonfederal lands.

According to the Recovery Plan, stock preservation must be the first priority of harvest management, biological objectives must be established for important salmon stocks or in some cases Evolutionarily Significant Units, and domestic and international parties must be held accountable for meeting or exceeding these objectives. The Recovery Plan calls on existing jurisdictions and established management processes to negotiate necessary changes in harvest management practices and resulting regulations to achieve these conservation priorities and objectives. The Recovery Plan, for example, challenges the Pacific Salmon Commission to immediately implement measures judged likely to achieve coast-wide chinook salmon rebuilding objectives that were established and agreed to in 1984. The Recovery Plan proceeds from fundamental conservation principles to strategies and measures that support both treaty and non-tribal salmon harvest. Recreational, commercial, and Indian fisheries are integral parts of Pacific Northwest culture and the region's natural heritage, and the recovery plan seeks to perpetuate these important values into the future.

Artificial propagation to sustain or increase salmon and steelhead returns to the Columbia Basin began more than 100 years ago, and the release of juvenile fishes into the basin has expanded now to approximate 200 million fish annually. Columbia Basin hatcheries have operated primarily to replace production lost from dam construction and continued hydropower operations; hatcheries have supported ocean and inriver sport fisheries and commercial and tribal fisheries important to the Pacific Northwest. This role of replacing lost natural production is important. The Recovery Plan identifies specific measures to improve the survival of hatchery fish and increase adult returns while avoiding adverse interactions between natural and hatchery fishes. For example, the Recovery Plan identifies protocols for increasing the quality and thus the survival of hatchery fish and provides guidelines for broodstock selection and release strategies to preserve the characteristic stock structure proven essential for long-term recovery and to minimize unnecessary competition for available food and habitat. These approaches are departures from past hatchery practices and are now widely advocated in other conservation strategies.

There is little experience in using artificial propagation to sustain or enhance natural salmon populations; consequently, there is substantial uncertainty over its role in conserving the natural populations that are the foundation for recovery. The Recovery Plan concurs with the SRSRT recommendation that there is insufficient evidence to rely on artificial propagation as a prime tool to help achieve recovery. Artificial propagation programs should proceed, however, where the efficacy of artificial propagation can be better understood and where a salmon population may otherwise face imminent extinction. This approach is generally shared by other conservation strategies, and the Recovery Plan supports existing programs throughout the Columbia Basin that include sufficient monitoring and evaluation. Also identified in the Recovery Plan are new opportunities that range from variations on traditional propagation practices to captive broodstock programs where the propagation of particular populations could prove helpful.

An important component of the recovery planning process has been the effort to estimate the economic consequences of implementing different conservation strategies. The ESA requires careful consideration of the time and cost of different recovery alternatives before deciding on a particular recovery strategy. In 1994, stakeholders from throughout the region were asked to participate in estimating the economic costs and benefits of implementing the SRT's recommendations. They estimated costs ranging as high as $250 million annually (Huppert and Fluharty, 1995). The proposed recovery plan took these estimates into account. Accompanying the proposed plan were estimates of each federal agency's costs of implementation, which totaled approximately $166 million annually. At this point stakeholders were asked to help estimate the broader economic consequences of implementing the proposed ESA recovery plan, so that this information could be taken into account in producing a final plan. This time, the economic consequences of implementing the proposed recovery plan (including agency budgetary costs for implementation) were estimated to range between ___ and ___ annually (Huppert and Fluharty, 1996).

2.2 The Columbia River Basin Fish and Wildlife Program

"The Council shall promptly develop and adopt...a program to protect, mitigate, and enhance fish and wildlife, including related spawning grounds and habitat, on the Columbia River and its tributaries... affected by the development, operation and management of [hydroelectric projects] while assuring the Pacific Northwest an adequate, efficient, economical, and reliable power supply."

--Pacific Northwest Electric Power Planning and Conservation Act of 1980

The Northwest Power Planning Council was created in part to give the region an opportunity to design and implement a program for protection of all anadromous and resident fish and wildlife in the Columbia Basin, rather than having narrowly focused recovery programs developed in Washington, D.C., or in federal court.

In addition, the region has other legal obligations that must be met regarding fish and wildlife, and that are complemented by the Council's program. These include tribal treaty fishing rights, Executive Order tribal rights, salmon rebuilding obligations of the Pacific Salmon Treaty with Canada, and requirements of the federal Clean Water Act. These necessitate measures beyond those to remove listed salmon stocks from the Endangered Species list.

The Columbia River Basin Fish and Wildlife Program (Fish and Wildlife Program) is the first truly comprehensive strategy for fish and wildlife in the Columbia River Basin. It is a long-range plan to amend river operations, increase productivity, repair habitat, and refine harvests. It is designed to balance competing river uses while strengthening and rebuilding fish runs throughout the basin. The Council's aim is to make future Endangered Species Act petitions unnecessary and ultimately to produce healthy and harvestable populations of salmon and steelhead, as well as to protect resident fish and wildlife.

The Council system goal is a healthy Columbia Basin, one that supports both human settlement and the long-term sustainability of native fish and wildlife species in native habitats where

possible. At the same time the program recognizes that where impacts have irrevocably changed the ecosystem, we must protect and enhance the ecosystem that remains. To implement this goal, the program deals with the Columbia Basin as a system; it will protect, mitigate, and enhance fish and wildlife while assuring an adequate, efficient, economical, and reliable power supply; and it will be consistent with the activities of the fish and wildlife agencies and tribes.

Regarding resident fish -- those that don't migrate to the ocean during their lives -- this program recognizes that these fish suffered from many of the same impacts as salmon. In 1994,. for example, the Kootenai River white sturgeon was added to the federal endangered species list. The Council's goal for resident fish is to recover and preserve the health of populations that were injured by the hydropower system, where feasible. If it is not feasible to mitigate losses where they occurred, then these losses will be mitigated elsewhere in the basin.

The Council's goal for wildlife is similar. Some flood plain and riparian habitats that are important to wildlife were inundated when reservoirs behind the dams filled with water. A number of other dam-related impacts altered land and streamside areas where wild birds and animals live. The goal for wildlife in this program is to achieve and sustain levels of habitat and species productivity that fully mitigate wildlife losses resulting from the construction of dams.

Several key points guide the Council Fish and Wildlife Program:

System approach: In developing the Columbia River Basin Fish and Wildlife Program, the Council must deal with the Columbia River and its tributaries as a system.

Regional power supply: While the fish and wildlife program must "protect, mitigate and enhance fish and wildlife affected by the development, operation and management" of Columbia River Basin hydropower facilities, it must do so in a way that ensures the region "an adequate, efficient, economical and reliable power supply."

Federal responsibilities: The Northwest Power Act explicitly gives Bonneville the authority and responsibility to use its legal and financial resources "to protect, mitigate, and enhance fish and wildlife to the extent affected by the development and operation of any hydroelectric project of the Columbia River and its tributaries in a manner consistent with ... the program adopted by the Council ... and the purposes of this Act." The Act further requires Bonneville and the federal hydropower project operators and regulators to take the program into account to the fullest extent practicable at each relevant stage of their decision-making processes.

Public involvement: The Council is required to consult with a variety of groups in the Northwest and to maintain comprehensive programs for public participation.

Fishery management: The region's fish and wildlife agencies and Indian tribes play a special role in the program. The program must complement the agencies' and tribes' existing and future activities, and also must be consistent with the legal rights of Columbia Basin tribes.

Best available scientific knowledge: In considering fish and wildlife recommendations, the Act requires the Council to rely on the best available scientific knowledge. Because that knowledge often is incomplete, future research, particularly regarding salmon, should focus on critical uncertainties. The region must take pains to monitor actions and make adjustments where advisable.

Lowest-cost alternatives: Where equally effective means of achieving the same sound biological objective exist, the Council chooses the alternative with the lowest economic cost. The Council is committed to finding ways to do such analysis. In addition, the Council expects that Bonneville will do additional work on cost-effectiveness in its implementation of habitat measures.

River flows: The Act specifically recognizes that salmon depend on "suitable environmental conditions substantially obtainable from the management and operation" of power generating facilities of the Columbia River Basin. The Council is directed to adopt measures to "provide flows of sufficient quality and quantity between such facilities to improve production, migration and survival of such fish as necessary to meet sound biological objectives."

Equitable treatment: The act requires federal implementing agencies to manage and operate hydropower facilities to provide "equitable treatment for fish and wildlife with the other purposes for which such system and facilities are managed and operated." Therefore, the council's determinations regarding salmon and fish and wildlife survival in the main bodies of the Columbia and Snake rivers, where the major federal dams are located, aim to meet the needs of salmon with a level of certainty comparable to that accorded the other operational purposes.

The Council adopted its first Columbia River Basin Fish and Wildlife Program in 1982. The program was amended in 1984, 1987, 1991-1993, 1994, and 1995. The 1994 Columbia River Basin Fish and Wildlife Program supersedes previous versions of the program and was amended in 1995 to include additional resident fish and wildlife measures.

2.3 *Wy-Kan-Ush-Mi Wa-Kish-Wit*--Spirit of the Salmon: The Columbia River Anadromous Fish Restoration Plan of the Nez Perce, Umatilla, Warm Springs, and Yakama Tribes

Scope: The Spirit of the Salmon plan covers the following fish that spawn in areas above Bonneville Dam: chinook, sockeye, steelhead, coho, and chum salmon; Pacific lamprey; and white sturgeon. The geographic scope of the plan extends to the Columbia River Basin and Pacific ocean regions where these fish migrate and wherever activities occur that directly affect them.

Objectives: The plan's objectives are to halt the decline of salmon, lamprey, and sturgeon populations above Bonneville Dam within seven years. To rebuild salmon populations to annual run sizes of four million above Bonneville Dam within 25 years in a manner that supports tribal ceremonial, subsistence, and commercial harvests. To increase lamprey and sturgeon to naturally sustaining levels within 25 years in a manner that supports tribal harvests. To achieve these

objectives, the plan emphasizes strategies that rely on natural production and healthy river systems.

Framework: The first volume of the two-volume plan sets out 13 scientific hypotheses and the recommended actions associated with each, along with 10 proposals for institutional change. The second volume contains subbasin-by-subbasin return goals and the restoration and watershed actions that must be undertaken to achieve them.

The technical recommendations, which are aimed at increasing survival at each stage of the salmon's life cycle, are presented as scientific hypotheses that summarize various restoration problems. Individually, they propose near- and long-term actions, identify expected results, and name the institutional and decisional processes required to carry out the recommended actions.

The plan's recommendations are designed to be carried out using an adaptive management strategy: Monitor and evaluate the actions taken and change the actions, if indicated.

Status of Plan: The Nez Perce, Warm Spring, Umatilla, and Yakama tribal governments have officially approved *Wy-Kan-Ush-Mi Wa-Kish-Wit.* The tribes are now seeking to implement salmon restoration in conjunction with the basin's other sovereigns--the states, other tribes, and the federal government--and in cooperation with their neighbors throughout the basin's local watersheds and with all citizens of the Northwest.

Roles and Responsibilities: The tribes are co-managers of the salmon resource pursuant to their inherent sovereignty and their 1855 treaty rights as interpreted by federal court decisions, including *U.S. v. Oregon* and *U.S. v. Washington,* and as ordered by the federal court in the *U. S. v. Oregon* Columbia River Fish Management Plan. The Pacific Northwest Electric Power Planning and Conservation Act of 1980 recognizes the tribes' treaty-reserved rights and responsibilities, and a 1996 federal Memorandum of Agreement calls for coordination of fish and wildlife mitigation with Columbia Basin tribes.

The four tribes have charged their fisheries departments and the Columbia River Inter-Tribal Fish Commission with the responsibility of providing the technical expertise and coordination necessary to carry out the tribal salmon restoration plan.

2.4 ISG Report

The Northwest Power Planning Council, through the 1994 amendment process, called upon the Bonneville Power Administration to fund the Independent Scientific Group (now called the Independent Scientific Advisory Board) to conduct a biennial review of the science underlying salmon and steelhead recovery efforts and Columbia River Basin ecosystem health. The Council's objective was to provide the region clear and authoritative analysis conducted by impartial experts.

The Council asked the ISG/ISAB to develop a conceptual foundation for the Fish and Wildlife Program, to provide an overall set of scientific principles and assumptions on which the program

and fish and wildlife management activities could be based and against which they could be evaluated. In the review of the Fish and Wildlife Program, the scientists analyzed the general assumptions that seem to determine the direction of program activities. The most fundamental assumption appears to be that natural ecological processes that result in a healthy salmon population can be circumvented, simplified, or controlled by humans.

The report suggests a slightly different conceptual foundation than contained in the Fish and Wildlife Program. It is designed to form a framework into which recovery measures can be integrated, when they are appropriate. It can provide a template against which recovery actions can be measured and evaluated. The scientists treat the Columbia River and its tributaries as both a natural and a cultural system. A natural-cultural ecosystem encompasses all the ecological and social processes that link organisms, including humans, with their environments. This approach integrates the habitat of salmon and other wildlife, as well as human habitat, with land use and other cultural developments. There are three elements of this conceptual foundation:

1. Restoration of Columbia River salmon must address the entire natural and cultural ecosystem, which encompasses the continuum of freshwater, estuarine, and ocean habitats where salmon complete their life histories. This includes human developments as well as natural habitats.

2. Sustained salmon productivity requires a network of complex and interconnected habitats, which are created, altered, and maintained by natural physical processes in freshwater, estuary and ocean. These diverse and high-quality habitats are crucial for salmon spawning, rearing, migration, maintenance of food webs, and predator avoidance.

3. Life history diversity, genetic diversity, and metapopulation organization are ways salmon adapt to their complex and connected habitats. This biodiversity and its organization contribute to the ability of salmon to cope with the environmental variation that is typical of freshwater and saltwater environments.

The report concludes that the key to salmon productivity in the future will be the degree to which normative ecosystem conditions are reintroduced into the Columbia River Basin. In order to return to normative conditions, the report recommends the following:

1. Recognize that salmon in the Basin exist as collections of locally adapted populations organized into aggregates of core and satellite populations known as metapopulations. To increase productivity, management decisions must emphasize life history and population diversity. That diversity will require protection for remaining core populations, and restoration and reconnection of potential core habitats at strategic areas within the basin.

2. Protect and restore freshwater habitat for all life history stages, with a focus on key Columbia River and tributary reaches and lakes.

3. Manage stocks with a more complete understanding of migratory behavior and the limitations that migratory behavior could place on river operations.

4. Reduce sources of mortality throughout the salmonid ecosystem.

5. Current and future salmon recovery measures should correspond to the normative ecosystem concept and should be evaluated for their effectiveness in meeting stated objectives.

6. Recognize that estuary and ocean dynamics are important regulators of the patterns of salmon productivity.

7. Reevaluate the concept of salmon reserves as a means of protecting core populations and potential core population habitat.

2.5 U.S. Fish and Wildlife Service Biological Opinion and Draft Recovery Plan for Kootenai River White Sturgeon

Scope: On March 1, 1995, the U.S. Fish and Wildlife Service (FWS) issued a biological opinion on the operation of the Federal Columbia River Power System to the Army Corps of Engineers (lead agency), Bonneville Power Administration, and Bureau of Reclamation. In part, this opinion provides conservation recommendations and reasonable and prudent alternatives for storage and release of water from Libby Dam, Montana, for stimulating sturgeon spawning, and for incubation in lower Kootenai River within Idaho.

Objective: The objective of the May 1, 1995, biological opinion is to begin recovery of sturgeon in their natural habitats, the lower Kootenai River in Idaho and Montana, and Kootenay Lake, British Columbia. Only 15 naturally recruited sturgeon have been documented since 1975, which coincides with the commencement of operation of Libby Dam.

Framework: Reasonable and prudent alternatives in this biological opinion address 1) flows in the lower Kootenai River for staging, spawning and larval incubation; 2) the shape of the semi-artificial hydrograph in the Bonners Ferry, Idaho, reach of the Kootenai River during the spawning/incubation season; 3) timing regulated river flows; 4) water temperature through selective withdrawal system; 5) spawning substrate availability and use; 6) storage of water in fall and winter to achieve the above; and 7) recognition of public safety and other natural resources within the connected aquatic ecosystem(s). These variables are being systematically evaluated as water is available and flood constraints allow.

Status of Plans and Reports: The March 1, 1995, biological opinion covers Libby Dam operations through 1998. However, as new information becomes available, recommendations are promptly changed to expedite recovery. Adaptive management is anticipated to continue in subsequent years.

Agency Roles: Consultation occurs primarily between the U.S. Army Corps of Engineers and the Fish and Wildlife Service. It should be recognized that the Canadian entities, the State of Montana, Bonneville Power Administration, and others are involved to varying degrees and their cooperation is essential to recovery.

Draft Recovery Plan: The Kootenai River white sturgeon draft recovery plan was completed on July 2, 1996, and the period for public comment closed on September 30, 1996. The final recovery plan is scheduled for completion in March, 1997. The draft plan calls for implementing various conservation measures to prevent extinction and to re-establish successful natural recruitment to the Kootenai River population of white sturgeon. Proposed recovery actions include scheduled releases from Libby Dam to provide additional Kootenai River flows to re-establish natural recruitment, and conservation aquaculture, such as hatchery propagation, over the next 10 years to prevent extinction. The ultimate goal is to provide suitable habitat conditions to ensure a self-sustaining white sturgeon population in the Kootenai River Basin so that the fish can be removed from the federal endangered and threatened species list.

2.6 Lower Snake River Compensation Plan Program

The Lower Snake River Fish and Wildlife Compensation Plan (LSRCP) was authorized by the Water Resources Development Act of 1976. The fisheries portion of the LSRCP was designed to mitigate for the losses of salmon, steelhead and rainbow trout caused by the four federal dams on the lower Snake River. The authorized fish production program was composed of 23 fish hatcheries and associated satellite facilities (acclimation ponds, fish taps, adult holding ponds, and a fish disease lab) constructed by the U.S. Army Corps of engineers at a cost of nearly $200 million. Today's replacement costs would be nearly double this figure.

When the LSRCP was developed and authorized, the fishery managers voiced their preference for the U.S. Fish and Wildlife Service (FWS) to administer and fund the operations and maintenance of the fish propagation program. The FWS was given the responsibility and now directly funds all operation, maintenance, and evaluation costs, with BPA reimbursing the U.S. Treasury for all but about 17 percent of resident trout mitigation. The BPA programs its estimates of LSRCP costs into its power rates and collects the revenues necessary to repay the U.S. Treasury for all LSRCP costs plus interest at the end of each fiscal year.

The LSRCP Program is administered by the FWS in cooperation with the state fish and game agencies in Washington, Oregon, and Idaho and the Nez Perce Tribe, Confederated Tribes of the Umatilla Indian Reservation, and Shoshone-Bannock Tribes of the Fort Hall Indian Reservation. The LSRCP has tried to ensure that all relevant parties play a significant role in the program by directly funding each Snake River basin state fish and game agency and tribe for its cooperative role and activities related to the Compensation Plan. As a result, the states and tribes operate most fish hatcheries and related facilities and conduct nearly all hatchery evaluation programs. The FWS operates and evaluates the remaining facilities.

The LSCRP objectives, as defined in the authorized plan, are the following:

1. Restore the salmon and steelhead trout runs of the Snake River Basin that have been diminished by construction and operation of four dams of the Lower Snake River Project located in Washington State.

2. Achieve average adult returns of 18,300 fall chinook salmon, 58,700 spring and summer chinook salmon, and 55,100 steelhead trout to the Snake River Basin to compensate for losses caused by four Lower Snake River dams.

3. Ensure the most effective use of federal funds by federal and State agencies and Native American tribes that operate and maintain lower Snake River mitigation and restoration hatcheries and conduct hatchery evaluation programs.

4. Mitigate for the loss of nonanadromous fishery resources in the lower Snake River of Washington and Idaho by stocking 93,000 pounds of trout annually.

LSRCP facilities have produced an average of approximately 15,000,000 salmon, steelhead and rainbow trout weighing approximately 1,800,000 pounds. Currently, the program's operations and evaluations are undergoing some changes to assist in the conservation of listed species and to ensure compliance with the Endangered Species Act.

LSRCP Authorizations: 16 U.S.C.661-666, Fish and Wildlife Coordination Act; 90 Stat. 2917, Water Resources Development Act of 1976 Public Law 94-587; 16 U.S.C. 838 et seq., The Federal Columbia River Transmission System Act

2.7 The Eastside EIS and the Upper Columbia River Basin EIS

The Eastside EIS and Upper Columbia River Basin EIS represent a U.S. Forest Service (USFS) and Bureau of Land Management (BLM) effort to develop a state-of-the-art management strategy for their respective lands in the interior Columbia Basin and portions of the Klamath and Great Basins. The strategy will be broad-scale, scientifically sound, ecosystem-based, and developed in cooperation with government agencies, tribes, and the public. It will provide guidance for the next 10 to 15 years, with the goal of having healthy, sustainable ecosystems 50 to 100 years from now. Driving the design of the strategy are two needs: 1) to restore and maintain long-term ecosystem health and integrity, and 2) to support, within the capacity of the land, the economic and/or social needs of people, cultures, and communities, and provide sustainable and predictable levels of products and services from FS and BLM lands.

The FS and BLM are working in a science/management partnership, to restore degraded ecosystems, hold the line on future degradation, and meet people's needs for ecosystem goods and services in an ecologically sustainable way. A big part of the effort is maintaining open ties with the public. Public involvement has assisted the federal agencies in shaping the EIS issues; the proposed actions, and the purpose and need statements, as well as the themes and goals of the "action" alternatives (those that propose something other than current management practices). The goals of the five action alternatives are:

Goal 1. Sustain and where necessary restore the health of the forest, rangeland, aquatic, and riparian ecosystems.

Goal 2. Provide a predictable, sustained flow of economic benefits within the capabilities of the ecosystem.

Goal 3. Provide diverse recreational and educational opportunities within the capability of the ecosystem.

Goal 4. Contribute to the recovery and delisting of threatened and endangered species.

Goal 5. Manage natural resources consistent with treaty and trust responsibilities to Indian Tribes.

2.8 *United States v. Oregon* Columbia River Fish Management Plan

Scope: The Columbia River Fish Management Plan (CRFMP) is a 1988 harvest and production agreement ordered by the federal court in the case of *United States v. Oregon* (Case No. 68-513). The parties to the agreement are the United States, the States of Washington, Oregon and Idaho, the Nez Perce, Warm Springs, Umatilla, and Yakama tribes, and, for certain purposes, the Shoshone-Bannock tribe.

Even though the 1969 ruling in *Sohappy v. Smith/U.S. v. Oregon* affirmed the tribes' fishing rights at all usual and accustomed fishing places whether on or off tribal reservations, conflicts with the states over these rights led to nearly two decades of litigation that were, in part, resolved by the CRFMP.

Objectives: The plan provides a framework for the parties to exercise their sovereign powers in a coordinated and systematic manner to rebuild weak runs and to fairly allocate the harvestable share of upper river runs between Indian and non-Indian fisheries in the ocean and Columbia River Basin.

Framework: The plan is based on the biological circumstances of Columbia River Basin fish runs and stocks and the particular treaties, laws, and judicial decisions applicable to the Columbia River system. The CRFMP provides management guidelines, harvest allocation requirements, fish production measures, institutional arrangements, and a dispute resolution procedure.

Status of the Plan: The plan's provisions terminate on December 31, 1998, unless extended by unanimous agreement of the parties or ordered by the court.

Roles and Responsibilities: Proposed actions under the CRFMP are analyzed by two scientific bodies, the Technical Advisory Committee (TAC) and the Production Advisory Committee (PAC). Both committees are composed of qualified fishery biologists, each representing one of the CRFMP parties. The TAC and PAC attempt to achieve consensus on the biological and technical issues. A Policy Committee, made up of representatives of the CRFMP parties, was established to facilitate cooperative action with regard to fishing regulations and coordination of fisheries management and production.

2.9 Upper Columbia United Tribes Implementation Plan

In 1995, the member Tribes of the Upper Columbia United Tribes (UCUT) (Coeur d'Alene Tribe, Kalispel Tribe, Kootenai Tribe of Idaho, and Spokane Tribe), in conjunctlon with the Colville Confederated Tribes, submitted a recommendation to the Northwest Power Planning Council

(NPPC) during the Council's Phase 4 Resident Fish and Wildlife Amendment Process for its Columbia River Basin Fish and Wildlife Program. The recommendation was designed as a resident fish substitution measure to partially mitigate the loss of anadromous salmon above Grand Coulee Dam. Construction at Grand Coulee Dam blocked salmon runs into the upriver Tribes' territory beginning in 1939, and upriver losses remained uncompensated until NPPC developed the FWP as directed by the United States Congress in the Northwest Power Planning and Conservatlon Act (PI 96-501, 1980).

All of the UCUT Tribes fished for salmon at sites above Grand Coulee on the Spokane River and on the upper Columbia River at Kettle Falls. Harvests numbered in hundreds of thousands of flsh before development occurred in the Basin. The harvest above Grand Coulee by the ancestors of the Coeur d'Alene, Kalispel, Kootenai, Spokane, and Colville bands residing above Grand Coulee ranged from 17.1 million to 21.3 pounds total biomass. In some cases, when reservation boundaries were established, the office of the Commissioner for Indian Affairs (CIA) recommended that the boundary be established on the far bank of a river that bordered the reservation so that the Tribe would retain regulatory control of its "valuable and ancient fisheries" on that river. For example, when the Spokane Reservation was established on the north bank of the Spokane River, the CIA office recommended establishing the southern boundary on the south bank of the Spokane River in order to protect the Tribe's fishery on that river, and President Hayes followed this recommendation in writing the Executive Order that established the Spokane Indian Reservation, which was later ratified by the United States Congress.

Prior to the Power Council's FWP, the only mitigation that had occurred to replace fish losses caused by the Grand Coulee blockage was an attempt, conducted in the late 1930s and early 1940s, to capture fish that were bound for home spawning areas above Grand Coulee as they passed through a fish ladder at Rock Island Dam. Fish so captured were then transferred to hatcheries that had been constructed on the Wenatchee (Icicle Creek), Entiat, and Methow Rivers in an attempt to reprogram the Upper Columbia and Spokane River fish to return to those sites in future years. Although downriver salmon harvesters may have benefited from this relocation program, which is by no means certain since there has been debate about its efficacy, the UCUT Tribes were effectively closed out of any future salmon harvest because all of the hatcheries were located downstream from Grand Coulee outside of the Tribes' traditional fishing areas. Thus, their loss constitutes the longest unmitigated fish loss in the Columbia River Basin.

In their 1995 amendment recommendation to NPPC, the UCUT Tribes:

(1) Estimated the number and biomass of salmon formerly harvested by UCUT Member Tribes from the area above Grand Coulee Dam that was blocked by construction of Grand Coulee Dam.

(2) Recommended 27 measures to partially replace these losses with resident fish according to a resident fish substitution policy (RFSP) articulated by NPPC in its 1987 FWP.[2]

[2] The RFSP allowed resident fish to be substituted for anadromous fish in areas where salmon runs were permanently blocked by federal hydroprojects. The NPPC adopted this policy because

The recommended measures were scrutinized by NPPC, subjected to two tiers of public review, and adopted by NPPC in its September 13, 1995, version of the FWP (see Sections 10.3E.3, 10 4B to 10 4B.5 and 10.8B to 10.8B.25). Some of the measures included enhancing rainbow trout and kokanee in Lake Roosevelt via hatchery supplementation; enhancing passage and tributary habitat for adfluvial rainbow trout in Lake Roosevelt tributaries; enhancing largemouth bass in the Box Canyon Reservoir of the Pend Oreille River via hatchery supplementation and enhancing habitat to improve overwinter survival of age 0 fish; enhancing native cutthroat trout and bull trout in Pend Oreille River tributaries; enhancing cutthroat trout and bull trout in tributaries of Coeur d'Alene Lake on the Coeur d'Alene Reservation (including a watershed project on Lake Creek); several measures to promote recovery of endangered Kootenai River sturgeon, as well as an ecosystem investigation of the Kootenai River System; and enhancing trout in lakes on the Colville Reservation via supplementation.

The adopted measures were based upon the collective biological objectives of the UCUT Tribes, Colville Confederated Tribes, and Washington Department of Fish and Wildlife to replace anadromous fish losses in the blocked area above Grand Coulee Dam. The biological objectives were primarily numerical targets for harvest and escapement for individual species or specific prescription for fisheries habitat improvements in each tribal area. The numerical targets were based upon the productivity of the environment for supporting those fish, an ecosystem analysis of each UCUT Tribal area, and collection of baseline data that assessed the existing condition of the habitat and identified improvement opportunities. These data were given to NPPC, which subjected them to public review. The biological objectives were approved by NPPC in Section 10.8B (page 10-31 to 10-40) of the Septembor 13, 1995 FWP. The sum of all the biological objectives would produce a biomass of 2.2 million to 2.7 million pounds of fish. Collectively,

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the Tribal fisheries managers convinced it that such a policy was needed to restore the damaged ecosystem in the upper basin and that these restoration efforts should be accorded the same priority as salmon recovery because the rehabilitation of damaged ecosystems had at least as much biological significance and relevance as the single species management efforts that underlie recovery of endangered native species in native habitats. In many cases, upriver ecosystems have been altered beyond recognition from their natural state. Thus, their rehabilitation should be accorded the same priority as restoration of native fish in native habitats, because achievement of both types of activities will result in a functioning ecosystem. In Section 10.1B of the FWP, NPPC specifically noted that because losses above the block at Grand Coulee "have endured mostly unmitigated for more than 50 years, and because in-kind mitigation cannot occur, the Council intends that in any project ranking or selection process, projects satisfying these priorities [i.e., weak but recoverable native stocks and resident fish substitutions in blocked areas] be clearly distinguished from other projects. The distinction between these two highest priorities is a narrow one, applicable only to marginal choices among such projects." Moreover, in Section 10.8B to 10.8B.25, NPPC identified specific time frames by which the Grand Coulee Resident Fish substitution mitigation was to be accomplished. Thus, the UCUT Tribes have a reasonable expectation that their projects will not be delayed and will find it unacceptable if their projects are delayed owing to budget cap constraints.

achievement of the biological objectives would account for 10-13 percent of the lost salmon harvest that formerly occurred above Grand Coulee Dam.

In their 10-year Action Plan, which was included in the UCUT Tribes' amendment, the Tribes developed generalized strategies and a series of specific measures to achieve the biological objectives. Included were time frames and the budget needed to implement these measures. Again, all this material was subjected to NPPC scrutiny and the Council's extensive public review process. When NPPC adopted the proposed measures it also adopted the schedule proposed for starting and completing them. This is reflected in each measure (measures 10.3E.3, 10.4B to 10.4B.5, and 10.8B to 10.8B.25 of the September 13, 1995 FWP). For example, Section 10.8B.3 directs BPA to install a new production well at the Spokane Tribal Hatchery by January 1996 so that more kokanee can be raised to residualized smolt size before release into Lake Roosevelt. Section 10.8B.4 notes that construction of kokanee net pens is to be accomplished at Sherman Creek in 1996. Section 10.8B.12 calls for construction of a largemouth bass hatchery on the Kalispel Reservation by 1996, and Sections 10.8B.20 and 10.8B.21 direct BPA to complete construction of trout ponds and a fish hatchery, begin habitat improvement projects for cutthroat trout, and initiate the Lake Creek Watershed Restoration Project on the Coeur d'Alene Indian Reservation by 1997.

In summary, the UCUT 10-year Action Plan, including biological objectives, generalized strategies for achieving those objectives, specific measures, and the time frames for implementing each measure and accomplishing the biological objectives, are already part of NPPC's FWP. See Sections 10.3E.3, 10.4B to 10.4B.5, and 10.8B to 10.8B.25 of the September 13, 1995 FWP for further description of the UCUT plan.

2.10 The Integrated System Plan

In 1987, the Northwest Power Planning Council established an interim goal for the Columbia Basin Fish and Wildlife Program. That goal is to double current annual salmon and steelhead runs from 2.5 million to 5 million adult fish (measured in returns to the mouth of the Columbia River plus ocean harvest). To determine the best way to achieve the goal, the Council initiated the "system planning" effort, calling upon the basin's fish and wildlife agencies and Indian tribes to develop a systemwide plan. The plan's main goal is to identify strategies for doubling the Columbia Basin's salmon and steelhead runs in a biologically sound and sustainable manner.

The Integrated System Plan is the final product of a three-year planning process. Fundamental to it was the development of 31 salmon and steelhead production plans for the major subbasins in the Columbia Basin. Serving as building blocks for the Integrated System Plan, the subbasin plans contain objectives and alternative strategies for increasing salmon and steelhead production in the respective drainages. These strategies are the activities recommended for implementation in the Integrated System Plan.

The final 1990 subbasin plans, submitted to the Council by the Columbia Basin Fish and Wildlife Authority, will continue to be important sources of information. However, the emphasis shifted to the Integrated System Plan and amending provisions of the plan into the Council's Program for funding and implementation.

It is important to note that the Columbia Basin Fish and Wildlife Authority supported the Council's interim goal of doubling the Columbia Basin's salmon and steelhead runs and the provisions in the Integrated System Plan to achieve that goal. The actions outlined in this plan, however, do not represent final or complete mitigation solutions to impacts caused by hydropower, navigation, irrigation, and other water developments in the Columbia River Basin. Therefore, each agency and tribe remains responsible for addressing mitigation-related actions, beyond those presently identified, for rebuilding and restoring salmon and steelhead resources now identified in the Integrated System Plan.

The Integrated System Plan is organized into four major parts: Part 1 summarizes the system goals, policies, and programs that have guided system planning. Part 2 reviews information within the 31 subbasin plans, which have been through two public comment processes. Part 3 identifies major conflicts in reaching the goal, analyzes harvest and passage issues, and proposes a means to evaluate the genetic risks of certain strategies. Part 4 outlines recommendations for development of amendments to the Columbia River Basin Fish and Wildlife Program, including stocks and areas of emphasis; prioritizes activities to be implemented; summarizes estimated costs, future monitoring and evaluation needs, and the need for future planning and annual review of the Integrated System Plan.

2.11 State Wild Fish Plans

Currently Oregon has adopted a wild fish policy, and Washington is in the process of drafting such a policy. Although these policies are intended to direct state programs, it has been the experience in Oregon that they also attempt to direct tribal programs. The tribes have continued to maintain that as co-managers the states may do as they please to develop their policies, but these policies do not apply to tribal management, just as tribal policies would not apply to state management. States and tribes are attempting to live within each other's management policies without one or the other attempting to dominant.

Oregon Department of Fish and Wildlife (ODFW) Columbia River Regional Fishery Goals, Policies, and Management Concepts

A discussion of ODFW's statutory authority, mission, and overall management goals for Oregon including the Columbia River will be provided. Consistent with OAR 635-07-501, "goal" is defined as "a statement of intent which leads to policy, rules, and operation plans for implementation of a Department program" and "policy" as "mandatory direction or constraints that provide the framework for Department programs."

1. ODFW Mission - established by legislation (ORS 496.012 Wildlife Code and 506.109 Commercial Fishing and Fisheries Code).

2. ODFW Goals - established by legislation (ORS 496.012 and 506.109) and as administrative rules adopted by OFWC (OAR 635-07-510).

3. ODFW Management Policies - adopted by OFWC as administrative rules.
   a. Wild Fish Management Policy (OAR 635-07-525 to 539)

b. Natural Production Policy (OAR 636-07-521 to 524)
c. Wild Fish Gene Resource Conservation Policy (OAR 635-07-536 to 538)
d. Hatchery Fish Gene Resource Conservation Policy (OAR 635-07-540 to 541)
e. Others

4. Management concepts - established by ODFW.
   a. Importance of wild fish
   b. Stock concept
   c. Stock-recruitment concept
   d. Mixed stock fisheries
   e. Target fisheries
   f. Habitat concept
   g. Genetic fitness

ODFW Species and Subbasin Management Goals

ODFW has completed the following species and subbasin plans applicable for management of Oregon's anadromous and resident fish species Columbia River Basin, consistent with OAR 635-07-515, which specifies that "Resources of the state shall be managed according to plans which set forth goals, objectives, and operating principles for management of species, waters, or areas. Such plans are a primary means of implementing Department policies regarding fish management."

<u>For each subbasin/standing water for all species</u>:

- Identify production, harvest, escapement, passage, and habitat goals and provide source (ex: species or subbasin plan; *U.S. v. Oregon*, NPPC Integrated System Plan, etc.).
- Identify areas where goals are lacking or require clarification.
- Evaluate how well goals are being met.
- Identify biological and institutional constraints on measurement of success of goals.

1. ODFW Species Plans:
   a. Steelhead Plan (1995)
   b. Coastal Chinook Plan (1991)
   c. Coho Plan (1982)
   d. Trout Plan (1987)
   e. Warmwater Game Fish Plan (1987)
   f. Sturgeon Management Plan

2. ODFW Columbia River Subbasin Plans:
   1. Malheur River (1990)
   2. McKenzie River (1988)
   c. Willamette subbasins (1992)
   d. Deschutes River draft plan (will be submitted to OFWC for approval in 1996)
   e. Other subbasins specify goals and source (i.e., *U.S. v. Oregon* Production Plans 1987; NPPC Integrated System Plan 1990: etc.)

Idaho Policies

Idaho policies require water to be managed to provide optimum sport fishery benefits and to protect and restore fish habitat and water quality. Wild native populations of resident and anadromous fish will receive priority consideration in management decisions and the decisions will emphasize maintenance of self-sustaining populations of fish. The Department of Fish and Game will oppose any activity that results in significant loss or degradation of habitat capable of supporting self-sustaining fish populations, and will strive to maintain the genetic integrity of wild native stocks of resident fish and naturally managed anadromous fish when using hatchery supplementation. Hatchery-reared fish will be stocked as appropriate to preserve, establish, or reestablish depleted fish populations and to provide angling opportunity to the general public. Factors affecting downstream survival will receive priority attention in anadromous management.

2.12 National Research Council Report - UPSTREAM

The National Research Council, in response to a request from Congress, assembled an expert Committee on Protection and Management of Pacific Northwest Anadromous Salmonids. The Committee was asked to assess the status of the salmon stocks, analyze the causes of declines, and analyze options for intervention. The report, UPSTREAM, is the result of the study.

The Committee recommended rehabilitation of degraded ecosystems and habitats to make it possible for natural processes of reproduction and production to take place. It concluded that two conditions must be met to achieve long-term protection of natural populations of salmon: (a) Management must recognize and protect the genetic diversity of salmon; and (b) any solution to the salmon problem must take the effects of growth in human population and economic activity into account. The Committee stated that its recommendations should be considered on a regional basis and in a comprehensive framework that includes an analysis of their costs, probable effectiveness, and the ability and willingness of various sectors to bear the costs.

2.13 Mid-Columbia Agreements

In an effort to prevent listing of anadromous stocks in the mid-Columbia reach of the river, the tribal, state, and federal fishery managers and the Douglas County, Chelan County, and Grant County public utility districts are preparing Habitat Conservation Plans (HCP) in concert with the existing hatchery supplementation programs. The existing supplementation programs include the Eastbank Hatchery and its tributary satellites, Douglas County Methow Spring Chinook Hatchery and its tributary satellites, and the Grant County Priest Rapids Hatchery facilities. Tributaries in the mid-Columbia where these habitat restoration and hatchery supplementation efforts are directed include the Wenatchee, Entiat, Methow, and Okanogan river systems and, with the Grant County program, the mainstem Columbia river.

At the mainstem dams the HCP will address the passage needs of the juveniles and adults. All salmon species currently or historically affected will be examined and measures developed and implemented for their restoration in the natural habitat.

2.14 Idaho Power Agreements (FERC)

Idaho Power Company is beginning a five-year process to have the Federal Energy Regulatory Commission authorize the relicensing of Brownlee, Hells Canyon, and Oxbow dams on the Snake

River in Idaho. IPC has created a team of representatives from government, Indian tribes, and the private sector to identify desired future conditions and to evaluate opportunities and constraints on hydropower operations. Idaho Power's relicensing application includes four key issues:

1) Aquatic Resources: includes water quality, quantity, and use, and fish and mollusks.
2) Terrestrial Resources: includes wildlife, geology, and botanical and cultural resources.
3) Recreation and Aesthetics.
4) Economics.

2.15 Comprehensive Environmental Assessment

The Comprehensive Environmental Assessment was developed to address the impacts of the hatchery programs on the Columbia River system. This effort was the result of a threat to seek litigation if the BPA did not do an EIS for the tribal fish hatcheries that were being planned under the Power Council's Fish and Wildlife Program. The effort resulted in the development of a draft Programmatic Environmental Impact Statement that is currently being finalized for distribution for public review. Funding was provided primarily by the Bonneville Power Administration, National Marine Fisheries Service, and U.S. Fish and Wildlife Service. The overall intent of the effort is to use the PEIS as an overall document to prevent future need for impact statements and head off possible litigation on some of the existing state and federal hatchery programs such as the Mitchell Act program.

2.16 Mitchell Act

The Mitchell Act was passed in 1938 and amended in 1946. It was intended "...to provide for the conservation of the fishery resources of the Columbia River." The program included many purposes, among them habitat restoration, such as fish screening and passage projects. These restoration measures were necessary to allow the supplementation of the rivers and streams using artificial production, which was also an important component of the Mitchell Act program. Although many of the habitat measures were completed, the main focus of the Mitchell Act during the 1950s and 1960s turned towards using the hatcheries to supply the ocean and lower Columbia River commercial and sport fisheries. Once the emphasis was placed upon the fisheries, monies were often transferred from the habitat restoration efforts to the hatchery program. This shifting resulted in the fisheries industry becoming more and more dependent upon continued funding of the Mitchell Act hatcheries. When Corps of Engineer funding for construction of hatcheries ended in 1961, approximately 25 hatcheries and three rearing ponds had been constructed. Since that time, additional state or power company hatcheries and rearing ponds have been added to the Mitchell Act funding, creating an additional burden on federal funding. In recent years, the federal appropriations for the hatchery program have begun to be reduced, jeopardizing the continuing operation of the hatcheries and ultimately the ocean and lower Columbia River fisheries. It can be expected that the operation of the Mitchell Act program will become more dependent upon the Bonneville Fish and Wildlife program, as was evident in 1996 when the Gnat Creek Hatchery (a recently closed Mitchell Act facility) was reopened using Bonneville funds.

2.17 Integrated Hatchery Operations Team (IHOT)

The Integrated Hatchery Operations Team is a multi-agency group established in the Northwest Power Planning Council's Fish and Wildlife Program. Its members are fishery co-managers from

six tribes, three states, two federal agencies, and seven other entities representing broad interests within the Columbia Basin. IHOT was asked to develop regionally integrated hatchery policies for operating all Columbia Basin anadromous salmonid hatcheries. More than 90 hatcheries in the basin, which are funded, co-managed, and operated by several different entities, produce fish for many different management objectives, including supplementation, restoration, harvest, egg banking, and research.

IHOT produced a policies and procedures manual for these hatcheries, with the purpose of helping to ensure that hatchery operations will be consistent with the regional goal of rebuilding wild and naturally spawning fish runs. This manual provides guidance for the technical operation of hatcheries; it does not set specific production priorities. Production decisions must be provided by fishery co-managers through a negotiated, comprehensive plan that addresses both natural and hatchery production, i.e. the Columbia River Fish Management Plan negotiated under *U.S. v. Oregon.*

2.18 Pacific Salmon Treaty Programs

The U.S. - Canada Pacific Salmon Treaty, which established the Pacific Salmon Commission, was adopted in 1985. It provides for the conservation and equitable allocation of north Pacific salmon stocks originating from Canada and the United States. The treaty was preceded by 14 years of negotiations; its signing was finally caused by a drastic decline of chinook stocks in Southeast Alaska, Canada, and the Pacific Northwest in the 1980s. The treaty's chinook rebuilding program, with a goal of rebuilding naturally spawning chinook stocks coastwide by 1998, is a cornerstone of the treaty and serves as a base for management actions in other salmon fisheries.

Coastwide, funding for Pacific Salmon Treaty programs for FY 1996 was approximately $10.5 million. Much of this funding is directed to programs in coastal areas of Washington and Oregon, Puget Sound, and Alaska. Within the Columbia Basin, Pacific Salmon Treaty funds are utilized to support, among other things, coded wire tagging of juvenile salmon, mark recovery efforts, escapement estimation, stock identification, and analysis of stock abundance. Such programs are coordinated with coded wire tag projects supported with BPA funds (e.g. projects 8201300, 8906500, 8906600, and 8906900 identified under stock assessment). In addition, PATH activities (e.g. 9303701 and 9600800) are dependent on these coordinated marking and stock assessment efforts.

2.19 Northwest Forest Plan

In 1994, the Clinton Administration adopted a Northwest Forest Plan (NFP) that addresses terrestrial and aquatic resource protection needs in the context of land management actions of the U.S. Forest Service and Bureau of Land Management. Although the plan's geographic boundaries extend eastward generally to the crest of the Cascades, portions of the Deschutes, Methow, Okanogan, and Yakima basins are addressed by the plan. For FY 1996, the Rescissions Bill, sometimes referred to as the "Salvage Rider," has mooted substantial provisions of the NFP. Notably, the baseline conditions of the forests, watersheds, streams, and fish populations upon which the NFP was premised have been altered by actions directed in the Salvage Rider. Nonetheless, the commitment to aquatic monitoring associated with the NFP is negligible and virtually no data on instream conditions are being collected as a result. The "Jobs in the Woods"

program is funded and going forward and is providing for watershed restorations actions, primarily in coastal drainages.