



United States Department of the Interior

FISH AND WILDLIFE SERVICE

IN REPLY REFER TO:

MAY 13 2002

Mr. Robert Lohn
Regional Administrator
National Marine Fisheries Service
Northwest Region
7600 Sand Point Way N.E., Bldg. 1
Seattle, Washington 98115

Dear Mr. Lohn:

Enclosed are progress reports on the *Basinwide Salmon Recovery Strategy - Conservation of Columbia Basin Fish* (Salmon Recovery Strategy) for the Fish and Wildlife Service for work completed under the Salmon Recovery Strategy since the plan was completed in December 2000. In FY 2002 the Fish and Wildlife Service received increased funding for implementation of the Salmon Recovery Strategy and the Federal Columbia River Power System biological opinions. The enclosed progress reports incorporate some of this new work but next year's report will provide a summary of progress completed through the end of the fiscal year. In addition, we will continue to work with you and the other members of the Federal Caucus to provide for greater consistency in the measures used to report progress and to improve the reporting format.

Sincerely,

Bill Shake
Special Assistant to the
Regional Director

Enclosures

U.S. Fish and Wildlife Service, Pacific Region
Basinwide Salmon Recovery Strategy
Progress Report on Habitat Conservation and Restoration
in the Columbia River Basin - April 2002

The U.S. Fish and Wildlife Service (FWS) actively promotes the protection, conservation, and restoration of important fish and wildlife habitats throughout the Columbia River Basin. This program is implemented through a proactive approach that focuses on providing habitat planning and expert technical assistance; forming partnerships with private, local, State, Tribal, and Federal agencies for habitat restoration on public and private lands; conserving coastal habitats through partnerships, inventorying and monitoring wetlands; and working with other Federal agencies to ensure infrastructure projects are designed to minimize damage to important habitats.

Overview of Major Projects

The following is a brief summary of the major projects the FWS is currently implementing in the Columbia River Basin in support of the National Marine Fisheries Service (NMFS) Biological Opinion on the Federal Columbia River Power System (FCRPS BO) and the *Conservation of Columbia Basin Fish Plan - Basinwide Salmon Recovery Strategy* (Recovery Strategy).

Develop Recovery Plans - FWS is participating as a member of the Willamette/Lower Columbia River and Interior Columbia Basin Technical Recovery Teams for listed salmon and is helping to develop the biological goals and technical guidance for recovery plans. FWS also is participating in the Northwest Power Planning Council's subbasin planning process which will help define habitat actions to improve the survival of listed salmon, bull trout, and other fish and wildlife.

ESA Streamlined Consultation (Manage Federal Lands to Protect Fish) - The "off-site mitigation" provisions of the FCRPS BO assumed that the Forest Service and Bureau of Land Management implement Forest and BLM Land and Resource Management Plans consistent with PACFISH and INFISH or until the Interior Columbia Basin Ecosystem Management Project is finalized. FWS continued to dedicate existing Section 7 Consultation resources to this action.

Manage avian predation (Restore Estuary Habitat) - The funds will allow continued FWS migratory bird and fisheries technical support to the U.S. Army Corps of Engineers and the Caspian Tern Working Group, and a feasibility assessment of potential alternate tern nesting sites along the Pacific Coast. The feasibility assessment will identify and rank opportunities to develop coastal tern nesting habitat as a means to disperse a segment of the Columbia River estuary tern colony. The Service developed a settlement agreement on the issue of avian predation in the Columbia River estuary. The agreement will allow continued FWS migratory bird and fisheries technical support to the U.S. Army Corps of Engineers and the Caspian Tern Working Group, and a feasibility

assessment of potential alternate tern nesting sites along the Pacific Coast. The feasibility assessment will identify and rank opportunities to develop coastal tern nesting habitat as a means to disperse a segment of the Columbia River estuary tern colony.

Section 7 Consultations on TMDL Development (Restore Tributary Habitat) - The funding was used for basic assistance to state water agencies in TMDL development and for related consultation activities with the action agencies. FWS involvement is required due to ESA responsibilities for listed bull trout and Kootenai white sturgeon.

Instream flows (Restore Tributary Habitat) - The funds will be used to implement bull trout recovery actions identified in the subbasin plans and the FWS's Bull Trout Recovery Plan. The main focus will be on establishing instream flows that benefit bull trout, salmon and other fish and wildlife.

Passage, Habitat Restoration and Protection for Bull Trout and Other Species (Restore Tributary Habitat) - Existing habitat restoration funding was directed to priority projects identified during provincial, and watershed/subbasin assessment and planning processes.

Aggressive Fish Passage Improvements (Restore Tributary Habitat) - Actions that are necessary to recover bull trout and salmon include screening of pumps and turbine intakes and restoring fish passage at problematic diversions and dams.

Restoration on Private Lands through the Partners Program (Restore Tributary Habitat) - The Partners Program provides technical assistance and financial support towards habitat restoration and protection for native fish throughout the Columbia River Basin. The projects completed on private lands will contribute toward the off-site mitigation goals of the FCRPS BO and the Recovery Strategy.

Ensure the passage requirements of bull trout are met by the action agencies - The requested increase will be used to improve fish passage and screening in the Columbia Basin including passage and screening guidance for the Bureau of Reclamation and Army Corps of Engineers who are required by the Biological Opinions to complete projects; and identifying specific fish passage and habitat actions that will facilitate restoration. This work will be closely coordinated with NMFS to ensure that the requirements of all listed species and other fish and wildlife are addressed.

Improve Mainstem Habitat - The FWS described the physical habitat use and requirements for fall chinook and chum salmon in the mainstem Columbia River below Bonneville Dam and monitored and evaluated biological characteristics and habitat use of tributary populations of chum salmon in the area. Spawning ground surveys and tracking of adult movement and habitat use, primarily through the use of radio tags and stationary and mobile telemetry equipment, was used to define habitat requirements such as tailwater elevations required for spawning, incubation and emergence. This information was critical in 2001 for determining river operations to protect these fish.

Implement the Fisheries Restoration and Irrigation Mitigation Act of 2000 (Protect and Restore Tributary Habitat) - In FY 2002, Congress provided funding for implementation of the *Fisheries Restoration and Irrigation Mitigation Act of 2000*. This program will significantly enhance the FWS's ability to implement on-the-ground, cooperative actions to immediately aid salmon, steelhead, and other native fish recovery in the Northwest by creating a voluntary, cost-shared fish screen and fish passage program for water diversions in Oregon, Washington, Idaho, and western Montana.

Detailed Summary of existing programs, on-going actions, and major priorities in the Columbia River Basin

The following is a detailed summary of the habitat conservation and restoration programs funded or carried out by the FWS in the Pacific Region. Although these programs are national in scope, the FWS implements these programs throughout the Columbia River Basin through numerous Field Offices in Oregon, Washington, and Idaho. Within the guidelines of established national policy, the FWS has considerable latitude regarding how these programs are implemented. These programs do not focus specifically on anadromous fish stocks, listed species, or the NMFS/USFWS Biological Opinion. However, they all provide significant benefits to fish and wildlife resources in the watersheds in which they are implemented. These programs are not listed in priority order and the specific funding amounts vary from year to year depending on budget priorities. Where available, we have provided examples of specific habitat conservation or restoration projects and accomplishments.

Habitat Conservation Programs

Advanced Project Planning through the Fish and Wildlife Coordination Act

Through the authorities provided in the Fish and Wildlife Coordination Act, the FWS works closely with a variety of Federal agencies to ensure development projects are designed to minimize adverse affects on fish and wildlife resources. Advanced Project Planning activities are intended to provide expert ecological advice and technical assistance to other Federal agencies, States, Tribes, and the public, prior to initiation of formal project planning or submission of permit and license applications. These activities are undertaken before FWS input is required by statute. Potential problems are identified and resolved with maximum flexibility before the project sponsor expends significant amounts of time or makes irreversible commitments of resources to a particular course of action.

Although the FWS provides planning assistance on many types of projects, most coordination efforts are focused on transportation infrastructure, water resource development, and energy related activities. Recent priorities in the Columbia River Basin include new energy development, hydropower relicensing, commercial navigation, highway transportation, and environmental streamlining activities.

Habitat Restoration - Partners for Fish and Wildlife

Through voluntary agreements with private landowners, the FWS's Partners for Fish and Wildlife program (PFW) has restored wetlands, native prairie, riparian areas, in-stream aquatic habitats, and other habitats vital to a wide variety of fish and wildlife resources. In addition, the PFW program provides valuable technical assistance to the U.S. Department of Agriculture in implementation of the Wetlands Reserve Program, the Conservation Reserve Program, the Environmental Quality Incentives Program, and the Wildlife Habitat Incentives Program. Through technical assistance provided to the Farm Service Agency via that agency's inventory land disposal program, the PFW has focused on obtaining permanent protection and restoration of thousands of acres of wetlands and other environmentally-sensitive lands.

Habitat Restoration in the Columbia River Basin: A Partners for Fish and Wildlife project, using either restoration funds or in-kind technical assistance, could enhance and/or restore degraded streams which could provide more or better quality habitat for salmon, steelhead and bull trout. Restoration projects could include fencing to exclude livestock from direct access to riparian areas and streams; planting native vegetation to stabilize stream banks, and to provide shade; removal of fish passage barriers, and installation of instream structures to improve stream flows.

In Oregon, wetland restoration has largely been implemented in the Willamette Valley by the Willamette Valley National Wildlife Refuge Complex. The predominant technique has been to use low berms and water control structures with some disking to restore an emergent plant community and eliminate reed canary grass.

In Idaho and eastern Washington, wetland restoration projects have involved berming or plugging drainage ditches, and planting native woody vegetation and/or bunchgrass seed. Examples of enhancement projects included re-contouring the bottom of wetland areas, constructing dikes and installing water control structures. Examples include:

Twin Creek, Idaho: One mile meander reconstruction, instream habitat, riparian and wetland habitat restoration project. This reconstruction restored spawning and rearing habitat for bull trout.

Ball Creek, Idaho: Restoration of over 300 acres of wetland habitat on the Kootenai River flood plain through ditch plugging, berming, and installation of water control structures.

Windmill Ranch Wetland Restoration Project, Washington: A three phase project which began in 1999. When completed, a total of 50 acres of wetland will be restored. This project is a cooperative effort between the FWS, Washington Department of Fish and Wildlife, and Ducks Unlimited. This year 10 acres of wetland were restored by installing a water control structure and reshaping the wetland and upland areas in the project area.

In Oregon, native grassland restoration has focused on restoration of oak savannah habitats in the Willamette Valley. The restoration has included a combination of discing, herbicide application, and re-seeding with native grasses and forbes. Prescribed fire is planned for these sites in the future to further increase the native species component. In addition, FY 2002 restoration projects will be completed with the use of a no-till seed drill to improve the initial restoration response.

In Idaho and eastern Washington, upland restoration includes removal of noxious weeds, removal of exotic species and converting farmland to native vegetation including planting of native forbes, grasses and shrubs. In Chelan County, Washington, two projects are being developed for implementation in 2002. The first upland restoration project consists of restoring 800 acres of farm ground to native upland vegetation. The vegetation will include native grasses, forbes and shrubs. The second upland project includes restoring 2,500 acres of land that was previously entered into the Conservation Reserve Program and planted in a monoculture of grass cover. These areas will be restored by planting native grasses, forbes, and shrubs.

In the Walla Walla River Basin alone, the Washington Department of Fish and Wildlife identified 417 unscreened or partially screened diversions that seriously affect juvenile salmonids. Future fish screen projects will be part of a larger effort to improve habitat along the Walla Walla River and its tributaries. Currently, the FWS has a cooperative agreement with the Walla Walla County Conservation District (WWCCD) to carry out a small fish screen project for demonstration purposes. Future fish screen projects will be carried out with numerous partners including local landowners, the Salmon Recovery Fund Board, NMFS, WDFW, WDOE, ACOE, Confederated Tribes of the Umatilla Indian Reservation, and numerous local organizations, environmental groups, and sportsman's clubs.

The WWCCD and the FWS, through the completion of four riparian buffer projects, will restore woody vegetation to several stream corridors and protect riparian habitats through exclusion fencing. The WWCCD anticipates implementing four riparian buffer projects, including two on the Touchet River near Prescott, one on the Lower Walla Walla River immediately upstream of an existing buffer, and one on Yellowhawk Creek on the Walla Walla High School campus. The projects will involve some fencing and re-vegetation with native species, such as cottonwood and willow. An estimated total of 22.5 miles of riparian corridor will be set aside through these buffer projects.

In 2001, the PFW program developed a cooperative agreement with Chelan County to help reverse the trend of declining fish and wildlife habitat by restoring such habitats on an ecosystems/watershed basis and promote natural resource stewardship by actively cooperating in information and education programs and technical assistance on fish and wildlife habitat issues. Through this cooperative agreement the FWS, Chelan County, and the Natural Resource Conservation Service are currently planning several stream restoration projects on private lands in 2002. One project will stabilize streambanks and reduce erosion along 1 mile of lower Icicle Creek, tributary to the Wenatchee River, through the use of instream structures and planting native riparian vegetation. Land management practices are being voluntarily changed on the property and cattle will be fenced from the stream and its riparian zone. The amount of rearing

habitat and the quality of spawning habitat for salmonids will increase through the implementation of this project. Presently, spring and summer chinook and steelhead spawn downstream of the project area.

Habitat Restoration - Jobs in the Woods

The Jobs-in-the-Woods (JITW) program is a non-Federal lands restoration program within the boundaries of the Northwest Forest Plan (the area west of the Cascade Mountains from Washington State south to northern California). Implementation of the JITW program is accomplished through the FWS Offices in Oregon, Western Washington, and northern California. The JITW program has two main goals: improve ecosystems to better support native fish, wildlife and plants, and to provide employment opportunities in communities affected by a downturn in the timber industry.

The JITW program funds projects that address upland, riparian/wetland/estuarine, and instream habitat improvement needs. In addition to funding improvement activities, the program funds specific watershed assessments where sites for treatment have not yet been inventoried and treatments have not been designed. These analyses identifying activities that will address the sources of problems and have long-term benefits to the ecosystem, and benefits to threatened or endangered species.

Habitat and Instream Restoration in the Columbia River Basin: The Jobs-in-the-Woods program has the dual purpose of providing jobs in local timber-dependent communities and improving fish and wildlife habitat through funding watershed restoration on non-federal lands. Funding is prioritized according to the needs of aquatic and riparian environments for focused riparian and watershed restoration efforts, including many where several ESA-listed species reside. For example, a JITW project could improve bull trout habitat by either stabilizing streambanks devoid of vegetation and preventing sediment from entering the stream through fencing riparian habitat, or building off-channel live-stock facilities and live stock crossings.

The predominant instream restoration or enhancement issues that the JITW program addresses is low channel diversity, low stream productivity, sources of channel instability, and fish passage barriers. The program uses watershed or other analysis to ensure that instream structures will improve aquatic and riparian ecosystem function. Typically, instream structures are not recommended until the long term stability of the upper watershed and riparian areas have been addressed. Instream restoration is aimed at the restoration of watershed processes and functions such as restoring sediment or hydrologic regimes by addressing problems with sediment transport, storage and sorting, or re-establishing connections between the stream channel and its floodplain.

The program addresses wildlife, fish and plant restoration or enhancement needs related to the effects channel diversity and productivity by:

1. placing large woody debris structures within stream channels and flood plains;

2. placing boulders within stream channels where these provide grade control under natural conditions;
3. developing off-channel fish and wildlife refuge areas;
4. deploying salmon carcasses to enhance nutrient cycling.

The program addresses fish passage restoration or enhancement needs by:

- replacing irrigation diversion structures with new ones designed to avoid channel stability and fish passage issues;
- removing, modifying, realigning, or replacing culverts;
- installing or modifying artificial fishways.

Clear Creek Fish Passage/Water Quality Enhancement Project, Clackamas, Oregon.

The FWS worked cooperatively with the Oregon Wildlife Heritage Foundation, Oregon Department of Fish and Wildlife (ODFW), and Port Blakely Tree Farm to provide funding for fish passage improvements on the Port Blakely Tree Farm property in Clackamas County, Oregon. ODFW identified nine culverts that were undersized, perched, worn out, or misaligned that either blocked or impeded fish passage into suitable spawning and rearing habitats in the Clear Creek watershed.

The nine identified culverts were replaced with five open-bottom arch culverts, three larger countersunk culverts, and one culvert was permanently removed. These new installations will provide salmonid access to 5.25 miles of spawning and rearing habitats. Coho salmon, steelhead trout, and coastal cutthroat trout were the species targeted as benefitting from this project. Port Blakely Tree Farms is also completing 24 miles of roadway improvements to reduce sedimentation of the streams.

The FWS provided technical assistance and 39 percent (\$60,000) of the total project cost (\$153,500) through the Jobs in the Woods Program. Six workers from timber dependent communities were employed for 114 working days. Landowner contacts were provided by ODFW and on-site project coordination, planning, and implementation were provided by the Port Blakely Tree Farms. ODFW will monitor fish passage and salmonid use of the newly available habitat.

Habitat Restoration - Coastal Ecosystems Program

The Coastal Ecosystems Program is an ecosystem/watershed based program designed to conserve fish, wildlife, and their habitats in the Pacific Region's threatened coastal areas. The primary activities of the Coastal Program is assessing the presence, abundance, status, and trends of coastal living resources, and developing and implementing strategies and actions for sound resource management, restoration and protection. Program goals are met by focusing at least 70 percent of program funding towards on-the-ground actions. The remaining 30 percent is technical assistance and coordination. In selecting project areas, the FWS analyzes the diversity

of various coastal areas, identifies which coastal areas and watersheds are most vulnerable and focuses on areas that have the greatest opportunities for interagency collaboration and on the ground results. By improving conditions for coastal fish and wildlife, the program maintains coastal biodiversity and averts costly and unnecessary confrontations over listed species in these areas. This approach reduces the probability that endangered and threatened species will move closer to extinction but also helps reduce the chances that other species from reaching populations levels and habitat conditions where listing may be required.

Coastal Program funds are allocated to specific offices located in geographic areas that we have identified as priority areas, or that have been established by Congress. There are currently five Coastal program offices in the Pacific Region: Puget Sound, Oregon Coast (Newport), San Francisco Bay, Hawaiian/Pacific Islands, and San Diego Bay. Coastal program offices routinely leverage funds and in-kind services for restoration projects that benefit coastal wetlands, uplands, and intertidal zones. Projects are typically evaluated, prioritized, and funded by the Coastal Program Offices' program managers with input from and in cooperation with other participating entities (Federal, State, Tribal, local, NGO).

All the examples of the Coastal Program accomplishments are from coastal areas outside the Columbia River Basin. However, in FY2002, the FWS will be focusing considerably more resources toward the Lower Columbia River and the estuary through the recently established Oregon Coastal Program.

National Wildlife Refuge System

Refuge Operations Needs System - Improve Habitat and Protect Wildlife

The Refuge Operation Needs System is a computer based method for evaluating and ranking the operational needs of the National Wildlife Refuge System on a national basis. Although primarily a system for identifying infrastructure needs, it also includes habitat, wildlife, and restoration needs as well.

Projects are aimed primarily at biological activities such as surveys and monitoring of wildlife populations, control of disease outbreaks, and relocation and reintroduction of wildlife where appropriate. Funds are used for restoration, enhancement, and management of a wide range of habitat types on National Wildlife Refuges. Funds may also be used for habitat restoration activities such as invasive plant control. Projects are selected based on the priorities outlined by Refuge Managers and are restricted to National Wildlife Refuge System lands.

The conservation, protection, and restoration of the Hanford National Wildlife Refuge remains one of the highest priorities of the FWS. This NWR and surrounding lands encompass some of the best fish and wildlife habitat remaining in the Columbia River Basin and supports an internationally important spawning area for anadromous salmonids. The FWS will continue to work with a variety of State, Federal, Tribal, and local governments and interested parties in the Mid-Columbia area to ensure that protection of the Hanford National Wildlife Refuge is conducted in fully consideration of existing and historical uses of these lands.

Endangered Species Act Conservation Programs

The Endangered Species Act has several authorities that provide for the restoration and recovery of listed species through cooperative funding, pro-active programs, and incentives for voluntary conservation actions. The FWS uses these authorities to facilitate the recovery of listed species through cooperative efforts with States, local governments, private landowners, and non-governmental organizations.

Candidate Conservation and Safe Harbor Agreements

The Candidate Conservation program involves a cooperative and collaborative approach with states, landowners and other federal agencies to help reduce the probability that species will need to be listed as threatened or endangered. The Candidate Conservation program has two key elements: preventing the need to list species, and conducting assessments of declining species.

FWS involvement in candidate conservation may involve providing technical assistance on implementing conservation actions, conducting candidate assessments, and drafting candidate and state conservation agreements. Technical assistance can be as simple as providing voluntary conservation options to individual landowners to more involved coordination with state conservation efforts such as State Conservation Agreements.

Candidate species are those species for which the Service has sufficient biological information to indicate that listing is warranted.

The Safe Harbor program addresses the conservation efforts of private landowners. Landowners may be reluctant to improve habitat for fear that they may attract listed species and, as a result, incur land use restrictions. The Safe Harbor program assures landowners who implement conservation measures for listed species that their actions will not lead to additional restrictions. The program contributes to species recovery by working with landowners to increase species numbers and habitats and by involving private and other non-federal landowners in species recovery through assurances. The FWS expects the demand for Safe Harbor Agreements to continue to increase in FY 2003.

The FWS uses Candidate Conservation Agreements with Assurances (CCAA) and Safe Harbor Agreements to facilitate the conservation of proposed and candidate species, and species likely to become candidates, by providing non-Federal landowners with incentives to voluntarily implement conservation measures on their property to benefit declining species. Additional CCAA/SHA's will enhance the restoration called for in the Habitat Action Plan of the Conceptual Recovery Plan and contribute to the off-site mitigation required in the NMFS FCRPS BO. This could reduce or eliminate species declines for species such as redband trout, cutthroat trout, and burbot, which could delay or reduce the probability that these species will need the protections afforded by the ESA.

CCAA/SHA's in the Columbia River Basin:

<u>CCAA/SHA (issuance date)</u>	<u>Species</u>	<u>County</u>	<u>Acres</u>	<u>Field Office</u>
1) State of Oregon CCAA	Sharp-tailed grouse	Wallowa Co., OR	156,000	Boise
2) Soulen Ranch CCAA	Idaho ground squirrel	Payette Co, ID	23,000	Boise
3) Multi-species CCAA	WA ground squirrel	Morrow Co., OR	93,000	Oregon
4) Falls Creek SHA	Bull trout	Lemhi Co., ID	6 linear miles	Boise

Recovery Implementation

The FWS faces the challenging task of leading the efforts to recover endangered and threatened species. Because factors responsible for a species' endangered or threatened status are often complex, recovery generally requires coordinated actions by numerous stakeholders over a long period of time. The FWS works with Federal, State, Tribal and non-government entities to take necessary measures to prevent extinction of species, prepare recovery plans to ensure coordinated, effective recovery actions, and to implement these actions to reverse the decline of listed species and expedite full recovery.

In the Columbia River Basin, the FWS has requested an increase of \$625,000 to help meet the requirements for implementing the Reasonable and Prudent Alternatives for several biological opinions in the Columbia River basin to address declining salmonid species. These actions will further the recovery of bull trout and Kootenai white sturgeon. This funding will complement work begun in FY2001, notably the initiation of sub-basin assessments, which will lead to sub-basin plans for each of the 15 Columbia River Basin sub-basins, and the establishment of instream flow assessments. The FWS will be able to provide more assistance and oversight on actions that may affect listed fish in the Columbia Basin. We will initiate fish passage and habitat improvement programs for bull trout, and conduct applied research into bull trout passage needs, life cycles, and population dynamics in the Basin. The funding will help the FWS meet customer needs by assisting in project planning and implementation.

The FWS anticipates that the Bull Trout Recovery Plan along with the Bull Trout Critical Habitat Designations will be completed in FY2002. This will provide a guide for agencies and planners throughout the Columbia River Basin and can focus efforts on protecting and restoring important bull trout populations and habitats throughout their range.

Consultation

The ESA Consultation program includes two primary components, the Section 10 Habitat Conservation Planning program and the Section 7 Interagency Consultation program. Through the Habitat Conservation Planning program, the FWS works with private landowners and local

and state governments to develop Habitat Conservation Plans (HCPs). HCPs allow private economic development to proceed while promoting listed species' conservation. Through the Section 7 Consultation program the FWS works with Federal agencies and project applicants to ensure the activities they carry out, fund, or authorize are compatible with the conservation needs of listed species.

As part of a major effort towards aquatic species restoration and recovery in the Columbia Basin, the FWS has requested an additional \$794,000 in FY03 to address consultation needs from a variety of customers and to help Federal agencies ensure their actions are consistent with Federal Columbia River Power System Biological Opinions (BOs). Funds will also be used to help remove regulatory disincentives for restoring listed species habitat on private lands through issuance of Section 10 permits. This will allow the FWS to:

- Meet a wide array of consultation and planning needs for ongoing projects affecting Columbia River species for which the FWS has jurisdiction (e.g., bull trout and Kootenai white sturgeon), including restoration projects, enhanced fish screening, and establishment of water quality standards/Total Maximum Daily Loads, and dredging projects;

- Streamline the consultation process and meet our commitments to implementing the programmatic biological opinions for the Federal Columbia River Power System issued in December 2000 by the FWS and the National Marine Fisheries Service. This includes participating in efforts with the Bureau of Reclamation and Corps of Engineers to refine operational aspects of the hydropower system to enhance species conservation, improve fish passage and develop restoration plans;

- Facilitate implementation of the BOs; and,

- Aid in the development of HCPs on state and private lands which are expected to increase as a result of Subbasin Plans.

Landowner Incentive Program and Stewardship Grants

To encourage private landowners to conserve species the FWS has two programs that provide incentives to private landowners and local communities to protect imperiled species and their habitat: Landowner Incentives Program and Private Stewardship Grants.

These programs provide competitive matching grants to states, territories and tribes to establish or supplement existing landowner incentive programs that provide technical and financial assistance to private landowners. The awards will fund programs that provide assistance to landowners and restore habitats of listed proposed, candidate or other species determined to be at-risk on private lands.

The FWS is currently developing regulations and guidance to implement the programs. The FWS anticipates an announcement of the fund's availability and a deadline of late May for submission of grant proposals. This schedule should allow adequate time for states, tribes, and territories to submit grant proposals, and for the FWS to review, rank, approve, and fund the best proposals before the end of FY 2002.

Of the \$40.0 million appropriated for this program in FY 2002, approximately 10 percent, or about \$4.0 million, will be allocated to tribes for grants, \$34.8 million will be allocated to the states and territories for grants, and \$1.2 million will be used for administration of the program and its grants.

States, tribes, and territories will submit proposals to the FWS for scoring and prioritization. A minimum 25 percent share of total project costs must come from non-federal sources. Once awards are approved by the FWS Director, Regional Offices will assist grantees in meeting federal grant requirements and in obligating funds. The grantees will be required to provide performance and fiscal accounting reports. Any funds not obligated during the first round of competition will be available to eligible parties in second or future rounds until the FY 2002 funds are spent.

Cooperative Endangered Species Conservation Fund

The Cooperative Endangered Species Conservation Fund (Section 6 of the Endangered Species Act) provides grant funding to states and territories for species and habitat conservation actions on non-federal lands. Because most listed species depend on habitat found on state and private lands this grant assistance is crucial. States and territories have been extremely effective in garnering participation of private landowners. Section 6 grants assist the states and territories in building these partnerships.

States and territories must contribute 25% of the estimated program costs of approved projects, or 10% when two or more states or territories implement a joint project. The balance of the estimated program costs is reimbursed through the grants. A state or territory must enter into a cooperative agreement with the FWS to receive grants.

Section 6 Conservation Grants fund projects including:

- # Habitat restoration
- # Species status surveys
- # Public education & outreach
- # Captive propagation and reintroduction
- # Nesting surveys

In the Columbia River Basin, the FWS provided Section 6 Conservation Grants to the Idaho Department of Fish and Game for the Selkirk Ecosystem Project, the Northern and Southern Idaho Ground Squirrel Project, the Status of Canada Lynx in Idaho, and the Columbia spotted frog conservation project.

Conservation Grants Conservation Grants provide financial assistance to states and territories to implement conservation projects for listed species and species at risk. The FWS makes a

primary regional allocation of these funds based on the number of species covered under cooperative agreements within each region, then selects projects based on conservation benefit and other factors. The demand for financial assistance by states and territories for these activities greatly exceeds available funds.

Recovery Land Acquisition Grants Habitat loss is one of the primary threats to species. Therefore, habitat acquisition is crucial before development or other land use changes impair or destroy key habitat values important for species recovery. Land acquisition is increasingly costly; often neither the Service nor the states and territories have the necessary resources to acquire key habitats before land use changes impair or destroy habitat values. The Recovery Land Acquisition Grants program provides funding to states to acquire lands (from willing sellers) essential to recovery of listed species.

HCP Planning Assistance Through the development of regional, multiple species HCPs, local governments incorporate species conservation into local land use planning, which streamlines the project approval process and facilitates economic development. The HCP Grants program provides funding to states to develop HCPs and implement conservation actions that complement mitigation called for in HCPs. Grants do not fund the mitigation required of an HCP applicant or permittee, but instead they support conservation actions by state or local governments that complement mitigation.

In the Columbia River Basin, the FWS provided HCP Planning Grants for the Walla Walla Basin-wide HCP, the Multi-species HCP in Douglas County, Washington, and for the Chewuch Basin Council HCP. The FWS also provided technical assistance for HCP's in the Methow River Watershed.

Habitat Conservation Plan Land Acquisition The conservation benefits provided by HCPs can be greatly increased by protecting additional important habitats within or in proximity to areas covered by HCPs. HCP Land Acquisition Funds are used by states and non-Federal entities to acquire such habitats from willing sellers. These acquisitions complement, but do not replace, the mitigation responsibilities of HCP permittees. States and territories receive these funds for land acquisitions associated with approved HCPs because of their authorities and close working relationships with local governments and private landowners.

U.S Fish and Wildlife Service, Pacific Region
Basinwide Salmon Recovery Strategy
Progress Report on Conservation of Columbia Basin Fish
Harvest and Hatchery Actions - April 2002

HARVEST

The *Conservation of Columbia Basin Fish Plan - Basinwide Salmon Recovery Strategy* (Recovery Strategy) recognized that fisheries managers had already taken decisive actions to reduce fishery impacts on stocks of concern in the last 15-20 years and that further fishery reductions by themselves would not lead to recovery, so the harvest objectives of the Recovery Strategy were to maintain those reduced impacts for a period of time while other actions contributed towards recovery, look for additional ways to reduce impacts, and manage fisheries so that allowable harvest rates were not exceeded while providing fishing opportunities that meet treaty Indian trust responsibilities and a reasonable opportunity for non-Indian fisheries. The Fish and Wildlife Service (FWS) has continued to actively engage in Columbia Basin fisheries management as well as ocean fisheries management that affect Columbia Basin stocks. The FWS participated on the Technical Advisory Committee of U.S. v. Oregon, the Salmon Technical Team (STT) of the Pacific Fishery Management Council (Council), and the Chinook Technical Committee (CTC) of the Pacific Salmon Commission (PSC) at the technical level and on the Council at the policy level to address important fisheries management issues and the objectives of the Recovery Strategy.

Limit Harvest Impacts - Consistent with the recommendations in the Recovery Strategy, Columbia River managers have moved more toward terminal area and selective type fisheries where impacts on listed stocks of concern can be reduced or at least held within agreed upon low levels and still provide some reasonable level of fishing opportunity. The FWS has embarked on a mass marking program for most of its steelhead, spring chinook, and coho hatchery production programs that are not committed to restoration purposes, to better enable implementation of the selective fisheries. The FWS is heavily involved in mass marking programs and conducts nearly all of the marking for the federal hatchery programs in the Columbia Basin. Tribal fishers have been less receptive to a selective fishery strategy given their typical gear types (conventional gillnets) which tend to be less selective in nature. However, the tribes have been working with the other managers to test large mesh gillnets relative to reduced impacts on steelhead and are becoming more engaged in terminal area fisheries in locations where surplus hatchery fish are returning in abundance.

In FY 2001 and FY 2002 the FWS has continued to worked closely with the tribes and other Columbia River managers to evaluate the efficacy and impacts of various fishing strategies that reduce impacts on stocks of concern, especially those stocks that are listed under the Endangered Species Act (ESA). FWS staff have also worked very closely with the other co-manager staffs to develop and use harvest assessment tools such as the Chinook Technical Committee Chinook

Model, Council Fishery Regulation Assessment Model, and other assessment models to improve management. FWS provided key staff for developing the historical database and conducting the initial run-reconstruction and spawner recruitment analyses in a project to review and develop a new steelhead escapement goal for the Snake River basin.

All fisheries targeting Columbia River stocks, including those in the ocean off the coasts of Washington, Oregon, British Columbia, and Alaska are managed under an abundance based approach so that weak stocks or aggregates of stocks define the allowable harvest rates, thus continuing to provide adequate protection for listed stocks. Fisheries are being managed so that they are consistent with the newly adopted Pacific Salmon Treaty that was signed in 1999. Every fishery that targets salmon or steelhead is limited by a constraining stock or group of stocks with an allowable harvest rate or escapement rate that has been reviewed and approved by the National Marine Fisheries Service through their Biological Opinion and Incidental Take Statement or Fishery Management and Evaluation Plan 4(d) rule process. The FWS, along with the other Columbia River co-managers, has been diligent to develop and use the management and assessment tools to keep fishery related listed species impacts within these defined levels.

HATCHERIES

Hatchery and Genetic Management Plans (Reform Production Facilities) - The FWS and NMFS developed a Hatchery and Genetic Management Plan (HGMP) template in collaboration with the states, and tribes. The HGMP provides a standardized approach for developing and assessing a consistent body of relevant information about artificial production programs. The FWS considers an approved HGMP to be a necessary step in assessing artificial propagation programs and in issuing Biological Opinions for a wide range of species listed under the ESA. NMFS' January 3, 2000 proposed 4(d) rules governing the take of 14 threatened salmon ESUs covering portions of Idaho, Washington, Oregon and California rely heavily on HGMPs to address limits on take prohibitions at National Fish Hatcheries. In addition, the NMFS 2000 Federal Columbia River Power System Biological Opinion (FCRPS BO) requires the Action Agencies (Bonneville Power Administration, Corps of Engineers, and Bureau of Reclamation) to provide resources to develop HGMPs to help guide hatchery reform actions in the Columbia River Basin (Action 169). The NMFS has identified 17 FWS hatchery programs, as well as an additional 26 programs funded under the Lower Snake River Compensation Plan, that will require HGMPs.

Action 169 of the FCRPS BO states that "Action Agencies shall fund the development of NMFS-approved HGMPs for implementation, including plans for monitoring and revising them as necessary as new information becomes available." In FY 2002, the FWS is developing Phase 1 HGMPs at all FWS hatcheries in the Columbia River basin, including developing 26 HGMPs for the Lower Snake River Compensation Plan Program. The FWS and NMFS are also working closely with the Action Agencies to initiate Phase 2 HGMPs that incorporate reform actions, and Phase 3 HGMPs to coalesce HGMPs into ESU-wide coordinated documents. Timelines for completion of the Phased plans are: Phase 1 completion in September 2002, and signed Phase 3 by September 2003.

The Action Agencies have committed to provide funding to complete Phase 1 HGMPs for at least an additional six hatcheries in FY 2002 and the FWS is already initiating work on these plans. Efforts are also underway to complete 26 HGMPs for the FWS administered LSRCP hatcheries using existing LSRCP funding. Phase 2 and 3 funding for LSRCP plans is still being negotiated between the FWS, co-managers and Bonneville Power Administration. As a result of efforts to address HGMPs, Phase 1 plans for all FWS funded and/or operated hatcheries are scheduled for completion by September 30, 2002. Additionally, funding to hire staff to work on the Phase 2 and 3 processes is expected at the beginning of FY 2003.

Reform Production Facilities - The HGMPs currently being developed for all the FWS funded and/or operated hatcheries in the Columbia River Basin will serve as the platform for proposing changes. However, several reform measures were implemented in FY 2001 and additional reform programs are underway in FY 2002.

In FY 2001 LSRCP staff participated in many region-wide forums to incorporate reviews of the goals and objectives of the LSRCP hatchery program. Examples of these are participation and coordination with recovery planning efforts (e.g., NMFS technical review teams), participation with NWPPC's subbasin planning efforts, and participation in *U.S. v Oregon* Columbia River Fish Management Plan renegotiations.

In FY 2002, the LSRCP and its cooperators are in the process of developing HGMP's for all ongoing programs, including our conservation projects. They will be completed by this fall and will serve as the "baseline" for any proposed changes, including reforms, that might follow. Funding for reform analyses and subsequent development of "reform HGMP's" is still being negotiated. When funding is secured, the LSRCP and its cooperators will work with regional interests to develop biologically sound actions which will improve the effectiveness of hatchery programs and reduce their adverse effects on listed fish.

To develop biologically sound "reform" actions, baseline population data are needed. In anticipation of needing to develop reform options for steelhead programs, in 2001 the LSRCP funded the NMFS Seattle Genetics Laboratory to provide genotypic data on steelhead tissue samples collected by LSRCP cooperators from 27 streams over a three year period. These analyses will be completed this summer and will be available to develop "reform" alternatives to existing hatchery programs and to identify and prioritize recovery strategies and subbasin planning alternatives.

In FY 2001 and FY 2002 at the cost of \$4 million, the FWS funded and reconstructed the rearing facilities at the Little Salmon NFH. Natural rearing features were incorporated in the designs of the new raceways to improve the rearing process and to imitate a more natural environment. Improved fish health, improved fidelity in return to the hatchery and increased survival will reduce impacts to wild populations and return more fish for harvest.

In FY 2002, the FWS is developing designs for egg isolation facilities at the Kooskia and Warm Springs NFHs. These facilities will enable the two hatcheries to isolate eggs during the incubation process while fish health diagnostics are underway. The capability to isolate the incubation process will also allow these facilities to serve as incubation facilities for out-of-basin safety net and conservation programs where such facilities are not available.

Comprehensive Hatchery Management Planning

The FWS has long recognized the need for a comprehensive hatchery planning process to assist in meeting the challenge of changes to hatchery management required by the conservation status of most Pacific salmon and other anadromous and freshwater fish species. The development of the Comprehensive Hatchery Management Plans (CHMP) will help to: 1) integrate FWS objectives and priorities with those of co-managers, other agencies, and resource programs; 2) fulfill our obligations under the Endangered Species Act and relevant fisheries conservation, mitigation, and management programs; 3) identify and define in specifics what hatchery reforms we are implementing to achieve our objectives; and, 4) provide a foundation for future program and budget development and review. The HGMPs completed for a specific hatchery will become part of that hatchery's CHMP.

The FWS initiated the development of three pilot CHMP plans in FY 2001 with three drafts being completed by the end of the year. Evaluation of the three drafts resulted in the selection of one of the drafts as the template for developing CHMPs for other FWS hatcheries. In FY 2002 the Carson NFH CHMP will be finalized and will serve as the template for other CHMPs.

Development of the CHMPs is a collaborative process involving individuals from both within and outside of the Service. Co-managers were notified in an August 10, 2001 letter from the Regional Director that the Service was embarking on a comprehensive planning effort for National Fish Hatcheries. The letter noted that it is not the Service's intention to develop different planning processes from those currently in place, but to better document our current and proposed actions.

The FWS is committed to developing and maintaining a sound scientific and management underpinning for its programs. We have participated with State, Tribal and Federal partners in reviewing and assessing hatchery operations as they evolve to become, more than ever, part of the solution to fisheries restoration and recovery goals. We have involved our cooperators in defining and evaluating our respective roles, and we continue to reach out to the general public, individual constituent groups, and local governments to explain our programs and initiatives. We have put in place a system of program evaluation that utilizes principles of adaptive management to integrate new information and expectations. All this and more is embodied in development of the CHMPs. The journey of developing these plans, the research, analysis, thought, and outreach, is as important as the product itself.

Protect Weak Stocks (Safety Net and Conservation Actions) - In FY 2001 the FWS implemented safety net and conservation programs to protect and conserve listed fish populations while meeting its responsibilities for providing a sustainable fisheries resource.

In FY 2001, the LSRCP Program and the Bonneville Power Administration jointly funded the Washington Department of Fish and Wildlife's recently initiated Tucannon River spring chinook captive broodstock program. The LSRCP Program also continues to cooperate with another six ongoing chinook captive programs in Oregon and Idaho. Eggs produced by captive-reared fish from these programs are incorporated into the LSRCP's production programs and released into their natal streams for conservation, recovery, and compensation purposes. FY 2001 also was a year that LSRCP staff was actively involved in the ongoing regional analyses of listed populations to identify populations at high risk of extinction for potential inclusion in the Safety Net program (identified in the FCRPS biological opinion). HGMP's developed for candidate Safety Net populations would be used to initiate conservation programs if populations are determined to be at immediate risk of extinction.

In FY 2001, the LSRCP Program also provided funding to Washington Department of Fish and Wildlife to initiate two pilot listed steelhead stock programs in the Tucannon and Touchet rivers. Based on the results of monitoring and evaluating studies, the LSRCP compensation programs may seek to convert existing non-endemic programs to these two stocks over the next several years. If successful, these programs may serve as a template for development of conservation programs in other LSRCP programs.

Conservation efforts in 2001 also included continuing two programs to conserve populations where habitat has been blocked by dams. As a result of irrevocably blocking the habitat in the North Fork of the Clearwater River behind Dworshak Dam the Clearwater 'B' run natural steelhead population was replaced by a hatchery production program at Dworshak National Fish Hatchery. This FWS hatchery serves as the sole repository for the North Fork Clearwater River 'B' run steelhead. In FY 2001 FWS continued to adapt spawning and rearing protocols to conserve the genetic strain of Clearwater 'B' run returning to the hatchery. Genetic analysis indicates that Dworshak B-run Steelhead more closely resemble the North Fork Clearwater rainbow trout than any other rainbow trout or steelhead collected in Idaho.

The FWS in partnership with the Warm Springs Indian Tribes also continues to implement a conservation program for spring chinook on the Warm Springs Indian Reservation. The program implemented by the FWS' Warm Springs National Fish Hatchery provides hatchery produced fish for tribal interests while helping to conserve the endemic population of spring chinook in the Warm Springs River. In FY 2001 the FWS working with other federal agencies and the Tribe initiated a restoration program to supplement spring chinook populations in Shitike Creek, a tributary of the Deschutes River in close proximity to the Warm Springs River. In addition, the FWS is working with the Tribes to evaluate the effects of hatchery fish released from Warm Springs NFH on wild fish in the Deschutes River. In FY 2002, the FWS modified a fish passage facility at the Warm Springs NFH to reduce impacts on wild spring chinook and listed populations of bull trout, and steelhead in the Warm Springs River. Another example of the FWS' FY 2001 conservation efforts in the Columbia River basin is the program to preserve populations, enact hatchery reforms and restore habitat in the Methow River Basin (Eastern Washington). The FWS worked closely with other federal and state agencies and two Tribes to conserve two species of ESA listed endangered salmon/steelhead (Upper Columbia spring chinook and Upper Colombia steelhead), ESA "threatened" bull trout and a significant

population of summer chinook in this upper Columbia River tributary. The FWS' Winthrop National Fish Hatchery (NFH) is one of two salmon hatcheries operating on the Methow River. The hatchery provides partial mitigation for fish populations lost due to the construction of Grand Coulee Dam in 1941. The recent salmon production program began in the 1970's and utilized the non-native Carson stock spring chinook stock for release into the Methow River. It was a conventional rearing and release facility. In an effort to decrease potential impacts to the native, listed spring chinook in the Methow River and to help recover the species, Winthrop NFH has begun phasing-out production of the Carson stock and replacing it with production of the listed native spring chinook. This effort accelerated in 2001 and 2002 with an agreement between the agencies and tribes on the utilization of the remaining Carson ancestry spring chinook returning to the hatchery and prioritization of genetic crosses to utilize in building the "new" listed hatchery broodstock

The Winthrop National Fish Hatchery (NFH) and the nearby state facility will be utilized to recover and preserve the genetic structure of fish populations in the Methow River. In addition to these activities the effort to compile a genetic inventory of the spring chinook in the Methow River was intensified. A number of hatchery reforms have also been enacted at Winthrop NFH in the last several years. Reduced rearing densities and "natures" rearing strategies are currently being evaluated.

Concurrent with hatchery efforts many habitat restoration activities were also initiated in FY 2001 and are continuing in FY2002 in the Methow River Basin. Most important among these are efforts by the agencies (including the FWS) and others to work with local irrigation districts and landowners to improve irrigation efficiencies and thereby increase instream flows for listed species during low flow periods.

Reduce Uncertainties; Assess Performance (Monitoring and Evaluation) - The FWS is pursuing an aggressive monitoring and evaluation program as funding permits. Each National Fish Hatchery leads a Hatchery Evaluation Team (HET) of federal, state and tribal specialists to address monitoring and evaluation efforts that address the effects of ongoing programs on listed species. The HET further recommends adaptive measures for implementation to improve hatchery operations and to reduce impacts of hatchery programs on natural populations.

The FWS is in the final year of field work of a study investigating the interaction of wild and hatchery steelhead in the Clearwater River below Dworshak NFH. Additionally, Dworshak NFH has implemented numerous changes in production to minimize residualism and produce a more viable smolt.

The LSRCP continues to closely monitor and evaluate the effects of the ongoing programs on listed species. Almost 20 percent of the current \$16 million budget is dedicated to this effort carried out by our state, tribal and federal cooperators. New studies are initiated annually to address the most current needs and assess the performance of our programs. For example, because of concerns that steelhead straying from various programs (including LSRCP facilities)

are adversely impacting listed Deschutes River populations, the LSRCP's funding for ODFW in 2001 and 2002 included monies to assess the level of straying into the Deschutes River and the source of strays. These reforms could include recommendations to develop and convert programs to endemic stocks.

In FY 2002, the FWS is implementing a study of ecological interactions between hatchery and wild fish in the Deschutes River. The study funded by the FWS is being coordinated with other federal agencies, the State of Oregon and the Warm Springs Tribes.

In 2001, the FWS surveyed wild salmon and steelhead and other fish species throughout Washington, Oregon and Idaho as part of the National Wild Fish Health Survey to ascertain pathogen levels in wild fish. This is critical information for management of fisheries and aquatic ecosystems. Wild fish pathogen data is maintained under the National Wild Fish Health Survey database and is available for fishery professionals to use for fish restoration and recovery efforts. A total of 4,895 fish were collected and analyzed from 233 different sites in 2001. Whirling disease, a microscopic protozoan parasite of salmonids that has spread across the United States during the past 40 years and caused high mortalities in some salmonid populations, was found during the 2001 sampling in wild fish from some sites in the Columbia River basin. This information was used to change fisheries management practices to prevent further spread of the parasite and potential impacts to salmon and steelhead.

The FWS also initiated in FY 2001 a number of fish marking projects with Bonneville Power Administration (BPA) funding to support tribal marking programs targeted at reintroduction of hatchery stocks in areas where native stocks have been extirpated. The tribes subcontract with the Service to provide coded wire tag (CWT) and other marking services for their evaluation programs. The goal of the tribal programs is to re-establish naturally spawning stocks of salmon and steelhead with hatchery fish where the native stocks have been extirpated. Marking support services from the Service allow the tribes to conduct the necessary evaluation studies to gauge the risks and benefits of their programs. Development of locally adapted broodstocks is one of the key objectives of the tribal reintroduction programs and also a prominent goal for regional hatchery reform.

The FWS, through the Idaho FRO, in FY 2001, participated in a Salmon Supplementation Study in which hatchery raised Snake River fall chinook salmon are released into the wild to help recover this ESA listed fish. The juvenile fish are acclimated and released from three different sites to distribute spawning of returning adults throughout the Snake River and a major tributary. Through evaluation of marked fish the Service determined differences in performance of fall chinook salmon released from these three acclimation sites. The information collected will be used to improve the program by changing release strategies in the future which will help accelerate recovery of listed Snake River fall chinook.

Applied Research

The FWS employs Fish Technology Centers (FTC) to conduct applied research programs. These programs focus on multi-disciplinary and multi-agency approaches to propagate and manage threatened and endangered anadromous fishes, and use and integrate hatcheries with natural fish production in a conceptual, ecosystem-based framework for recovery.

The Abernathy FTC developed and published a new technique that determines the presence or absence of multiple fish pathogens from a single tissue sample, thus saving considerable time and money in testing for fish diseases. A continuing study is developing a new broodstock of steelhead trout for the Lower Columbia River Basin, using the progeny of natural stream spawners collected over three field seasons. This study is determining the extent to which hatchery-produced steelhead reared under natural conditions contribute to full recovery in Columbia Basin tributaries. A separate study is evaluating the effects of natural rearing practices on an established hatchery population of steelhead trout. In a partnership with Columbia Basin tribes, a special hand-made feed was developed to “recondition” steelhead kelts (post spawning adults) in an effort to increase post-spawning survival of listed steelhead. Over 100 samples of commercial hatchery feeds were analyzed for quality assurance and site inspections assessed the quality of feeds manufactured by feed mills.

TRIBAL TRUST RESPONSIBILITIES

Typically all hatchery steelhead are marked with an adipose fin clip to designate their hatchery origin. However, in FY 2001, the FWS in accordance with the Columbia Basin *U.S. v. Oregon* interim management agreements for harvest and production issues, has released 100,000 fish from Dworshak NFH with only blank-wire tags and no external marks. Dworshak also supplies the eggs for another 550,000 un-clipped steelhead released in Clearwater River tributaries. These releases are to return adults, that will not be subject to sport harvest, to Dworshak NFH for broodstock and to natural production areas to assist with tribal reintroduction efforts.

The FWS’ Dworshak NFH continues to provide assistance to the Nez Perce Tribe in its reintroduction and supplementation efforts for the Upper Snake River basin. Most adult steelhead that are excess to the needs of the hatchery program are given to the Nez Perce Tribe for transport and release into tributaries for natural spawning. Additionally, the Nez Perce Tribe is operating the Clearwater River coho reintroduction program and some of this program utilizes Dworshak NFH facilities. This includes trapping of adults, spawning, egg incubation, and rearing of 280,000 smolts at Dworshak NFH and the acclimation and subsequent release of the coho from Kooskia NFH.

In FY 2001 the FWS through its LSRCP Program continued to fund artificial production programs for the Nez Perce Tribe (NPT), the Confederated Tribes of the Umatilla Indian Reservation (CTUIR), and the Shoshone-Bannock of the Fort Hall Indian Reservation, to co-manage LSRCP activities with the states and conduct evaluation studies of ongoing LSRCP release programs. Additionally, the NPT and CTUIR operate facilities funded by the BPA which provide adults to and receive juveniles from LSRCP hatcheries.