




State of Washington
Governor's
Salmon Recovery
Office

2002 State of Salmon

Part One

Governor's Salmon Recovery Office
PO Box 43135
Olympia, WA 98504-3135
Phone: (360) 902-2216
www.governor.wa.gov/esa

This publication was printed with soy ink on recycled paper.
An electronic version is available on our website.

If you would like copies of this document in an alternative format, please contact the Governor's Salmon Recovery Office at the address or phone number listed above.

Editor
Chris Drivdahl

Researchers and Writers
Governor's Executive Policy Office
Governor's Salmon Recovery Office

Reviewers
WA Dept. of Fish and Wildlife (WDFW)
WA Dept. of Ecology (ECY)
WA State Dept. of Natural Resources (DNR)
WA Dept. of Community, Trade & Economic Development (CTED)
Office of Financial Management (OFM)
WA State Conservation Commission (CC)
Interagency Committee for Outdoor Recreation (IAC)

Cover Photos Left to Right

Flett Creek / Salmon Recovery Funding Board
Pink male salmon / Manu Esteve
Stream restoration / Salmon Recovery Funding Board
Fisherman / Washington State Archives
Volunteers stream sampling / Dick Knight, Skagit Fisheries Enhancement Group
Stream bank restoration / Salmon Recovery Funding Board

Graphic Designer
Luis Prado

Contents

Preface

Legislation passed in 1998 (RCW 75.85.020) requires the governor to submit a biennial state of the salmon report to the legislature. The report is to summarize progress on activities intended to benefit salmon and to provide recommendations on steps to further the success of salmon recovery. In December 2000 the first State of Salmon Report was issued; this is the second State of Salmon Report.

The 2002 State of Salmon Report contains four parts: This is Part One; Part Two is the Staff Summary Report; Part Three contains detailed Data Reports; and Part Four is the Biennial Report from the Salmon Recovery Funding Board and Lead Entity Report.

This document provides an overview of our state's salmon recovery efforts. We summarize what has been accomplished over the last five years, in particular focusing on what has been achieved since the 2000 State of Salmon Report. In the last section of this part, we provide recommendations based on our experiences and our monitoring about where we think salmon recovery efforts should be directed over the next two years. The remaining parts of the 2002 State of Salmon Report give more detailed information about individual components of the state's salmon recovery activities.

Background

[1] For the purposes of this report, the term "salmon" will be used to refer to all species of salmon, steelhead, trout, and char native to Washington State.

[2] A watershed is the area of land that water flows across or under on its way to a river, lake, or ocean.

Seventy-five percent of Washington State is affected by fifteen listings of salmon[1] as threatened or endangered under the federal Endangered Species Act (ESA).

These listings are troubling for several reasons. Salmon continue to be an integral part of Washington's history, culture, economy and recreational enjoyment. Fishing supports businesses and provides jobs and recreational experiences for a significant number of Washington citizens. For example, the Washington Department of Fish and Wildlife (WDFW) reports the value of recreational fishing in Washington to be $1 billion in spending, while commercial fishing generates $289.2 million in economic benefits. Salmon are also valued for subsistence, for nutritional health, and for the spiritual well being of tribal people. The decline of salmon also tells us that the overall health of our watersheds,[2] including water quality and species diversity, is declining. Healthy wild fish populations provide the genetic diversity that is the basis for long-term viability of salmon. And, under ESA listings, the federal government or other parties through lawsuits can initiate selected actions that although beneficial to salmon, may adversely impact business activities, water and local land use, fishing, and agriculture.

The reasons for ESA listings are numerous. Declines of wild salmon closely parallel settlement and development of the Pacific Northwest over the last century. Rivers, streams, and habitat have been degraded over time by human activities; over fishing and hatchery fish have played a role in the decline; and dams have blocked fish habitat and impeded migration. These factors under human control that influence the health of our salmon are commonly referred to as the "four Hs"—habitat, harvest, hatcheries, and hydropower. While we recognize and must account for variable ocean conditions in producing healthy fish populations, we cannot influence them so the "four Hs" are our areas of focus for a statewide program to protect and restore salmon and watershed health.

The life cycle of salmon is generally three to five years, and it will take several salmon generations to know if we are doing the right thing with enduring results. This will require a long-term, sustained effort by state government, working in partnership with tribal governments, local and federal governments, private citizens, and organizations working at the watershed level. Even with the lack of long-term data on the response of salmon to our efforts, there are still a number of ways—covered in this report—to demonstrate our approach is "on course" and has a strong likelihood of success.

The National Marine Fisheries Service and U.S. Fish and Wildlife Service share responsibility for administration of the ESA, and it is these agencies that will adopt final recovery plans for salmon and steelhead. But, the state has a vital role and this report describes the state's response to salmon ESA listings and other activities to recover salmon. It also contains recommendations that move beyond the confines of this federal law in three fundamental ways:

- First, the state of salmon can be and should be equated with the state of our watersheds. Our concern should not be only listed fish, but rather the broader issue of overall watershed health. While we are investing a great deal of public funding and citizen support for salmon, we must look at water supply, water quality, and fish and wildlife habitat issues from a watershed perspective. We should be expanding and integrating the state's salmon and watershed efforts into one comprehensive program that improves all aspects of watershed health.

- Second, the ESA is a management tool of last resort. When a species is listed it means we have failed to manage our natural environment properly. The formal requirements of the ESA can often have significant economic impacts on citizens, business, the forest industry, and agriculture. By focusing on the broader objective of watershed health, we may be able to initiate more preventive management approaches that can

keep additional species from being listed under the ESA. This is, for example, a goal of the Puget Sound Shared Strategy effort, federal Habitat Conservation Plans, the Forests and Fish Agreement, and the Northwest Power Planning Council's (Power Council's) Fish and Wildlife Program. This should be the focus of state programs and efforts as well. Watershed health and preventive management, not ESA response, should be the hallmarks of the state's natural resource programs.

- Third, we must continue the momentum established by the legislature to support community-based watershed and regional efforts. People at local levels know their watersheds and they are invested in making improvements for the future of these areas. This is where partnerships and consensus are forged among local governments, citizen groups, tribal governments, agriculture, and business. And, this is where we look at environmental and economic issues together to define what sustainability really means. The energy and focus for state agencies should be in supporting local and regional watershed organizations.

State Legislation

In 1998, the legislature passed and Governor Locke signed, ESHB 2496 - an act relating to salmon recovery. In passing this Salmon Recovery Act, the legislature declared that the state should "retain primary responsibility for managing the natural resources of the state, rather than to abdicate those responsibilities to the federal government." This law set up a voluntary and locally-based salmon habitat restoration process, led by lead entities consisting of counties, cities, and tribal governments. The function of these entities is to develop a list of projects that help restore and protect habitat for fish within a Water Resource Inventory Area (WRIA) or combinations of WRIAs. The act also created our state's Independent Science Panel to "help ensure that sound science is used in salmon recovery efforts."

In 1999, the legislature passed and Governor Locke signed 2ESSSB 5595 to promote public oversight of funding for salmon recovery projects and to provide a coordinated state funding process. This law established a ten-member board consisting of five voting citizens and five non-voting state agency directors. The function of the board is to make grants and loans for salmon habitat projects and salmon recovery activities from the amounts appropriated to the board for this purpose. Governor Locke appointed members of the Salmon Recovery Funding Board (SRFB) later that year.

Although not in direct response to the ESA listings, the 1998 legislature passed and the Governor Locke signed ESHB 2514, the Watershed Planning Act, which substantially amended the state's watershed planning statute. This law provided for the establishment of local government-sponsored planning units in each WRIA or combination of WRIAs for the purpose of assessing the status of water resources in a WRIA or multi-WRIA area, and to determine how best to manage these resources in balance with competing resource demands as expressed in watershed plans. ESHB 2514 contained provisions that are related to the state's fish recovery efforts. Specifically, this statute also provided the option for each planning unit to voluntarily include instream flow, water quality, and habitat as components of their respective watershed plans.

And, in 2001, the legislature passed and Governor Locke signed SSB 5637, an act relating to monitoring of watershed health and salmon recovery. This law requires a Monitoring Oversight Committee to develop a comprehensive statewide strategy for monitoring watershed health, with a focus on salmon recovery. Their report is due in December 2002.

State Salmon Recovery Strategy

The 1998 Salmon Recovery Act also established a Salmon Recovery Office within the Office of the Governor to coordinate and assist in the development of regional salmon recovery plans. This office, through the leadership of the Governor's Special Assistant on Natural Resources, Curt Smitch, initiated efforts to coordinate state activity on behalf of salmon recovery. This was done largely through the work of the Governor's Joint Natural Resources Cabinet (JNRC). The JNRC developed and published the comprehensive *Statewide Strategy to Recover Salmon: Extinction is Not an Option* in September 1999. The Statewide Strategy provided a framework for the state's response to the ESA listings, providing goals and strategies for each of the four Hs necessary to recover salmon and outlining specific measures that needed to be taken. It includes, for example, looking at land use issues and the continued evaluation of growth management plans, critical areas ordinances and shorelines programs in relation to salmon recovery efforts. It also laid the foundation for a comprehensive program addressing watershed health using salmon as focus species.

The *Statewide Strategy* called for development of regional and local salmon recovery plans as the vehicles to accomplish its goals and to make salmon recovery a reality. In consultation with the WDFW, the National Marine Fisheries Service (NMFS) and others, the Governor's Salmon Recovery Office (GSRO) identified seven salmon recovery regions in the state. Organizations have now formed in most of these regions for the purpose of developing recovery plans. Clear, scientifically based recovery goals are pre-requisites for reliable recovery planning, and Technical Recovery Teams have been established by NMFS to develop technical information and to work with regional organizations to help identify the goals.

Columbia Basin

The Columbia River flows through five of the state's salmon recovery regions and holds 12 of the state's 15 ESA listings. In response to the ESA, the federal government called for expanded efforts in the Columbia River's tributaries to offset impacts on listed fish by the federal hydroelectric projects. This "off-site mitigation" program is increasingly linked with the regional salmon recovery organizations established through the *Statewide Strategy*. Many efforts are now underway to coordinate projects funded by the Power Council and SRFB.

A major component of the Power Council's effort is development of sub-basin plans, which will be done in the 11 ecological provinces and 62 sub-basins the Power Council has identified in the Columbia Basin. Seven of these provinces are in Washington and are aligned with the regional boundaries established by the GSRO. For the 2001-2006 period, Bonneville Power Administration (BPA) has allocated $186 million annually to implement the Power Council's fish and wildlife program in the four-state area. Projects identified in sub-basin plans and integrated with the State's Salmon Recovery Regions will receive priority funding.

The Columbia River estuary (estuary) plays a critically important role in providing for the recovery of Columbia River salmon. Since 1989, the states of Washington and Oregon have worked in close collaboration with local governments, tribes, federal agencies, and citizens on water quality and habitat-related activities in the estuary. In 1996, the estuary was accepted into the National Estuary Program (NEP), run under the auspices of the U.S. Environmental Protection Agency (US EPA). Governor Locke and Governor Kitzhaber of Oregon in late 2000 requested that the regional organization running the NEP, the Lower Columbia River Estuary Partnership, form an Executive Committee to integrate the effort with the other activities addressing impacts at hydroelectric projects. An ESA Executive Committee has been formed for this purpose.

Summary of Achievements

MAJOR PROGRAMMATIC INITIATIVES

Fisheries Harvest. Agreements negotiated in 1999 under the United States-Canada Pacific Salmon Treaty have resulted in reduction of the Canadians' catch of chinook and coho whose home streams are in Washington, and a 30% increase in the number of Puget Sound chinook that return to Washington's streams.

Hatchery Management. With over 100 facilities, Washington has one of the largest hatchery systems in the world. Guidelines consistent with the recovery of wild salmon have been developed for operation of these hatcheries, and a major scientifically based redesign of hatcheries to help recover and conserve naturally spawning fish populations has been underway since 2000. After decades of piecemeal reform efforts, the funding, independent science, and strong leadership needed to reform hatchery programs regionally and system-wide is in place.

Forests and Fish Agreement. This voluntary agreement among the state, NMFS, US Fish and Wildlife Service (USFWS), and private industrial forestland owners covers eight million acres of private forestland and protects 60,000 miles of streams for fish. Small forestland owners, local government, the US EPA, and some tribes were also participants in the final agreement that was adopted into law in 1999 by the legislature, and was the basis for new Forest Practices Rules that went into effect in July 2001. This is the first agreement of its kind in the country.

Water Policy. In 2001, Governor Locke launched a four-year statewide Water Action Strategy designed to improve the way water is managed in Washington, and the legislature passed a landmark bill resulting in comprehensive changes in the state's water law. Among other provisions, the bill made setting instream flows for fish a priority for watershed plans and appropriated new funding for this purpose. The legislature added new funding to acquire water to benefit fish and to fund metering devices in specific critical basins that are important to salmon. In 2002, the legislature directed an accelerated adoption process for in-stream flows in four high priority basins.

Limiting Factors Identification. At the direction of the legislature in 1998, the Conservation Commission has completed reports on habitat factors that limit wild fish production in 37 of the state's 62 WRIAs; all watersheds with salmon (but not all those with bull trout) will have a completed report by June 2003. These reports provide important baseline information for local groups setting priorities for habitat projects.

Shorelines Regulations. The state Shorelines Hearings Board invalidated shoreline management guidelines adopted by the Department of Ecology (Ecology); these guidelines were designed to protect 20,000 miles of shorelines and, in part, fish habitat. Negotiations to develop an agreement on new guidelines were succesfully concluded in December 2002.

Regional Road Maintenance ESA Guidelines. Originally developed by the Tri-County Coalition, the Regional Road Maintenance ESA Program was expanded to cover the entire state. The *Guidelines* provide a set of road maintenance policies and practices that will meet the dual goals of contributing to conservation of species protected under ESA while also meeting critical roadway safety and maintenance needs. More than two-dozen counties and cities and the Washington State Department of Transportation (WSDOT) have formally applied to NMFS for inclusion in the program.

Agriculture, Fish and Water (AFW). Negotiations continue with the agriculture community on compliance with the ESA. Negotiations have been successful in developing guidelines for irrigation district management plans and a pesticides registration review process that address fish protection. The state is implementing pilot irrigation district plans in the Dungeness, Nooksack, and Walla Walla watersheds. These plans are a pioneering effort to provide guidance to irrigation districts and water purveyors or users for developing management plans that will simultaneously meet requirements of ESA and the Clean Water Act (CWA). This process uses a voluntary, incentive-based approach.

Sub-basin Planning. The Power Council developed a fish and wildlife program that will address fish and wildlife needs, with a particular focus on ESA-listed fish species, through a sub-basin planning process. Having 27 of the 62 sub-basins, Washington is participating fully in the Power Council's program.

Puget Sound Nearshore Project. This project is a cooperative effort among the U.S. Army Corps of Engineers; state, other federal, and tribal governments; industries; and environmental organizations. Its goal is to preserve and restore the health of the Sound's marine and estuarine shoreline by identifying significant ecological problems, evaluating potential solutions, and implementing projects that will restore and preserve this critical habitat. It is one of the largest habitat restoration and preservation endeavors ever undertaken in the United States.

ORGANIZATIONAL

LOCAL WATERSHEDS. Twenty-six Lead Entities have formed under the Salmon Recovery Act, covering 45 of the state's 62 WRIAs. Thirty-one watershed planning units under the Watershed Planning Act have formed in 41 of the state's 62 WRIAs. In 32 WRIAs, lead entities and planning units formally work together.

REGIONAL ORGANIZATIONS. Regional salmon recovery organizations have been or are being formed in five of the seven regions. These are:

- **Puget Sound:** The Puget Sound Shared Strategy is a voluntary and collaborative effort to produce a recovery plan addressing 22 individual chinook populations, bull trout, and Hood Canal chum. The regional recovery effort is overseen and managed by a non-profit organization called the Puget Sound Salmon Forum. A draft recovery plan for ESA-listed species is expected by summer 2005.
- **Lower Columbia River:** At the request of a coalition of interests from Washington's five southwest counties, the 1998 legislature created a pilot program for steelhead recovery in Clark, Cowlitz, Lewis, Skamania, and Wahkiakum counties. This program now is addressing all ESA-listed salmon (bull trout, chinook, chum, steelhead) and is being carried out by the Lower Columbia Fish Recovery Board. A draft regional plan that addresses ESA-listed fish is due to the Power Council by summer 2004; this plan will be integrated with the recovery plan under development.
- **Upper Columbia River:** A coordinating forum for integrating the multiple processes that will develop a salmon recovery plan was formed with members representing three counties, two tribes, public utilities districts, citizens, and others. Draft regional fish and wildlife plans that address ESA-listed fish are due to the Power Council by summer 2004.
- **Snake River:** Formation of a Regional Recovery Board is currently underway. Cities, counties, tribes, local citizens, and others will be members. The findings and products of sub-basin planning efforts under the Power Council will be used to draft regional fish and wildlife plans that address ESA-listed fish by summer 2004.
- **Middle Columbia River:** The Yakima River Lead Entity is exploring creation of a regional recovery board that would include counties, cities, and the Yakama Nation. To be eligible for Power Council funding, draft regional fish and wildlife plans that address ESA-listed fish would be due to the Power Council by summer 2004.
- **Washington Coastal:** There are no plans at this time for a region-wide recovery organization; however, two Watershed Planning Units do exist for three WRIAs and four Lead Entities address issues for the five WRIAs in the region.
- **Northeast Washington:** No formal recovery organization exists, but stakeholders in the region have formed a regional Advisory Council and Oversight Committee for the purpose of implementing sub-basin planning. A draft regional fish and wildlife plan that addresses ESA-listed fish is due to the Power Council by summer 2004.

FUNDING (2001-2003) FOR SALMON RECOVERY ACTIVITIES

Current activities in state government highlighted in the *Statewide Strategy* have an important relationship to salmon. In addition to habitat protection and restoration, these activities involve forest, water, pesticides, hatchery, and harvest management. These programs have undergone changes in the way they operate in response to ESA. Information provided in this section summarizes this broad array of programs that, together, make important contributions to recovery of salmon in Washington.

The 2001-03 biennial budget for the State of Washington includes $266 million ($182M 01-03 appropriations, $84M carry forward from 99-01 biennium) in salmon-related expenditures for new activities, or changes to existing activities necessary to recover salmon or to meet the requirements of the ESA. The budget is predicated upon $84.7 million in federal funding for the two-year period, and includes appropriations for federal fiscal year (FFY) 2002 and 2003. Major components included in the state's 2001-2003 biennium are listed below. The remaining funds are supporting smaller projects and activities such as a special hydraulics project approval advisory group, stormwater manual development, critical area ordinance updates, and others.

Salmon Recovery Funding Board Grants

$68.9 million ($26.3 M State Bonds, $42.6 M Federal)

The SRFB provides grants to local governments, tribes, nonprofit organizations, and state agencies for salmon habitat restoration, acquisition, and assessments.

The 2001-03 biennial budget assumes $42.6 ($24.0M for FFY 2002 year and $18.6M for FFY 2003, less administrative overhead) from the Pacific Coastal Salmon Recovery program, administered by the NMFS. A match of $26.3M is assumed in the state budget.

Results: As of October 2002, the SRFB has provided grants for 517 projects with a value of $96.4M. Project sponsors estimate 355 miles of streams were opened by removing blockages to fish passage. Over 3700 acres of habitat important to salmon were purchased. (More recent information is contained in the biennial report of the SRFB, found in Part Four of the 2002 State of Salmon Report.)

Forests and Fish Implementation

$20.9 million ($12.7 M State, $8.2 M Federal)

The 2001-03 biennial budget includes $20.9 million in state and federal funds to implement the Forests and Fish rules. The state budget assumes that a minimum of $4 million a year in federal funds will be provided for FFY 2002 and FFY 2003 through the Pacific Coastal Salmon Recovery program in the NMFS budget. This is the same level as provided in FFY 2000 and FFY 2001. This funding would continue to be passed through the SRFB to the Department of Natural Resources (DNR).

State agencies managing forestlands also need to inventory and modify forest roads to protect salmon. The 2001-2003 state budget includes $4.9 million for the DNR, WDFW, and the State Parks and Recreation Commission to begin meeting these requirements. WDFW assumes $200,000 of this amount in federal funding from BPA to help meet their obligations.

Results: More than 4700 Road Maintenance and Abandonment Plans have been filed. Since 2000, more than 400 culverts blocking fish passage have been repaired, opening more than 250 miles of fish habitat. Fifty directed research projects are underway to provide a scientific foundation for future modifications to forest practices regulations. Protective buffers along over 60,000 miles of waters in Washington were expanded from 50 feet to 75-175 feet.

Hatchery Reform

$23.7 million ($9.3 M State, $13.9 M Federal, $0.5 M Local)

Washington State, federal agencies, and Washington treaty tribes operate one of the largest systems of hatcheries in the world. The NMFS 4(d) rule requires all hatcheries to develop and implement Hatchery Genetic Management Plans (HGMPs) to ensure that these facilities do not harm salmon listed under the ESA. In FFY 2000, Congress provided $3.8 million through the U.S. Fish and Wildlife Service (USFWS) for the Washington Hatchery Improvement Project to conduct scientific research, and to redesign hatcheries to meet ESA requirements.

The 2001-03 biennial budget assumes $5 million for FFY 2001, and $5.6 million for both FFY 2002 and FFY 2003 for continuation of the Washington Hatchery Improvement program. The Interagency Committee for Outdoor Recreation, which also supports the SRFB grant process, would continue to administer this funding.

The budget for the WDFW includes $9.8 million in state and local funds to redesign and improve state hatcheries. It also assumes $2.7 million in federal funding through the BPA for reforms at Mitchell Act hatcheries.

Results: 128 HGMPs were developed and submitted to the NMFS for approval. Program management recommendations from the federally-mandated Hatchery Scientific Review Group are beginning implementation; these range from hatchery closures, to terminating hatchery programs at some facilities, to improving water quality, rearing, and predator control to increase success of chinook conservation programs.

Water Strategy

$24.1 million ($6 M Federal, $18.1 M State)

Washington's Water Action Strategy is designed to improve the way water is managed in the state. Elements of the strategy include sponsoring legislation to fix the out-dated water code, taking administrative actions where appropriate to improve instream flows, developing comprehensive watershed plans and regional water management programs, and securing adequate funding to implement needed actions. A total of $5.2 million is dedicated to setting instream flows, $6.5 million is budgeted for water rights acquisitions, $1.6 million is for enhanced stream gauging in five critical basins important to salmon, and $3.4 million will fund purchase and installation of water use meters. Other expenditures include water conservation projects and regional and local management initiatives.

Results: Almost 35,000 acre feet of water was put back in streams during times of the year important for fish; for example, in the Dungeness River watershed, the state leased sufficient water to maintain 50% of the normal stream flow in the river for fish. Stream gauging was enhanced in eight watersheds. The first major instream flow rule in 15 years was adopted, protecting flows on the Skagit River.

Economic Transition Funds

2001-2003 biennium: $ 6.7 million ($ 1.3 M State, $5.4 M federal)
Total 1999-2002 program: $34.04 million ($4.04 M State, $30 M Federal)

The 1999 Pacific Salmon Treaty called for a year-by-year reduction in the percent of Fraser River sockeye runs that can be taken within U.S. fisheries. This reduction in catch had a large impact on U.S. commercial fishers, so to assist in the transition out of this fishery, congress and the state legislature provided an economic transition package that required a permanent reduction of commercial salmon fishing licenses.

Results: 769 total commercial fishing licenses have been retired since 1999, of which 669 are a direct result of the 1999 Pacific Salmon Treaty.

Fish Passage Barriers and Screens

$16.2 million ($6.7 M State, $8.3 M Federal, $1.2 M Local)

Inadequate fish passage and improper screens on irrigation diversions are significant factors limiting recovery of salmon. Not only are smolts inadvertently sucked into irrigation pumps, but spawning adults lack access to important habitat.

The 2001-03 biennial budget includes $16.2 million to correct fish passage barriers and screens. This includes $6.7 million in state funds, $4.3 million of federal funding from BPA, $550,000 from the USFWS Dingel-Johnson allocation, and $3.5 million anticipated under *PL 106-502 The Fisheries Restoration and Irrigation Mitigation Act of 2000* for the WDFW to correct blockages and screens at its facilities. The budget also includes state funding for the WSDOT to correct fish passage barriers. Fish passage barriers will also be corrected as state agencies begin updating forest roads to meet the requirements of the Forests and Fish agreement on state lands.

Results: 67 fish screening and 236 fish passage projects have been completed since the programs began in 1992. During the 1999-2001 biennium, these projects opened up over 200 miles of fish habitat.

Pesticide Strategy

$1.3 million ($1.0 M State, $0.3 M Local)

The state is developing a comprehensive strategy for assessing pesticide impacts on threatened and endangered salmon in Washington State. This strategy is being developed by the Washington State Department of Agriculture in conjunction with the NMFS NW Region, USFWS Western Washington Office, US EPA Region 10, U.S. Geological Survey, Washington State University, and Ecology, DNR, and WDFW. The strategy will use surface water monitoring to determine salmon exposure to pesticides, evaluate the impact of exposure at various life stages, and then propose appropriate mitigation actions. In addition to the $1.1 million in state funds, $245,000 in additional federal funding per year is requested to expand the surface water monitoring program in Washington State. This funding will allow expanded monitoring in basins representing the various cropping patterns in the state and which provide critical habitat for salmon.

Results: A negotiated agreement with NMFS, USFWS, and US EPA was signed that will lead to consistency with ESA and CWA. The program is presently being implemented.

Recommendations

The first five years of the state salmon recovery program were focused in two areas: setting up the institutional capability to initiate and support salmon recovery efforts at the local, regional, and state levels; and addressing immediate restoration needs through projects. Correcting immediate high priority problems in harvest, hatcheries, and habitat, will continue, but the focus now will be on completing plans that tie all of our salmon recovery initiatives at local and regional scales and returning our salmon to healthy harvestable levels. Now more than ever we need to build on the citizen energy that has developed in our watersheds and give them the support they need to be successful. Given this perspective, the following recommendations are offered:

Development of draft recovery plans must be our priority

Recovery planning processes are well underway in Washington. A vital component of these recovery plans is goal setting—how many fish are necessary to ensure recovery? The *Statewide Strategy to Recover Salmon* calls for the seven regional organizations to develop draft recovery plans that achieve our state goal of healthy harvestable levels of salmon. In support of these planning efforts, federal agencies will provide interim estimates of recovery planning targets that will help groups doing recovery planning gauge the level of effort that may be for recovery.

Recommendation: The GSRO and state agencies, coordinating with the Power Council, should continue to make support for these regional planning efforts a priority. Staff should work to help integrate state and federal programs into these recovery plans. Draft recovery plans, coordinated by regional organizations, should be completed for NMFS review by the end of 2004 in several of these regions.

Recommendation: To facilitate development of draft recovery plans, the state will designate an individual to work with each salmon recovery region and to serve as the point of contact for all state agencies. We have asked the federal government also to designate a lead person to be the chief point of contact for the state and for each of the salmon recovery regions.

We must strengthen our commitment to community based watershed and regional efforts

Salmon recovery occurs at three levels: 1) statewide, 2) regional (or Evolutionarily Significant Unit—ESU—based), and 3) watershed (or WRIA-based).

Salmon Recovery Regions are organized around ESUs and Distinct Population Segments (DPSs), which are the units that federal agencies have used to delineate species under the ESA. The Salmon Recovery Regions increasingly will be the centerpiece of the state's efforts in the coming years. They will be responsible for coordinating development of draft recovery plans that address the "four Hs," overseeing implementation of the plans over time, integrating federal processes such as work of Technical Recovery Teams (salmon) and Recovery Unit Teams (bull trout), and coordinating fish recovery planning efforts developed on a WRIA or multi-WRIA basis.

Watershed organizations are essential participants in this effort. The specific organizational vehicle at the WRIA level varies; there may be Lead Entities set up under the Salmon Recovery Act, Watershed Planning Units under the Watershed Planning Act, the Power Council's sub-basin planning process, Regional Fish Enhancement Groups, or smaller watershed councils, and other individual groups. These groups are the energy and enthusiasm that drive salmon recovery, and this commitment must be captured and nurtured by regional recovery

organizations. Much of the detailed planning and project development work occurs in these groups, and it is up to each region to decide how best to organize to ensure a sense of ownership in all participants. The diversity of unique approaches taken by each region is one of the strengths of our recovery strategy, as long as we understand regional organizations have a responsibility to eventually coordinate these processes and bind them in enduring recovery plans.

Recommendation: No immediate major changes are necessary to ESHB 2514 and ESHB 2496 to support development of draft regional recovery plans. Regional recovery organizations are expected to coordinate the activities and prioritize projects of those organizations that are receiving funding for salmon recovery within their regional boundaries as they contribute to development of a salmon recovery plan.

Recommendation: To assist in development of salmon recovery plans, the SRFB should support administrative staffing functions for regional and lead entity organizations.

Recommendation: A Council of Regions has been informally established for the purposes of sharing materials, strategies, processes, and products; participants are working together on common issues to develop creative solutions and experiment with their approaches. Regional leaders established such a Council through self-initiation; if regional organizations desire to pursue the option, the Council could be chartered by the legislature with statutory criteria specified about what constitutes a regional organization and incentives for establishing a formal regional organization.

Salmon and watershed health activities should be integrated

Increasingly, natural resource management and protection must involve a holistic approach, centered not just on salmon, but also rather on the broader notion of overall watershed health. Salmon and watersheds constitute unifying themes, as salmon are regarded as an indicator of overall watershed health, and there must be a synergy of effort with closer coordination among the state's natural resource management programs.

Recommendation: While the main focus must remain on development of salmon recovery plans, integration of salmon recovery and watershed activities needs to begin. This may include establishment of a salmon and watershed funding board (to supercede the SRFB and other related boards), implementation by the regional salmon recovery organizations of plans developed under the Watershed Planning Act, or other actions. The Council of Regions should prepare recommendations on the potential for integrating the state's salmon and watershed efforts for consideration by the legislature and Governor no later than January 2004.

Increased coordination of salmon recovery funding is necessary

Regional and WRIA-based groups need funds to support basic coordination and logistical functions associated with the development of fish recovery plans. Presently, these monies come from a variety of sources: the Power Council is providing funds at both the regional (provincial) and sub-basin level, the SRFB and state agencies are providing state and Pacific Coastal Salmon Recovery funds for organi-

zation, assessment, and project work. In addition, the Power Council's fish and wildlife program will provide an ongoing funding program for activities that implement sub-basin plans.

Recommendation: The GSRO, SRFB and state agencies will work with federal agencies, other states, congressional and legislative staff, and the Council of Regions to examine state and federal monies used for salmon recovery. Recommendations for funding coordination and reporting should be reported to the Governor by June 15, 2003.

Recommendation: To ensure the most efficient use of all funding sources, the SRFB and Governor's Office will continue discussions with the Power Council seeking agreement regarding respective funding responsibilities and report back to the Governor by June 15, 2003.

Recommendation: To make better decisions about cost-effectiveness of salmon funding, the SRFB should work with the Power Council to develop an integrated mechanism for scientific review of proposed habitat projects in the Columbia Basin. Recommendations should be reported to the Governor by June 15, 2003.

Better accountability mechanisms are necessary to track our work and report our progress

We must continue to improve accountability for investments in salmon recovery. We must be able to show, in clear and straightforward terms, how public resources are being spent and demonstrate that they are being applied in the most effective ways possible. Better accountability is essential in three different areas: integration of monitoring efforts, reporting our indicators, and habitat project effectiveness.

Integrated Monitoring

The Monitoring Oversight Committee's report of December 1, 2002 identifies many more actions than can be funded given budget constraints. Choices must be made. Information from monitoring must respond to what policy makers and appropriators need most to address salmon recovery and watershed health. Agencies must reprioritize existing agency monitoring efforts to meet these twin objectives.

Recommendation: A Monitoring Committee should be established, as recommended in the Monitoring Oversight Committee's report. This Committee will work with the Council of Regions, state and federal agencies, the SRFB, and others to ensure that data collected are relevant and accessible, to support the highest priority needs of appropriate state, federal, and local officials.

Recommendation: The recommendations in the Monitoring Oversight Committee's report should be considered in determining the most important monitoring and data needs.

Recommendation: Monitoring funded by the Power Council and in Washington's watersheds should be compatible with monitoring done by the state.

Reporting Progress

Elected officials and the public need to have access to a simple set of indicators that are generally understood to say whether or not we are making progress toward salmon recovery. Progress has been made—as shown in this State of Salmon report—and we do have more detailed technical indicators in the Salmon Recovery Scorecard, but more work is needed on simple indicators to show whether or not progress is being made, for the benefit of policy makers and the public. These indicators must be regularly reported.

Recommendation: The GSRO, in conjunction with any monitoring committee, should evaluate and update existing statewide monitoring reporting; include watershed health as recommended in the Monitoring Oversight Committee's report; and subject to new statutory authorithy, develop the State of Watersheds and Salmon Report to supercede the State of Salmon Report.

Effectiveness of Habitat Projects

The SRFB has established an accounting system for the expenditures of salmon recovery funds. The next step in a strong reporting and adaptive management process is to continue development of a clear and understandable method by which projects results can be measured and reported as they are implemented over time.

Recommendation: The SRFB, working with the GSRO, Monitoring Committee, Ecology, WDFW, and the Independent Science Panel, should develop a project effectiveness evaluation system by October 1, 2003. This should be integrated with the system established by the Power Council.

The role of independent science needs clarification and coordination

Independent scientific review provides decision makers with technical feedback and perspectives that do not reflect a particular vested interest or point of view. The Independent Science Panel was established under the Salmon Recovery Act of 1998; its purpose is to provide scientific review and oversight of the state's salmon recovery efforts and to review the adequacy of salmon recovery plans developed by the state. Other independent science bodies have been established and are operating in the Columbia River Basin; they were established under the Northwest Power Planning Act to advise the Power Council on its fish and wildlife program, and to review projects proposed for funding. In all Washington salmon actions, it is crucial we ensure that we are expending our energies and monies on the most important activities and in the areas that will have the most benefit for salmon.

Recommendation: The GSRO will review the role of the Independent Science Panel to ensure their work is aligned with the most pressing needs facing the state and report to the Governor by April 15, 2003.

Recommendation: Upon request, the Independent Science Panel should advise the SRFB and Monitoring Committee on scientific concerns and approaches to issues of prioritization, and should continue to support development and implementation of the integrated monitoring program and the Board's habitat project effectiveness evaluation program (see Effectiveness of Habitat Projects).

Recommendation: The GSRO should work with the Power Council to develop an integrated mechanism for scientific review of plans in Washington.

Printed on Recycled Paper

State of Washington
Governor's
Salmon Recovery
Office

2002 State of Salmon Staff Summary Report

Part Two

Governor's Salmon Recovery Office
PO Box 43135
Olympia, WA 98504-3135
Phone: (360) 902-2216
www.governor.wa.gov/esa

This publication was printed with soy ink on recycled paper.
An electronic version is available on our website.

If you would like copies of this document in an alternative format, please contact the Governor's Salmon Recovery Office at the address or phone number listed above.

Editor
Chris Drivdahl

Researchers and Writers
Governor's Salmon Recovery Office

Reviewers
WA Dept. of Fish and Wildlife (WDFW)
WA Dept. of Ecology (ECY)
WA State Dept. of Transportation (WSDOT)
WA State Dept. of Natural Resources (DNR)
WA Dept. of Community, Trade & Economic Development (CTED)
Puget Sound Action Team (PSAT)
Office of Financial Management (OFM)
WA State Conservation Commission (CC)
Interagency Committee for Outdoor Recreation (IAC)

Cover Photos Left to Right

Flett Creek / Salmon Recovery Funding Board
Pink male salmon / Manu Esteve
Stream restoration / Salmon Recovery Funding Board
Fisherman / Washington State Archives
Volunteers stream sampling / Dick Knight, Skagit Fisheries Enhancement Group
Stream bank restoration / Salmon Recovery Funding Board

Graphic Designer
Luis Prado

Contents

"Saving salmon is a stunningly ambitious goal, full of risks and replete with consequences we barely understand. But extinction is not an option, and it's up to us to make the history we want for our children and our grandchildren."

GOVERNOR GARY LOCKE
OCTOBER 9, 1998

Introduction

As a first step to restore salmon, in 1999 the Joint Natural Resources Cabinet developed the Statewide Strategy to Recover Salmon: Extinction is Not an Option. The next year, state agencies developed detailed action plans describing their salmon recovery efforts to implement the Strategy. A Salmon Recovery Scorecard for monitoring agency progress in these areas also was published.

Shortly after the Statewide Strategy was released, the Independent Science Panel reviewed it, calling it a good first step that should steer a course toward recovery. The Panel also recommended many improvements the state should address, including more clearly integrating agency recovery activities with our strategy and monitoring the results.

This 2002 publication is meant to report progress we have made in our efforts to recover salmon. It also responds to the legislature, federal review, public comment, the Independent Science Panel, and what we have learned from our own experience. In one concise document, we show the conceptual framework for recovery—the goals and strategies from the 1999 Statewide Strategy—and give examples of actions we are taking to implement our strategy. And, we report the first data from the Salmon Recovery Scorecard.

The urgency to save wild salmon is tempered by how long it takes to see progress. The life cycle of salmon from freshwater to saltwater and back generally is three to five years; it may take our commitment through several salmon generations to know if we are doing the right things for enduring results. The challenge we all face is making this complex and potentially confusing situation clear enough so that we may make wise choices about the future of salmon.

While our work to recover salmon is far from finished, we continue to stand firm behind our vision: *To restore salmon, steelhead, and trout to healthy harvestable levels and improve habitats on which fish rely.*

MALE SOCKEYE SALMON ON THE SPAWNING GROUNDS / PHOTOGRAPH © MANU ESTEVE

Salmon Recovery Milestones 1990-2002

1990 | 1991 | 1992 | 1993 | 1994 | 1995

1990 Ocean and Puget Sound marine fishing restrictions are underway to address coho population declines coast-wide. Terminal and freshwater net fisheries directed at chinook salmon have been restricted or curtailed since the mid-1980s.

Regional Fisheries Enhancement Groups are created by the legislature. They work under guidance of the Washington Department of Fish and Wildlife. Today, fourteen of these non-profit groups develop fish protection and enhancement projects in partnership with tribes, sports fishers, private landowners and local, state and federal agencies.

1991 Federal government lists Snake River sockeye salmon as endangered.

1992 Federal government lists Snake River summer and fall chinook salmon as threatened.

1993 **Wild Stock Restoration Initiative and Wild Salmonid Policy** adopted by Department of Fish and Wildlife.

The Columbia River hydropower **biological opinion (BiOp)** is issued by federal agencies. It contains the federal government's recommendations for actions needed to recover threatened and endangered salmon in the Columbia River Basin.

1994 Federal government adopts the **Northwest Forest Plan**, setting out salmon habitat protection measures for lands managed by the USDA Forest Service and the USDI Bureau of Land Management within the range of the northern spotted owl.

A federal court rejects the 1993 BiOp saying the "system was crying out for a major overhaul."

1995 Federal government initiates overhaul of the way the federal power system is to be operated on the Columbia River, placing needs of fish on equal footing with power generation, flood control, navigation, and irrigation.

1996 Department of Natural Resources adopts a **Habitat Conservation Plan** for 1.4 million acres of state-owned forestland.

1997 Governor Locke brings together the state agencies that most affect salmon management in a forum called the **Joint Natural Resources Cabinet**. This cabinet of 12 agency directors creates the guidance and accountability tools used in Washington and provides an ongoing avenue for interagency progress.

Federal government lists Snake River steelhead as threatened and Upper Columbia steelhead as endangered.

1998 Governor Locke and Canadian Fisheries and Ocean Minister Anderson reach agreement to reduce fisheries that has the effect of increasing by 30% the number of Puget Sound chinook that return to our streams to spawn.

The legislature establishes the **Governor's Salmon Recovery Office** within the Governor's Office to coordinate the state's strategy for salmon recovery and assist in development of a broad range of recovery activities.

The **Independent Science Panel**, also established by the legislature and appointed by the Governor from recommendations by the American Fisheries Society, is tasked with providing advice on monitoring, data, and recovery activities.

Created by the Watershed Planning Act, **Watershed Planning Units** are bodies that include county and city governments, water purveyors, tribal representatives, and private citizens. Their task is to decide what actions need to be taken in their watersheds to provide adequate water for people and fish. Presently, there are 32 Planning Units covering 41 Water Resource Inventory Areas (WRIAs).

In the Salmon Recovery Planning Act, the legislature focused on the need to coordinate local action to restore habitat conditions necessary for salmon recovery. **Lead Entities** spearhead these local efforts and are responsible for recommending projects to the Salmon Recovery Funding Board for approval. There are 26 Lead Entities covering 45 WRIAs.

> **"I am firmly committed to seeing that the state does everything it can to protect our salmon runs, and doing so in a manner that gains the support of both citizens and businesses."**
>
> **GOVERNOR GARY LOCKE**
> MAY 2002

1996	1997	1998	1999	2000	2001	2002

The **Forests and Fish Agreement**, a voluntary pact negotiated by small and large forest landowners, federal, state, tribal and county governments, is announced. It covers 8 million acres of private forestland, protecting 60,000 miles of streams.

A pilot program for steelhead recovery is established by the legislature in Clark, Cowlitz, Lewis, Skamania, and Wahkiakum counties. Now called the **Lower Columbia Fish Recovery Board**, this group serves as a model for other regional recovery organizations now operating in the state.

Federal government lists Lower Columbia River steelhead, and Upper Columbia, Northeast Washington, Lower Columbia, and Snake River bull trout as threatened.

1999 Locke/Anderson re-negotiate a critical component of the landmark **Pacific Salmon Treaty**, reducing Canadian catch of chinook and coho whose home streams are in Washington. It also provides a federal fund from which salmon restoration activities are to be paid.

ESA listings of chinook, coho, chum, and steelhead stocks in Washington now cover over 75% of the state.

The Forests and Fish Agreement becomes state law.

The **Salmon Recovery Funding Board**, a five-member citizen board appointed by the Governor and chaired by William Ruckelshaus, is established by the legislature. This board supports salmon recovery by distributing state and federal funds for local habitat protection and restoration projects and related programs and activities that produce sustainable and measurable benefits for fish and their habitat. The directors of five state agencies assist them.

The **Statewide Strategy to Recover Salmon: Extinction is Not an Option** is completed in September and is our guide for what needs to be done over the long-term to recover salmon.

Washington, Oregon, four Columbia River Treaty Tribes, and the federal government sign the **Columbia River Accord**, a multi-year plan that establishes conservation goals for depressed wild salmon stocks on the Columbia and Snake rivers.

Federal government lists Puget Sound chinook, Hood Canal summer chum, Washington Coastal Lake Ozette sockeye, Lower Columbia River chinook, Lower Columbia River chum, and Middle Columbia River steelhead as threatened. In addition, Upper Columbia spring chinook is listed as endangered.

2000 Congress creates a federal hatchery reform initiative and establishes an independent **Hatchery Science Review Group** to evaluate effects of hatchery facilities and programs on wild fish.

National Marine Fisheries Service and US Fish and Wildlife Service re-issue Biological Opinions for Federal Columbia River Power System operations.

The first biennial implementation plan for the Strategy is published. These **State Agency Action Plans**, produced for each biennium, detail specific salmon recovery activities undertaken by state agencies (and can be found in Part Three).

The state's performance management system—**Salmon Recovery Scorecard**—is published. It contains a mix of natural environment and human-focused indicators that are intended to measure our progress.

The first **State of Salmon Report** is published. This document is intended for a broad public audience and designed to provide an introduction to salmon recovery activities in Washington.

2001 The legislature mandates development, by December 2002, of a **Comprehensive Monitoring Strategy** and action plan for watershed health with a focus on salmon recovery

2002 **Recovery Plan Model**, developed under the guidance of the Department of Fish and Wildlife, identifies essential elements of a recovery plan, a document that will comprehensively define actions necessary to recover one or more salmon populations within a region.

The Governor's Salmon Recovery Office produces the 2002 State of Salmon Reports.

The Comprehensive Monitoring Strategy is developed for consideration by the Governor and legislature in 2003.

Scorecard Reports

Monitoring is the collection of information in a systematic and scientific manner that allows us to answer important questions and make better decisions: Are our actions making a difference? What is the best action to take in which place? Unfortunately, there is no quick fix in salmon recovery and seeing the benefit of our actions will take many years. For example, improvements we make to streamside habitats—such as planting trees—will take decades to provide functions such as shade and large woody debris. Nevertheless, if we pay attention to the results of our decisions, we can guide our future actions so as to best meet our salmon recovery goals.

The Salmon Recovery Scorecard was developed to begin to measure progress towards salmon recovery. After considerable discussion with stakeholders, the Joint Natural Resources Cabinet selected thirty-six indicators that represented a "balanced" evaluation of the parameters that are important contributors to the recovery puzzle. Budget reductions resulted in only 16 of the indicators being implemented; data for this report were available for 14. Various agencies were assigned responsibility for each indicator. Data reports were submitted by agencies to the Governor's Salmon Recovery Office where they were organized for presentation here.

These indicators are connected to the vision, goals, and strategies presented in the Statewide Strategy to Recover Salmon as well as the State Agency Action Plan that implements the state agency part of the Strategy. Highlights of Action Plan accomplishments are presented beginning on page 19, and the full text of accomplishments is in Part Three. Additional supporting material for the indicators may be found in Part Three.

FEMALE SOCKEYE SALMON BUILDS ITS REDD (NEST) WHILE A MALE WAITS NEARBY / PHOTOGRAPH © MANU ESTEVE

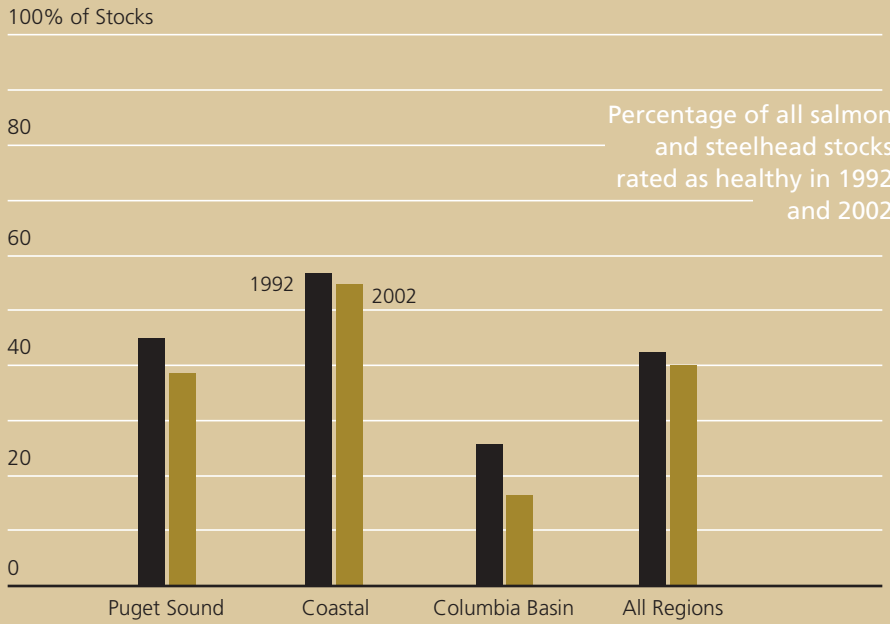
"Restore salmon, steelhead, and trout to healthy harvestable levels and improve habitats on which fish rely."

STATEWIDE STRATEGY TO RECOVER SALMON
EXTINCTION IS NOT AN OPTION
SEPTEMBER 1999

GOAL

Wild salmon populations will be productive and diverse.

The majority of wild stocks in Washington are not healthy, and there has been little real change since 1992.



DATA SOURCE: WASHINGTON DEPARTMENT OF FISH AND WILDLIFE, SALMON AND STEELHEAD INVENTORY (SaSI).

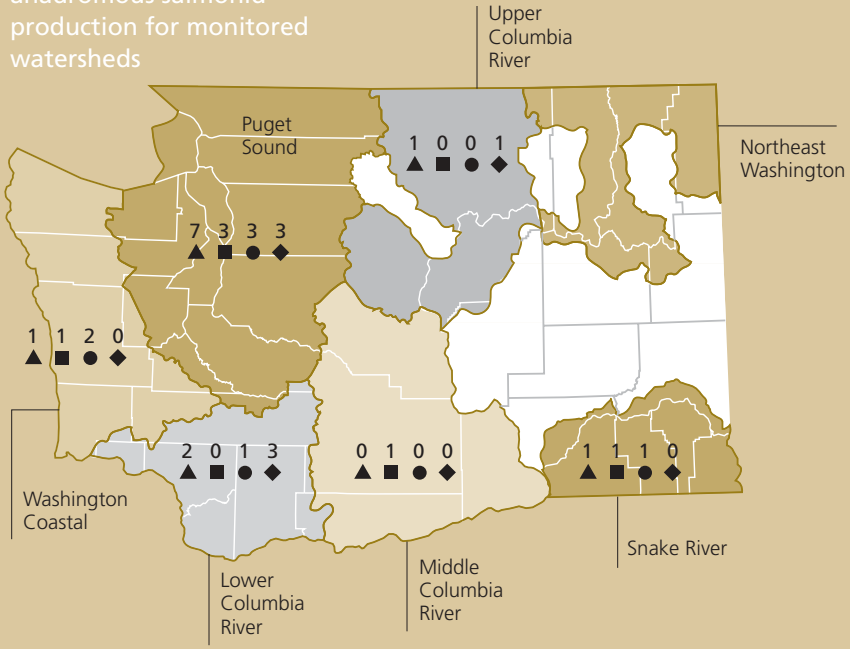
- **Healthy stocks** are defined in SaSI as those currently experiencing stable escapement, survival, and production trends and not displaying a pattern of chronically low abundance.
- A stock may be considered healthy by absence of declining trends, but still may not be considered healthy by ESA or other recovery standards.
- First comprehensive status update since 1992 is underway but not complete.
- Status ratings are draft because they do not yet have tribal agreement.
- Status changes from 1992-2002 are largely a reflection of changes in methods of counting and analyzing data—overall, what little real change that has occurred in status from 1992 is negative.

GOAL

Wild salmon populations will be productive and diverse.

Trends in sampled wild juvenile production appear to be stable or increasing in 18 of 32 cases.

Trends in wild juvenile anadromous salmonid production for monitored watersheds



- ▲ Increase
- ■ No Change
- ● Decrease
- ◆ Can't Tell

Numbers with symbols represent sampled wild juvenile populations.

DATA SOURCE: WASHINGTON DEPARTMENT OF FISH AND WILDLIFE.

- **Production** is the number of juvenile salmon produced on an annual basis.
- Trends should not be interpreted as broadly representative within or between regions.

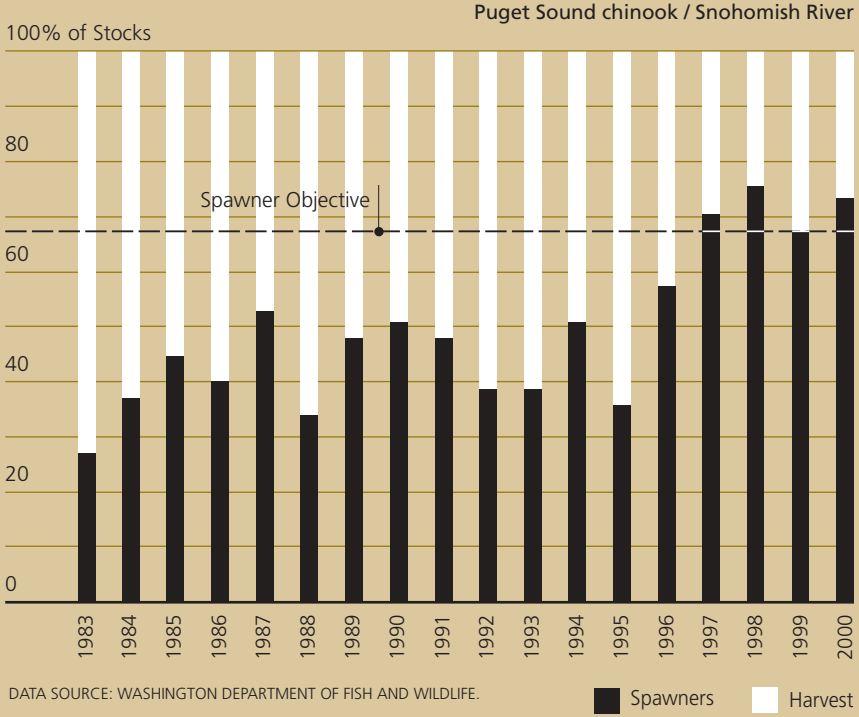
GOAL

Wild salmon populations will be productive and diverse.

Over the last few years, fishery harvest has not limited attainment of wild spawner objectives for measured stocks.

Percentage of wild stocks where harvest protection goals have been met

Puget Sound chinook / Snohomish River



DATA SOURCE: WASHINGTON DEPARTMENT OF FISH AND WILDLIFE.

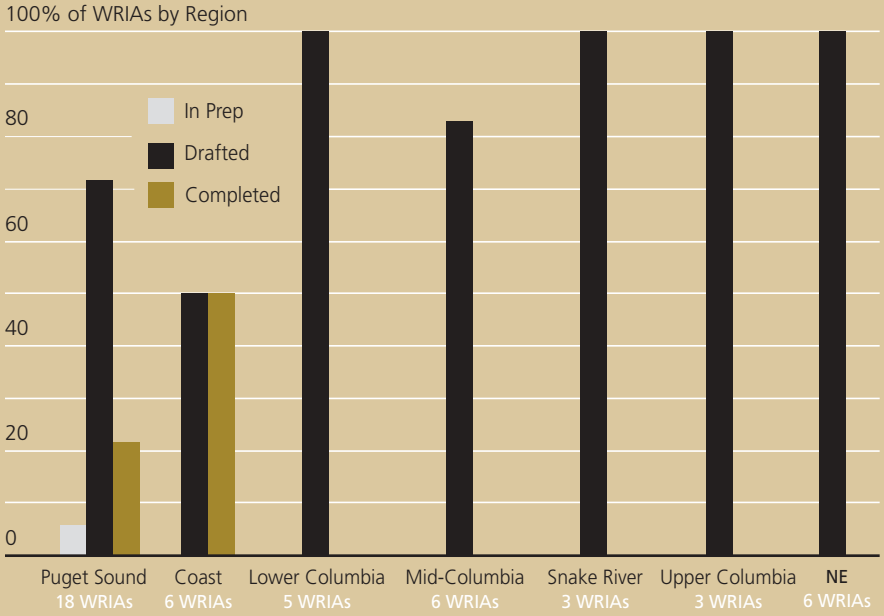
- Data shown are an example for wild Puget Sound chinook; other Puget Sound chinook examples show similar trends.
- A **harvest protection goal** is a level of fishing that is consistent with management goals, federal permits, recovery plans, etc.
- A **spawner objective** is the number or proportion of fish harvest managers allow, consistent with harvest protection goals.

GOAL

We have coordinated, science-based salmon recovery efforts.

Lead Entity strategies have been drafted that when aggregated, cover several regions.

State salmon recovery regions with a coordinated and science-based process for identifying and evaluating, and then setting priorities for salmon recovery projects within those regions



DATA SOURCE: INTERAGENCY COMMITTEE FOR OUTDOOR RECREATION.

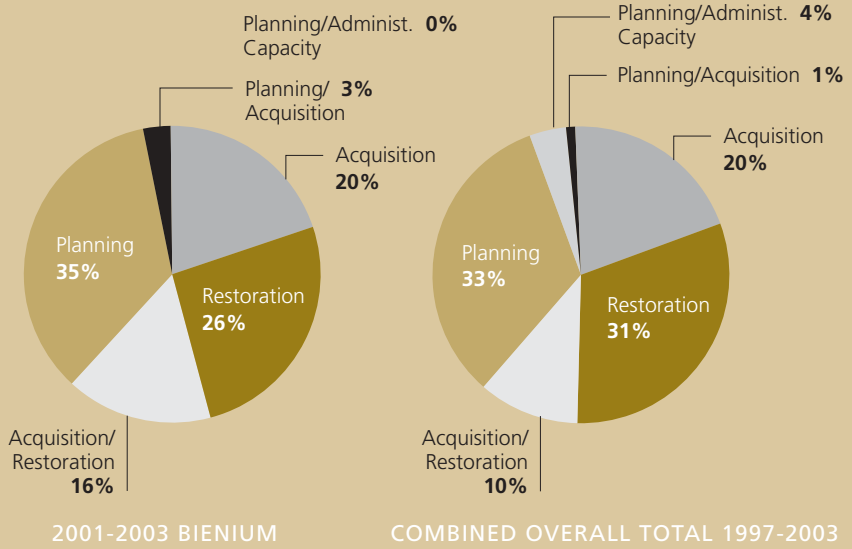
- Two expressions of the indicator were chosen to track: The number of WRIAs with baseline assessments completed; and the status of Lead Entity strategies for habitat protection and restoration projects.
- Regionally integrated assessment/ strategies exist only for the Lower and Upper Columbia Regions.
- No analysis has been done to determine the quality of assessments or Lead Entity strategies, at either a WRIA scale or regional scale.

GOAL

We have coordinated, science-based salmon recovery efforts.

Almost 62% of the salmon money has been spent on habitat restoration and preservation (acquisition).

Percentage of salmon recovery funds spent on restoration, preservation, assessments, separate monitoring and evaluation, separate planning, and administration



DATA SOURCE: INTERAGENCY COMMITTEE FOR OUTDOOR RECREATION. GRANT PROGRAM IN DATA BASE IS SRFB ONLY.

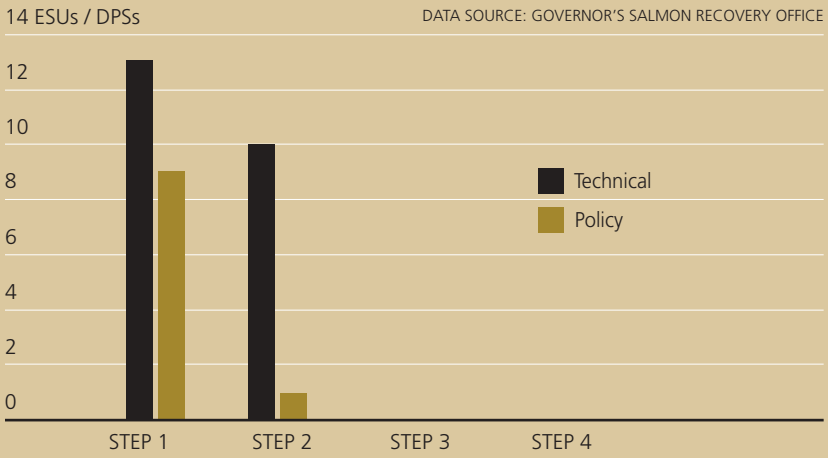
- Current data do not allow tracking of indicator information as listed in the indicator. IAC/PRISM data categories were used as surrogates.
- Preservation may be interpreted as acquisition.

GOAL

We have coordinated, science-based salmon recovery efforts.

Although progress is being made, there are no ESUs in Washington with federally established recovery goals.

Number of ESUs with federally established recovery goals



The process of establishing goals is a four-step operation:

Step 1 Creation of a regional salmon recovery board/entity (policy group) that interfaces with a technical group, and both groups interact to develop region-wide recovery plans.

Step 2 Development of draft recovery goals for identified populations that are the product of interaction between technical and policy groups. This stage drafts products that go to watershed groups and others for broader public review.

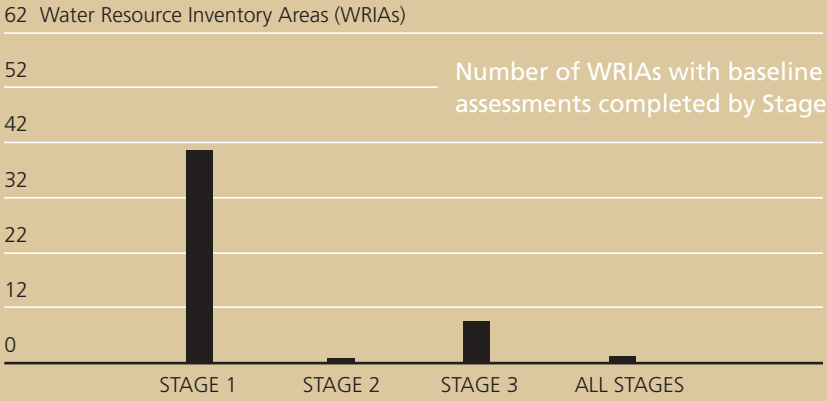
Step 3 Development of draft Evolutionarily Significant Unit (ESU) / Distinct Population Segment (DPS) recovery goals. This stage reflects efforts to "add up" watershed salmon recovery efforts at the ESU/DPS scale.

Step 4 Establishment of final salmon recovery goals are the products resulting from agreement and commitment of those in regions, watersheds, and others who affect salmon recovery (habitat-harvest-hatchery), and federal approval and adoption.

GOAL

We have coordinated, science-based salmon recovery efforts.

86% of watersheds involved in salmon recovery have completed their initial analysis of habitat conditions, but most have not yet analyzed the causes of the conditions and salmon response.



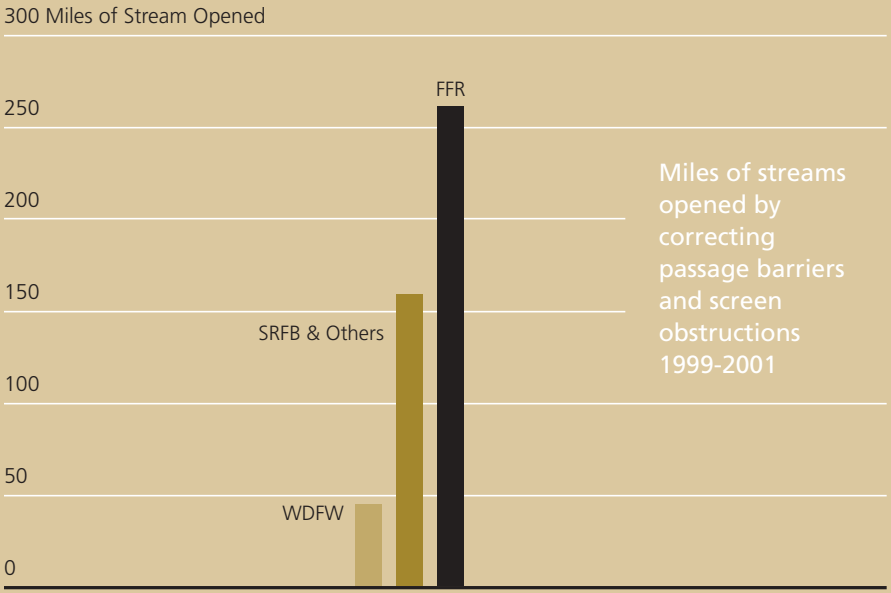
DATA SOURCE: CONSERVATION COMMISSION, REGIONAL ORGANIZATIONS, INTERAGENCY COMMITTEE FOR OUTDOOR RECREATION.

- **Baseline assessments** are those that are consistent with the Guidance on Watershed Assessment for Salmon (May 2001) which defines three stages: Stage I assesses habitat conditions, Stage II assesses causes of these conditions, and Stage III assesses salmon response.
- Data are based on the number of WRIAs with assessments equivalent to Stage I, II, and III.
- Sources of data include Limiting Factors Analyses, Watershed Assessments under the Watershed Planning Act, EDT, and others.
- No analysis has been done to determine quality of completed assessments or whether they are being applied to projects and watershed plans.
- 50 WRIAs have salmon and are considered in this indicator; 12 are not included.

GOAL

Our habitat, harvest, hatchery, and hydropower activities will benefit wild salmon.

During 1999-2001, over 400 miles of stream habitat were opened by projects.



SRFB: Salmon Recovery Funding Board Projects.
WDFW: Washington Department of Fish & Wildlife Projects.
FFR: Forests and Fish Projects.

DATA SOURCES: ESTIMATIONS FROM WASHINGTON DEPARTMENT OF FISH AND WILDLIFE HPAs AND SSHEAR DATA, AND WASHINGTON FOREST PROTECTION ASSOCIATION (WFPA)

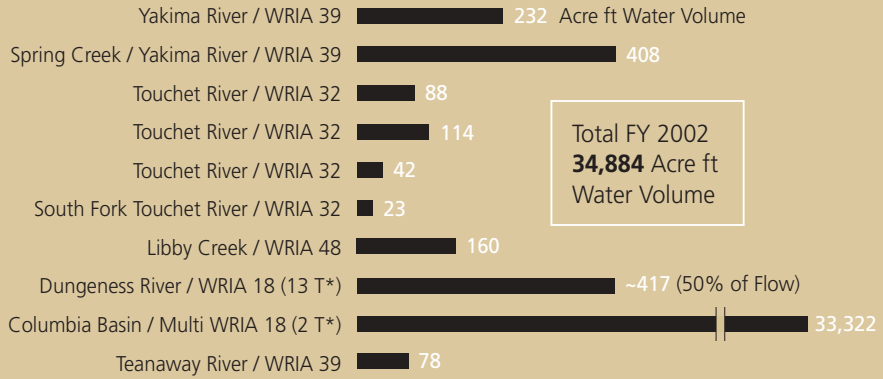
- During 1999-2001, an average fish passage barrier removal project not on forestlands opened 1.25 linear miles of stream.
- The average forestland passage barrier removal opened up 0.75 miles of habitat (WFPA estimates).
- SRFB project applicants estimate their projects have opened up 355 miles of streams (compared with 162 miles estimated by WDFW), so there is a need to validate both methods of estimation with on-the-ground inspections
- WDFW estimates more than 23,000 miles of stream habitat are blocked statewide.

GOAL

Our habitat, harvest, hatchery, and hydropower activities will benefit wild salmon.

In 2001, we restored a significant amount of water to critical basins during important times of the year for the purpose of protecting fish.

Volume of water restored to streams where water availability and flows are limiting factors



WRIA: WATER RESOURCE INVENTORY AREA. *TRANSACTIONS.
DROUGHT FUNDED WATER LEASES RANGING FROM JULY 1 TO OCTOBER 1, 2001.
DATA SOURCE: DEPARTMENT OF ECOLOGY.

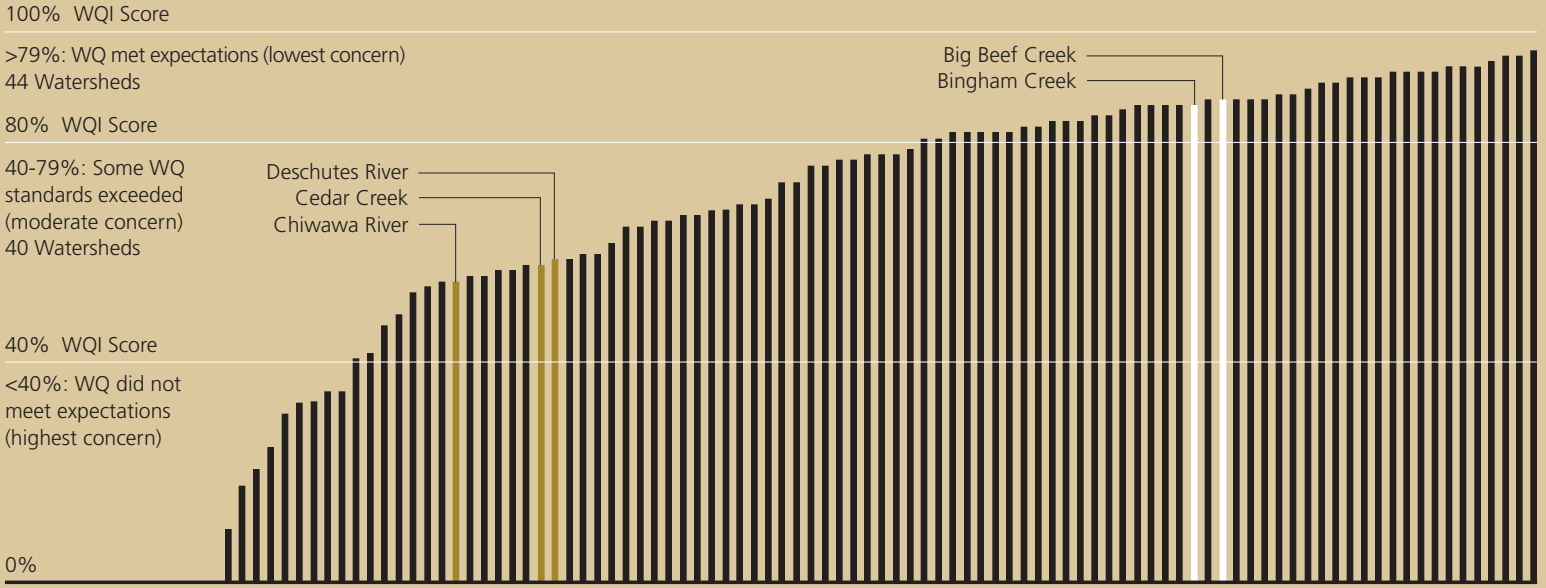
- **Restored water** includes water from actions that were taken to improve streamflows, including conservation, reuse, metering, regulating water use, enforcement, water purchases, or trust water donations; the focus is on summer low flow periods.
- Definition of streams where water availability and flows are limiting factors is from the 1999 Statewide Strategy to Recover Salmon.
- 35,000 acre feet of water is almost 11.5 billion gallons—enough to support half the population of Washington for 1 year.
- Further monitoring is essential to establish the contribution of restored water to healthy watersheds and fish.
- Summer low flows can be limiting factors for fish.

GOAL

Our habitat, harvest, hatchery, and hydropower activities will benefit wild salmon.

Water quality is good in two of the five salmon index watersheds.

Water Quality indicator scores for 5 salmon index watersheds in 2001 compared to 88 statewide water quality monitoring sites



DATA SOURCE: DEPARTMENT OF ECOLOGY.

- Five index watersheds that are monitored for juvenile salmon production are also monitored for water quality in this indicator.
- **Water quality index (WQI)** is a number that aggregates water quality data at a monitoring station for temperature, pH, fecal coliform bacteria, dissolved oxygen, nutrients, and sediments over a 12 month period.

Each station produces a single, annual water quality score between 1 and 100; in general, stations scoring 80 and above meet expectations for water quality and are of lowest concern, scores 40-80 are of marginal concern, and scores below 40 are of highest concern.

- This is a long-term trend indicator that will attempt to relate water quality trends to changes in salmon productivity.
- Data for Chiwawa and Deschutes do not cover the same time frame as other watersheds, so they may not be directly comparable.
- Parameters monitored include temperature, dissolved oxygen, pH, fecal coliform bacteria, total nitrogen, total phosphorus, total suspended sediment, and turbidity.

GOAL

Our habitat, harvest, hatchery, and hydropower activities will benefit wild salmon.

Hatchery compliance with the ESA is improving, but considerable work remains.

Hatchery Program ESA Compliance Status

Regions	Listed Species Potentially Impacted						
	Chinook	Steelhead	Bull Trout	Chum	Sockeye	Coho	Coastal Cutthroat
Puget Sound	Pending	In Compliance	In Compliance	In Compliance	In Compliance	In Compliance	In Compliance
Washington Coastal	In Compliance	In Compliance	In Compliance	In Compliance	In Compliance	In Compliance	In Compliance
Lower Columbia	0%	0%	In Compliance	0%	In Compliance	In Compliance	In Compliance
Middle Columbia	In Compliance	0%	In Compliance	In Compliance	In Compliance	In Compliance	In Compliance
Upper Columbia	In Compliance	In Compliance	In Compliance	In Compliance	In Compliance	In Compliance	In Compliance
Snake River	In Compliance	Pending	In Compliance	In Compliance	0%	In Compliance	In Compliance
Northeast Washington	In Compliance	In Compliance	In Compliance	In Compliance	In Compliance	In Compliance	In Compliance

DATA SOURCE: WASHINGTON DEPARTMENT OF FISH & WILDLIFE.

Pending 0% In Compliance

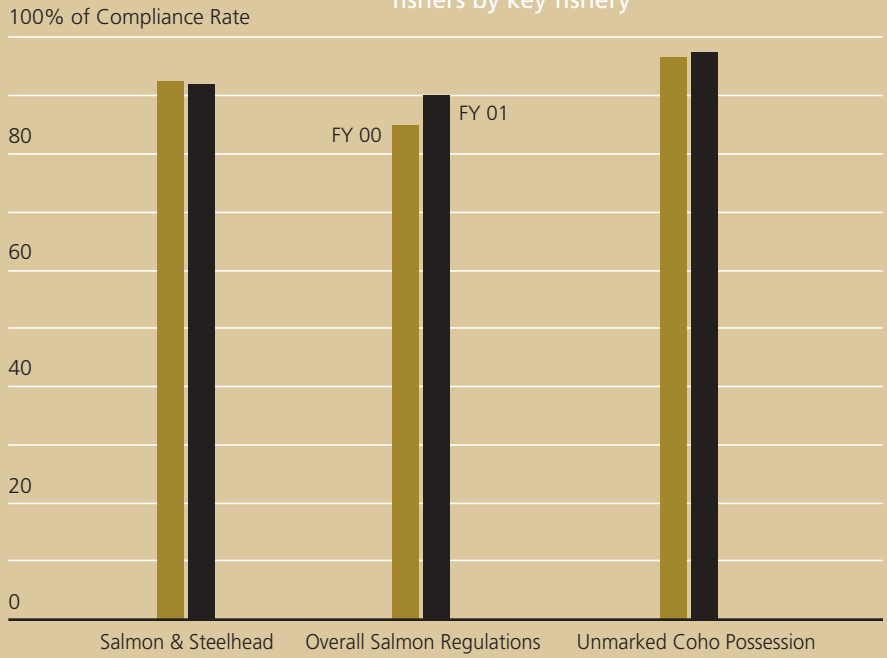
- Consistent with wild salmon recovery is measured by compliance with ESA.
- Pending category includes compliance products submitted to NMFS and awaiting response.
- ESA compliance is measured through approved Hatchery and Genetic Management Plans (section 4 [d]), section 7 consultations, section 6 agreements, and section 10 permits issued by NMFS/USFWS.
- Additional Columbia River programs should be submitted by Fall 2003.

GOAL

Our habitat, harvest, hatchery, and hydropower activities will benefit wild salmon.

Fishers are, for the most part, complying with fishing regulations.

Average compliance rate for fishers by key fishery



DATA SOURCE: WASHINGTON DEPARTMENT OF FISH AND WILDLIFE.

- Salmon & steelhead compliance based on 2506 arrests & written warnings during 35,548 contacts in FY00; 3,570 arrests and written warnings during 49,603 contacts in FY01.

GOAL

Citizens and salmon recovery partners are engaged.

Volunteers working on watershed stewardship and salmon recovery projects for state agencies donated time equivalent to more than 36 state employees in 1999.

State Agency	Organizations	Category	People	Hours
WSU Coop. Extension	Individuals	CP	**9777**	**41202**
State Parks	Doug Mackey,	ARV	**1**	**200**
	Nooksack Salmon Enhancement Group,	CP	**23**	**46**
	UW-Pack Forest	ARV	**1**	**120**
WDFW	Reg. Fisheries Enhancement Groups	ARV ARV	**500**	**10375**
DNR	Individuals	ARV	**847**	**17762**
Ecology	Individuals,	ARV, CP	**141**	**1789**
	Wetland Function Assesment	ARV	**36**	**3000**
PSAT	People for Puget Sound,	CP	**23**	**241**
	Maxwelton Salmon Adventure,	CP	**5**	**35**
	Hood Canal School,	CP	**14**	**40**
	Seabeck Salmon Team	CP	**34**	**272**

DATA SOURCES: WASHINGTON DEPARTMENT OF FISH AND WILDLIFE, DEPARTMENT OF NATURAL RESOURCES, DEPARTMENT OF ECOLOGY, PUGET SOUND ACTION TEAM, WASHINGTON STATE UNIVERSITY COOPERATIVE EXTENSION PROGRAM.

◗ This graph seriously undercounts the volunteer time donated by citizens of Washington. Many volunteers with county programs, fish clubs, watershed councils, stream teams, school districts, and others are not included.

Agency Registered Volunteers (ARV)

ARVs are those volunteers registered specifically with a state agency, requiring: ◗ Worker safety training in compliance with Labor and Industries worker safety standards. ◗ Medical Aid insurance payments (by the sponsoring state agency) for each registered volunteer.
◗ Documentation and tracking of volunteer workers activities.

Community Participant Volunteers (CPV)

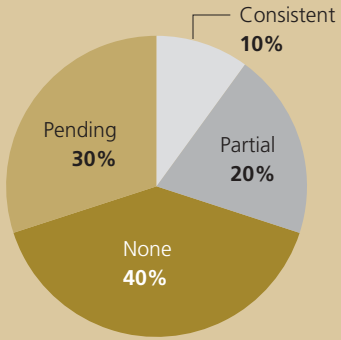
CPVs include salmon-related volunteer activities conducted by, for or on behalf of organization partners directly involved with state agencies working on salmon recovery.

GOAL

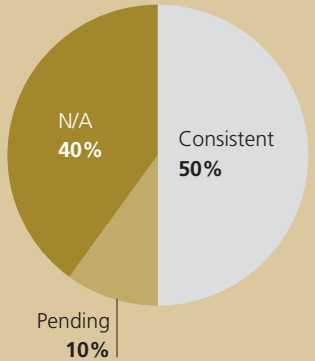
We will meet Endangered Species Act and Clean Water requirements.

Most state programs are not yet fully ESA consistent.

Endangered Species Act Consistency Determination



Clean Water Act Consistency Determination



DATA SOURCE: WASHINGTON DEPARTMENTS OF ECOLOGY, FISH AND WILDLIFE, WA STATE DEPT. OF TRANSPORTATION, NATURAL RESOURCES AND AGRICULTURE.

Consistent with requirements means state actions conform to ESA and CWA requirements; actions of the state do not result in violation of these federal statutes.

Key state programs are those important to salmon protection and recovery. They may be regulatory programs implemented by state agencies, a federal program delegated to the state for implementation, or a state program delegated to a local government.

Key state programs are: Shoreline Master Program guidelines, stormwater permits, water rights and storage permits, water quality standards, hydraulic project approvals, harvest regulations, state salmon hatcheries, pesticide applications, forest practices, transportation capital projects.

1999-2001 Accomplishments Highlights

Salmon recovery takes patience, perseverance and teamwork. The 1999 Statewide Strategy to Recover Salmon emphasized the importance of setting priorities because the need for funding and staff always will be greater than what is available. State agencies allocated available resources to implement early and immediate actions to address key factors for decline where resource risks were most severe. They also made a strong commitment to investing in long-range planning to ensure strategies were directed at actions that will have the most impact for recovering salmon.

Partnerships are essential to enhance the government's ability to attain sustainable recovery. The Statewide Strategy recognized this by recommending actions at three scales: statewide, Evolutionarily Significant Unit (ESU), and watershed. To help local partners organize, the Governor's Salmon Recovery Office worked with state and federal agencies to identify seven salmon recovery regions. Each region is defined by salmon recovery needs within a specific geographic area, based on existing as well as potential Endangered Species Act listings. Formed to address these needs, regional organizations will have a vital role (see pages 20 and 37) in salmon recovery planning during the coming years.

The Statewide Strategy identified goals and strategies to achieve success. This chapter highlights some of the diverse actions[1] agencies took during the 1999-2001 biennium to prevent further declines of salmon stocks—the first priority. State actions also sought to limit legal exposure and economic impacts for state and local governments and private landowners through compliance with federal law.

[1] Many actions highlighted here support two or more goals and numerous strategies, but they only will be listed in one location. An attempt has been made to align the action with the goal that it most clearly implements.

PAIR OF COHO SALMON SPAWNING / PHOTOGRAPH © MANU ESTEVE

Strategies

- **Sustain salmon productivity by providing wild spawner escapement, conserving genetic diversity, and meeting basic needs of salmon for spawning, rearing and migration in watersheds and ecosystems. Stewardship of salmon will be the first priority in managing the resource.**
- **Meet the goal of the Endangered Species Act to return endangered and threatened species to the point where salmon no longer need the statute's protection.**

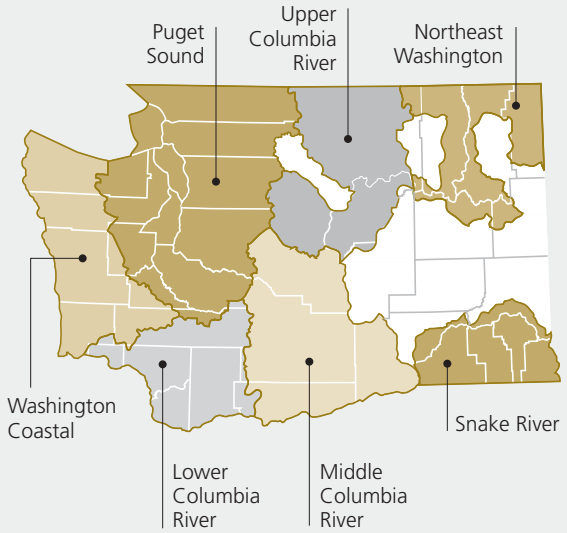
State Agency Salmon Stewardship Accomplishments

Protection and Restoration Return Salmon to the Dungeness River

2001 marked the largest return of wild spring chinook to the Dungeness River since 1988. After nearly becoming extinct, 453 adults were found in the river. State and tribal agencies, irrigators, and volunteers worked together to bring fish back through harvest restorations, model hatchery management, water conservation, water purchases and habitat restoration.

Regional Salmon Recovery Organizations

There are currently four organizations engaged in recovery planning for an entire salmon recovery region (roughly equal to groups of Evolutionarily Significant Units, or ESUs, in similar areas); a fifth group is in the beginning stages of organizing. These regional organizations complement existing groups such as the Puget Sound Tri-County salmon recovery effort led by King, Snohomish and Pierce County executives and the mayors of Seattle, Everett, and Tacoma. These organizations are partnerships among watershed groups, governments, organizations, and landowners with a stake in recovering salmon; they perform many different functions, from assessing factors for decline of salmon, organizing and approving recovery projects, to producing a recovery plan.



DATA SOURCE: GOVERNOR'S SALMON RECOVERY OFFICE

Salmon Recovery Regions

SALMON RECOVERY FUNDING BOARD

Regional Action Plan

Supporting local and regional plans and actions is one of the best ways to achieve diverse and productive wild salmon populations. Recently, state agencies and regional organizations developed an action plan to help these regional efforts. This plan includes specific state agency and regional organization commitments to enhance the effectiveness of everyone's efforts.

Regional Recovery Goals

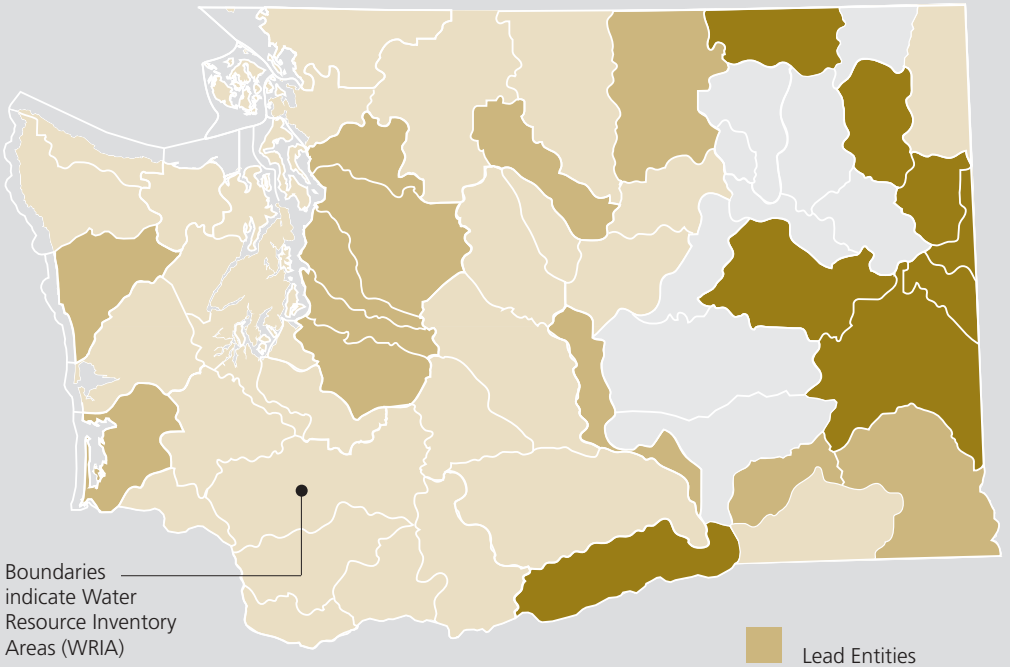
Recovery goals provide objective and measurable criteria for identifying the most effective habitat, harvest and hatchery recovery actions. State and federal agencies and tribes are working closely to develop recovery goals statewide. Preliminary goals for Puget Sound chinook have been released; others are expected within the 2001-2003 biennium. Existing regional organizations are engaged in the process and will link salmon recovery goals with social and economic goals.

> "Regional salmon recovery organizations provide an opportunity to integrate federal, state, local and tribal planning processes."

RON WALTER
CHELAN COUNTY COMMISSIONER AND MEMBER OF UPPER COLUMBIA SALMON RECOVERY BOARD, 2002

Identifying Limiting Factors

The Conservation Commission has completed reports on habitat factors that limit salmon and steelhead production in watersheds for 37 of the 62 Watershed Resource Inventory Areas. By the end of the 2001-2003 biennium, all watersheds with a Lead Entity will have a completed report. These will provide important baseline assessment information for setting priorities for habitat restoration projects.



DATA SOURCE: WASHINGTON DEPARTMENT OF ECOLOGY

2496 / 2514 Activities Statewide

Watershed Planning Units

The Watershed Planning Act (ESHB 2514) created Watershed Planning Units to help decide which watershed actions are necessary to provide adequate water for people and fish. Members include state, county and city governments, water purveyors, tribal representatives, and private citizens. To date, 31 Planning Units have been created, covering 41 of the state's 62 Water Resource Inventory Areas. These groups have applied for additional state funding to make stream flow recommendations for their watersheds.

Lead Entities for Salmon Recovery

The Salmon Recovery Planning Act (ESHB 2496) created Lead Entities to coordinate local salmon habitat restoration actions. Twenty-six of these groups, covering 45 watersheds, spearhead local recovery efforts and recommend projects to the Salmon Recovery Funding Board. Fourteen Regional Fisheries Enhancement Groups assist Lead Entities by developing projects. Scientific technical panels review and evaluate Salmon Recovery Funding Board grant proposals from Lead Entities.

Strategies

- **Achieve cost-effective salmon recovery and use government resources efficiently.**
- **Use the best available science and integrate monitoring and research with planning and implementation.**
- **Ensure that citizens, salmon recovery partners and state employees have timely access to information, technical assistance and funding they need to be successful.**

State Agency Science Accomplishments

Aquatic Habitat Guidelines

State and federal technical specialists developed science and management guidelines for practices to promote, protect or restore habitat in freshwater ecosystems. The guidelines affect design, construction and operation of projects located in or near aquatic systems, or projects that affect these systems. Integrated Streambank Protection Guidelines and Fish Passage at Road Culverts were completed and will be published in the 2001-2003 Biennium.

Independent Science Panel

The state's Independent Science Panel (ISP) was created by the legislature in 1998 to provide scientific oversight of the state's salmon recovery efforts. Governor Locke appointed the five members of the ISP in 1999. During the biennium the ISP worked on two major tasks which culminated in reports to the governor and legislature in 2000: (1) comments on the Statewide Strategy, and (2) salmon monitoring. Documents prepared by the ISP can be found on the web at: http://www.governor.wa.gov/esa/science/documents.htm

Catch and Release Commercial Fishing Nets

Healthy stocks of hatchery fish and wild fish return to spawn mixed with fish that need protection. When fisheries target healthy salmon stocks, fish from weak stocks inadvertently are caught as well. To preserve wild fish, the state is testing and evaluating different types of fishing gear that keep fish alive so that hatchery fish can be harvested and wild fish can be released to survive and spawn. Scientists are researching tangle nets and trap nets to evaluate which performs better. The state will work with commercial fishers to improve the gear they use.

Top Right: Live wild salmon being released from a tangle net.

TIM WATERS / WA DEPT. OF FISH AND WILDLIFE

> "A scientifically credible strategy should be based on identifying what is possible, attainable, and sustainable."
>
> INDEPENDENT SCIENCE PANEL
> MAY 2000

WA DEPT. OF NATURAL RESOURCES

Stormwater Management Manual for Western Washington

The Department of Ecology prepared a major revision to its 1992 Stormwater Management Manual for Western Washington. This revised technical manual provides a commonly accepted set of technical standards and guidance on stormwater management practices in order to control quantity and quality of stormwater produced by new development and redevelopment. The Department believes that, when the standards and recommendations in the manual are properly applied, stormwater runoff will generally comply with water quality standards and protect beneficial uses of the receiving water, including use as salmon habitat.

Monitoring Productivity of Watersheds

Wild salmon smolt production has been measured annually in river systems throughout the state for as long as 25 years. Originally developed as a tool to improve salmon management, this effort has increasingly become integral to monitoring salmon recovery. Presently, over 90 populations of chinook, coho, pink, chum and sockeye salmon, steelhead and cutthroat trout are monitored by the Department of Fish and Wildlife in over 30 streams in fourteen watersheds statewide. Research shows spawner abundance, instream flows, migration barriers, habitat quality, and species interactions all affect smolt production.

Salmon Recovery Grant Information

The Interagency Committee for Outdoor Recreation (IAC) Project Information System (PRISM) database tracks information for all Salmon Recovery Funding Board projects (the Board has funded over 650 projects). This web-accessible program has an online application process, tracks project expenditures, and has hundreds of standard reports. Interactive maps are used to display the location of salmon recovery projects, and project photos and images are available. To see PRISM, contact the web site at: www.wa.gov/iac/IACprism.

Best Available Science

The Office of Community Development (now part of the Department of Community, Trade and Economic Development) led the effort defining and identifying "Best Available Science." This standard helps local governments understand requirements of complying with the Growth Management Act. It also applies to salmon recovery work.

Over 1100 professionals were trained in Aquatic Habitat Guidelines during twenty-six workshops for engineers, biologists and consultants from private sector, DNR, WSDOT, USFS, BLM, and Conservation Districts. The guidelines are available at www.wa.gov/wdfw/habitat.htm#habrest.

HOWARD FUSS / WA DEPT. OF FISH & WILDLIFE


Fish trap on the Deschutes River.

Hatchery Reform

State fish biologists study hatchery fish reproduction in the wild at fish traps like this one in the Deschutes River near Olympia. They measure survival rates from egg to smolt stage and compare smolt to adult survival of wild and hatchery chinook. This information helps fisheries managers improve strategies in areas where hatchery and wild populations interact.

▲ A fish biologist collects data under water. Young salmon taken by a stationary underwater camera. Fluorescent identification tags identify them as hatchery fish.

Strategies

- Freshwater and estuarine habitats are healthy and accessible.
- Rivers and streams have flows to support salmon.
- Water is clean and cool enough for salmon.
- Hatchery practices meet wild salmon recovery needs.
- Harvest management actions protect wild salmon.
- Compliance with resource protection laws is enhanced.

State Agency Habitat Accomplishments | 1 of 4 Pages

Salmon Recovery Funding Board Grants

The Salmon Recovery Funding Board awarded $45 million in grants to local habitat recovery projects during the 1999-2001 biennium. These grants helped remove fish barriers, restore habitat, and purchase important salmon habitat. Grants also were given to local governments for salmon recovery planning, research and early recovery actions. A total of 84 grants worth $13.2 million were approved in the March 2000 funding cycle. An additional 147 grants totaling $31.8 million were approved in the January 2001 funding cycle.

Patit Creek Stream Restoration

Patit Creek, a tributary of the Touchet River in Columbia County, is home to threatened steelhead. The Umatilla Tribes, state and federal agencies, and a private landowner worked together to improve water quality and stream flow in the creek. They fenced off a 75- to 150-foot buffer on both sides of the stream to keep cattle out; planted native vegetation along streambanks to reduce sediment and lower stream temperatures; and built weirs out of boulders and large woody debris to create resting, feeding and nesting places for fish. The Salmon Recovery Funding Board funded the project. The tribes signed a 15-year agreement with the landowner restricting timber harvest, development and agricultural practices within the riparian corridor.

Water Cleanup Projects

The Yakima River cleanup was one of more than 100 projects by the Department of Ecology to improve water quality in the state. With the help of major irrigation districts, a highly criticized irrigation system was transformed into a model project. Sediments in the river have been reduced by more than 50 percent, meeting water quality standards in four out of five drainages.

Hydraulics Project Approval

These permits protect fish from the impacts of construction projects and other work in Washington waters. State Fish and Wildlife habitat staff made 6,718 on-site checks on 4,938 permited projects during 2001.

ROLLIE GEPPERT

With the help of major irrigation districts, a highly criticized irrigation system was transformed into a model project.

SALMON RECOVERY FUNDING BOARD

Patit Creek stream flow and natural habitat for steelhead restored.

SALMON RECOVERY FUNDING BOARD

Drayton Harbor Water Quality Restoration

Local shellfish growers and the Department of Ecology identified wetland sites with the greatest potential to restore and maintain water quality in Drayton Harbor near Bellingham. Existing information from the Ecology wetland restoration database and landscape scale assessment helped prioritize future preservation and restoration projects. This and similar information is available at www.ecy.wa.gov/eimreporting.

Flett Creek Dam Removal

The City of Lakewood, Pierce Conservation District, Puyallup Tribe, and state agencies removed the last fish passage barrier in Flett Creek and restored natural habitat. The Salmon Recovery Funding Board funded the project, which opened more than two miles of salmon habitat for chum, coho and cutthroat trout.

Agriculture, Fish and Water

Beginning in December 1999, state, federal, environmental, tribal and agriculture interests entered into negotiations to develop an agreement on how farmers could meet the needs of salmon recovery under the Endangered Species Act and the Clean Water Act. To date, these Agriculture, Fish and Water (AFW) negotiations have successfully produced guidelines for comprehensive irrigation district management plans (CIDMPs) and a pesticides registration review process that addresses fish protection. The state is implementing three pilot CIDMPs in the Dungeness, Nooksack, and Walla Walla watersheds. Direct negotiations with the agricultural community are on hold while several tasks are being concluded: an independent scientific review of the buffer science in agricultural landscapes was initiated (expected in October 2002); and application will be made to the USDA to modify the Conservation Reserve Enhancement Program to reflect any agreements.

Flett Creek natural habitat restored after a dam was removed.

WA STATE DEPT. OF TRANSPORTATION

Reforestation area at North Fork Newaukum Bank wetland enhancement area.

North Fork Newaukum Wetland Mitigation Bank

A relatively new approach to compensating for unavoidable construction project impacts to wetlands, wetland mitigation banking consolidates mitigation for multiple small impacts into a larger, higher-quality site that can be strategically placed elsewhere in the watershed where it can provide the most ecological benefit. The Washington State Department of Transportation created the North Fork Newaukum Wetland Mitigation Bank to compensate for proposed wetland impacts that will occur during the expansion of Interstate 5 through the Upper Chehalis River Basin. The project will restore or enhance nearly 90 acres of wetlands adjacent to the Middle and North Forks of the Newuakum River. It also will convert more than 74 acres of agricultural lands to mixed conifer and deciduous forests to improve water quality and augment summer low-flows.

Strategies

- **Freshwater and estuarine habitats are healthy and accessible.**
- **Rivers and streams have flows to support salmon.**
- **Water is clean and cool enough for salmon.**
- **Hatchery practices meet wild salmon recovery needs.**
- **Harvest management actions protect wild salmon.**
- **Compliance with resource protection laws is enhanced.**

State Agency Habitat Accomplishments | Continued

Non-point Pollution Inspections

Most pollution in Washington's waters comes from many different, hard-to-trace sources with no obvious point of discharge; this is called nonpoint pollution. Department of Ecology staff at four regional offices made 376 non-point pollution inspections during the 1999-2001 biennium. A primary goal was to educate and encourage local groups and farmers to take responsibility for their watersheds.

Restoring Instream Flows in Critical Basins

The Department of Ecology began a pilot project in voluntary water rights acquisitions aimed at increasing water for fish in basins with chronic low-flow problems. Over $6.6 million in state and federal funds has been set aside, with acquisitions occurring in the Yakima, Walla Walla, Methow, and Elwha-Dungeness basins. During Summer 2001, the state also entered into agreements with the Columbia-Snake River irrigators, Bonneville Power Administration, and US Bureau of Reclamation to remove 75,000 acres from agricultural production, keeping water in the river to help fish during the drought. The state also purchased 21 separate short-term water right leases from farmers that provided more water for fish.

Compliance Monitoring for Instream Flows

The Department of Ecology expanded the stream-gauging network in critical basins to document stream flows, verify water delivery, and support compliance efforts. Water users who were required to install meters and report use were provided financial assistance. Compliance staff will be able to detect illegal water use, such as pumping ground water or surface water without permit, or violating the terms of the permit.

LEFT: PAUL MAJER / CONSERVATION DISTRICT PARTNERSHIP. RIGHT: BRIAN WALSH

Computer technology in this corn field measures soil moisture. The farmer receives the data on a computer at home and adjusts crop irrigation to increase efficiency and conserve water.

WA DEPT. OF NATURAL RESOURCES

Effective Irrigation Techniques Improve Turbidity on the Yakima River

A multi-agency effort helped local farmers improve irrigation techniques through education, loans, and technical assistance. The project decreased harmful turbidity levels in the Yakima River by 95% and more.

WA STATE TOURISM

Skagit River Basin Instream Flow Rule

It had been 15 years since the Department of Ecology last adopted a stream-flow rule, but in 2001 a rule was adopted for the Skagit River. The Skagit is the largest source of clean, fresh water into Puget Sound. With the listing of Puget Sound chinook as threatened with extinction, coupled with an expanding human population, a solution was needed to ensure enough water for people and fish. The new rule describes the amount of water available for future appropriation from surface and ground waters in the basin. It protects flows for tidal inundation of the estuary and habitat for Skagit River chinook and other species. The new rule culminates a cooperative effort begun in 1996 with the departments of Ecology and Fish and Wildlife, the city of Anacortes, Skagit County, Skagit County PUD #1, Upper Skagit Indian Tribe, Swinomish Indian Tribal Community, and the Sauk-Suiattle Indian Tribe. The rule ensures coordinated management of flows in the Skagit River system.

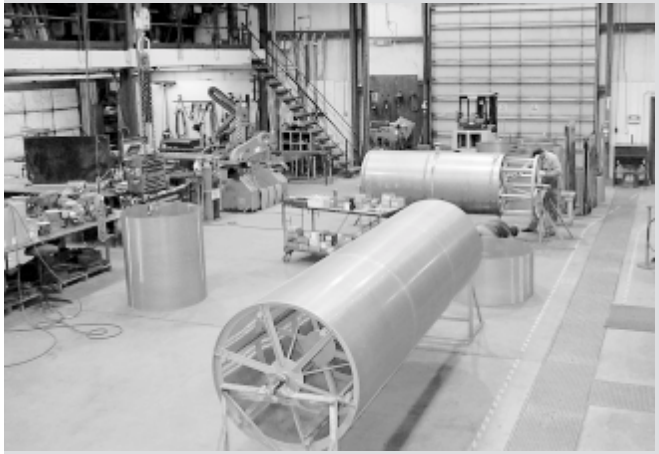
Reforming Outdated Water Laws

Governor Locke and legislators formed the bipartisan Joint Executive-Legislative Water Policy Group that worked on developing reforms to help make Washington's water laws more flexible. These reforms were enacted by the legislature during 2001 and 2002. They were the first substantial changes to water law in 30 years—and they were just the first step. Key features of the reform include: reducing water rights application backlogs, funding water conservation and irrigation efficiency projects in critical basins, providing additional funds to watershed planning groups that are working on instream flows for fish, acquiring water for instream flows through lease, purchase, or donation, and implementing stream gauging and metering in critical basins.

Fifteen major irrigation diversion screens were built and installed during the 1999-2001 biennium to protect salmon in eastern Washington streams.

"Our tribal council and members are hopeful that meaningful improvements have begun, and that restoration—once just a spoken word—can come to pass in our lifetime."

JOE PEONE
DIRECTOR OF FISH & WILDLIFE FOR THE COLVILLE CONFEDERATED TRIBES



ERIC EGBERS / WA DEPT. OF FISH & WILDLIFE

State-of-the-Art Fish Screens

The Department of Fish and Wildlife designs and fabricates fish screens in this Yakima shop. The screens prevent fish from getting trapped in irrigation ditches. It is imperative that these screens be high quality, and the Yakima shop is known throughout the Northwest for its high standards. The shop builds screens for local, state and federal agencies as well as for several tribal nations. Fifteen major irrigation diversion screens were built and installed during the 1999-2001 biennium to protect salmon in eastern Washington streams.

Strategies

- **Freshwater and estuarine habitats are healthy and accessible.**
- **Rivers and streams have flows to support salmon.**
- **Water is clean and cool enough for salmon.**
- **Hatchery practices meet wild salmon recovery needs.**
- **Harvest management actions protect wild salmon.**
- **Compliance with resource protection laws is enhanced.**

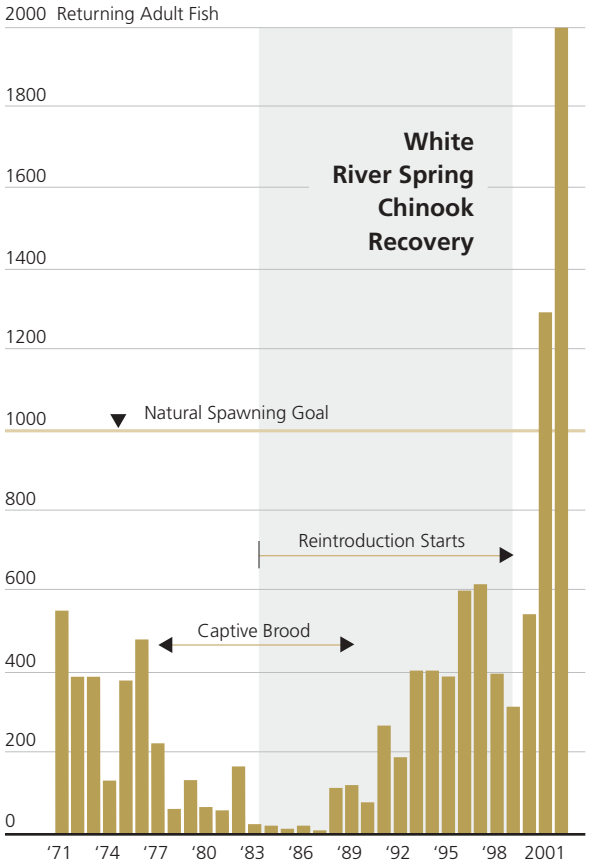
State Agency Fish Hatchery Accomplishments

Benefit / Risk Assessment Procedure (BRAP)

The Department of Fish and Wildlife developed this diagnostic tool to help analyze the compatibility of each state hatchery with the goal of recovering wild stocks. The procedure focuses on the presence of naturally spawning stocks, quality and availability of spawning habitat and other factors to help determine the degree of risk, if any, a hatchery facility poses to depressed or listed salmon stocks. Based on those assessments, specific hatchery operations may be modified or eliminated, depending on the measured risk to listed species. Use of BRAP by WDFW complements similar assessment tools being used by the Hatchery and Scientific Review Group, and will lead to the development of a hatchery reform plan for Puget Sound facilities. The tool will be further refined with a goal of eventually using it statewide.

Hatchery Restoration Programs Help Wild Fish

A cooperative project among the Puyallup and Muckelshoot Tribes, U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, National Marine Fisheries Service, and Department of Fish and Wildlife has helped bring a unique stock back from the brink of extinction. The White River chinook salmon restoration project on the Puyallup River system has used captive broodstock, supplementation, habitat restoration, harvest restrictions, dam relicensing, and water withdrawal agreements to rebuild the White River chinook salmon population from fewer than 20 returning adults in the early 1980s to 553 adult returns in 1999 and an estimated 2,000 adults in 2001. Prospects for recovery of this stock are now considered good.



DATA SOURCE: WA DEPT. OF FISH AND WILDLIFE

JULIE HOOFF / WA DEPT. OF FISH AND WILDLIFE

Mass Marking Hatchery Fish

Clipping the adipose fin on chinook, coho and steelhead hatchery fish makes it possible for fishers to catch and keep hatchery fish and release wild fish. Almost all coho from state hatcheries in Puget Sound and on the coast were clipped, as were 95% of the coho and 100% of the spring chinook released on the Columbia River (around 60 million hatchery coho and 60 million hatchery chinook).

WA DEPT. OF FISH AND WILDLIFE

State Agency Fish Harvest Accomplishments

Comprehensive Chinook Fisheries Management Plan for Puget Sound

This innovative and progressive approach to managing Puget Sound chinook identifies harvest levels each stock can sustain without affecting conservation and recovery of listed salmon. Enough fish are allowed to return to habitat created and maintained by other recovery actions. The plan includes extensive monitoring and evaluation of fishing-related impacts, abundance of returning hatchery and naturally produced fish, effectiveness of fishing regimes, and regulating compliance.

WA STATE TOURISM

Enforcement in Marine Waters

Department of Fish and Wildlife special enforcement detachments were consolidated into a new Marine Division to provide priority enforcement on selective salmon fisheries in marine waters. In 2001, more than 49,000 contacts were made for fishery compliance statewide, resulting in over 3500 arrests and written warnings. This represents a 40% increase in contacts over the previous year. Significantly, field contacts with anglers showed a 98% compliance rate with new selective fishing rules.

Economic Help for Commercial Fishing

Commercial fishers in Washington State have been hit hard by the decline in salmon populations. Many have taken advantage of a buy-back program for non-Indian commercial fishing licenses. Nearly $24.6 million in federal funds and more than $2.3 million in state funds have purchased 528 commercial licenses of 1667 total licenses, thereby reducing fishing pressure on salmon.

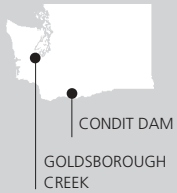
Officers from the Department of Fish and Wildlife contacted over 49,000 fishers during 2001 and found most people were complying with harvest regulations.

BRIAN WALSH / WA DEPT. OF FISH & WILDLIFE

State Agency Hydropower Accomplishments

Improving Conditions for Fish

Department of Fish and Wildlife efforts helped improve fish passage both to and through hydroelectric facilities in Washington. An agreement was reached to remove Condit Dam from the White Salmon River in 2006, opening up 25 miles of spawning habitat for salmon.



Salmon and Steelhead Return to Goldsborough Creek in Mason County

State and federal agencies, the Squaxin Tribe and Simpson Timber Company combined efforts and funds to remove Goldsborough dam, a non-functioning dam that blocked salmon passage to 14 miles of ideal spawning habitat since 1885. Workers placed boulders and logs to improve habitat in the creek, and added 35 weirs to help fish migrate up and downstream. The project was completed by the summer of 2001, in time for salmon and steelhead returning to the creek that fall. The creek is expected to eventually support an additional 2000 adult coho, 10,000 chum, and hundreds of steelhead and sea-run cutthroat each year.

Strategies

- **Create partnerships among governments and citizens. Provide leadership, coordination and technical assistance to create agreements on salmon recovery decision-making frameworks and recovery plans. Integrate scientific data with local knowledge and build in local flexibility and control.**
- **Inform, build support, involve and mobilize citizens to assist in restoration, conservation and enhancement of salmon habitat.**

State Agency Citizen Involvement and Partnership Accomplishments

Guidance on Watershed Assessment for Salmon

This guide was released in May 2001 to help watershed groups, local governments, state agencies and other salmon recovery groups make informed decisions. It describes assessments needed to select projects, make funding decisions and judge which projects will be sustainable. Technical specialists from related fields developed the guide under the direction of the Governor's Salmon Recovery Office.

Cooperative Fish Screen Compliance helps Landowners and Irrigators

The Department of Fish and Wildlife began a program in the Walla Walla River Basin designed to help landowners and irrigators achieve compliance with current state laws on fish passage, screen diversions and pump stations, and obtain permits required by the state hydraulics code for operation and maintenance of these facilities. Over 300 landowners chose to participate in the program, identifying 424 non-compliant diversions. In addition, 81 site assessments were completed, and $738,000 from the Salmon Recovery Funding Board and the Bonneville Power Administration had been approved to provide funding for screen materials and devices.

Small Forest Landowners Office

New forest practices rules to protect salmon may impact small forest landowners disproportionately. The Department of Natural Resources established this office to provide landowners with assistance and information to help them keep their land in forestry use. For example, in exchange for a 50-year easement, landowners can choose to be partially compensated for unharvested timber. The "leased" trees provide important functions along streams while landowners still own the property and retain full access.

WA DEPT. OF NATURAL RESOURCES

▲ The Department of Natural Resources established the Small Forest Landowners Office to provide technical assistance and information to landowners.

Seabeck Alki Salmon Education Project

Second to ninth grade students created these booklets to teach school kids about salmon and the environment and help other schools set up salmon teams. A Public Involvement and Education grant from the Puget Sound Water Quality Action Team funded students to create the guide and a slide show presentation. This grant was one of many to help educate citizens across the state on salmon recovery.

Roadmap for Salmon Habitat Conservation at the Watershed Level

This document helps local groups take key steps needed for salmon habitat conservation in their watershed and relate their work to regional salmon recovery planning. The Governor's Salmon Recovery Office helps state agency staff and local and regional partners apply the Roadmap to their watersheds.

Reference Guide to Salmon Recovery

This document explains what salmon recovery means, what is happening, and who is involved at different geographic scales. This information will help people who are interested in salmon recovery and salmon habitat conservation in their watershed better understand the broad context of salmon recovery. It also identifies some sources of additional information that are available.

Volunteers Aid Nutrient Enhancement Projects

Research over the past decade has demonstrated the critical role salmon play in transporting nutrients from the Pacific Ocean to aquatic and terrestrial ecosystems of the Pacific Northwest. The Department of Fish and Wildlife worked with Regional Fishery Enhancement Groups and other local organizations, primarily volunteers, to distribute the carcasses of adult salmon used for broodstock at WDFW hatcheries back into watersheds. More than 160,000 carcasses from 123 projects were distributed into streams across the state in 2000.

Volunteers helped distribute more than 160,000 adult salmon carcasses from 123 projects into streams across the state in 2000.

Stream Sampling
Volunteers donated more than 75,000 hours of their time to help recover salmon, participating in projects such as planting trees, collecting water samples, or rebuilding damaged streambanks and spawning areas.

DICK KNIGHT / SKAGIT FISHERIES ENHANCEMENT GROUP

HAL MICHAEL / WA DEPT. OF FISH AND WILDLIFE

Salmon carcasses are dropped from a helicopter into the Kalama River as part of a nutrient enhancement program.

Strategies

- **Strengthen land, water and fishery management policies, programs and activities to avoid, minimize and mitigate human impacts on salmon populations and their habitat.**
- **Seek Endangered Species Act compliance for state guidelines, regulations and plans; permitting activities; funding of projects/ activities; and state lands, facilities and infrastructure.**

State Agency Endangered Species & Clean Water Accomplishments

Forests and Fish Agreement

This voluntary pact covers eight million acres of private forestland and protects 60,000 miles of streams. Large and small forest landowners and federal, state, tribal and county governments negotiated the agreement, the first of its kind in the country. In May 2001, the Forest Practices Board adopted new permanent forest practices rules based on the agreement. The federal government has certified the rules are in compliance with the Endangered Species Act and Clean Water Act.

Harvest Plans and Fishing Seasons

Just as hatcheries need federal approval for operations, so do any harvest plans that might impact listed fish. The National Marine Fisheries Service approved Fishery Management Evaluation Plans (harvest plans, or FMEPs) for Puget Sound chinook and Hood Canal summer chum. FMEPs that could affect listed species in the Lower Columbia tributaries, Mid-Columbia tributaries, and Snake River and its tributaries are also submitted annually for federal approval. Other Endangered Species Act harvest compliance actions were taken for Columbia River bull trout and Upper Columbia steelhead.

Shoreline Master Program

To protect 20,000 miles of freshwater and saltwater shorelines, the Department of Ecology extensively involved the public to draft amendments to the Shoreline Master Program. The guidelines were adopted into rule in November 2000. Some businesses, local governments and private interests challenged the rules, but agreed to attempt to negotiate a settlement with the state. These discussions are still underway.

Hatchery Genetic Management Plans

All hatcheries need to comply with the Endangered Species Act and get federal approval for operation. As part of the approval process, the state develops Hatchery Genetic Management Plans that address structural aspects of hatcheries and fish genetics. These plans help protect genetic integrity of wild fish and aid in recovery of listed fish. They are based in part on guidelines resulting from the Congressionally—mandated review of federal, state, and tribal hatcheries now underway in Puget Sound called the Hatchery Scientific Review Group. During the 1999-2001 biennium, the Department of Fish and Wildlife developed 128 hatchery management plans and submitted them to the National Marine Fisheries Service for approval.

NANCY EBERLE

Hatchery plans help protect the genetic integrity of wild fish and aid in recovery of listed fish.

SALMON RECOVERY FUNDING BOARD

Streambank Restoration

When trees were harvested in the past, fast-growing alders usually re-vegetated clear-cut areas. These deciduous trees failed to offer the long-lasting woody debris streams need and streams essentially starved without it. Today, biologists are experimenting to improve riparian areas by planting conifers that do well in moist conditions along streambanks.

Several important cases affecting salmon were settled during the biennium. These include:

National Association of Homebuilders v. Mineta, 01-CV-02799 (D.C. Cir.)

The National Association of Homebuilders and others brought this lawsuit challenging NMFS' designation of critical habitat for listed West Coast salmon and steelhead. They alleged that NMFS "overincluded" lands in its critical habitat designation without ascertaining whether all areas designated were occupied by the species and failed to establish that the designated areas were essential to conservation of the species. A consent decree was filed with the court in April 2002. Under this agreement, NMFS agreed to withdraw critical habitat designation pending a new study and plaintiffs agreed to dismiss their lawsuit.

Washington Toxics Coalition v. EPA, 01-CV-00132 (W.D. Wash.)

Washington Toxics Coalition sued EPA alleging that the agency violated ESA Section 7(a)(2) because it failed to consult with NMFS regarding the effects of registered pesticides on threatened and endangered salmonids. The Coalition alleged that pesticides detrimentally affect salmonids by interfering with their sensory abilities to navigate back to their spawning grounds when returning from the ocean and that EPA therefore had a duty to consult with NMFS regarding this impact. The Court ruled that EPA had not complied with the ESA and set a schedule for EPA to make effects determinations and consult for 55 pesticides by December 1, 2004. The judge did, however, rule that there was not enough evidence to show that ESA consultation was required for an additional 898 pesticide active ingredients.

Washington Environmental Council v. NMFS, 00-CV-1547 (W.D. Wash.)

The Washington Environmental Council (WEC) brought this lawsuit claiming that NMFS lacked authority under Section 4(d) to promulgate a rule with a limited take prohibition. WEC argued that NMFS could allow incidental take protection from ESA liability only through actions under Sections 7 and 10. Judge Rothstein disagreed and concluded in her order that NMFS has discretion to craft a 4(d) rule that includes tailored limits. She also dismissed WEC's claims that NMFS failed to comply with NEPA and ESA Section 7. She found that as to the 4(d) rule itself, NMFS had met its obligations under NEPA and Section 7. However, when NMFS approves specific programs for coverage under the 4(d) rule, WEC could file claims at that time. Finally, Judge Rothstein dismissed all challenges to the substance of the Forests and Fish limit as well as the Municipal, Residential, Commercial, and Industrial Redevelopment limit as unripe for review.

Washington Environmental Council v. EPA, 00-CV-1548 (W.D. Wash.)

WEC and others filed suit against the Environmental Protection Agency (EPA), challenging assurances EPA made in the Forests and Fish Report. In Clean Water Act Assurances, EPA agreed that it would allow the state for ten years to defer calculating Total Maximum Daily Loads (TMDLs) for streams on lands protected by the new Forests and Fish regulations. TMDLs require the state to identify streams with impaired water quality, assess the maximum amount of pollutants those streams can assimilate, and to put mechanisms in place to limit the amount of pollutants going into each stream at or below the maximums. EPA agreed to defer TMDLs for streams covered by the new Forests and Fish forest practice regulations based on the assumption that the new regulations would reduce pollutants to streams from forest practices to levels that would not impair water quality. Judge Barbara Rothstein dismissed WEC's challenge because the case was premature. EPA had not signed the Clean Water Act Assurances, and Judge Rothstein agreed with EPA's position that the Assurances were therefore not a final agency action that a court could review.

2001-2003
Action Initiatives Highlights

The 1999 Statewide Strategy to Recover Salmon recognizes that most habitat protection and restoration initiatives are best implemented at the watershed level in partnership with local, tribal, and private entities, and with state and federal guidance and support. The Strategy also notes recovery plans that integrate habitat, hydropower, hatcheries, and harvest are best built collaboratively by local participants. During the present biennium (i.e., through June 2003), the focus for salmon recovery will be in continuing support for local salmon recovery activities, providing water for fish, and in completing the statewide comprehensive monitoring strategy.

PAIR OF PINK SALMON ON THE SPAWNING GROUNDS / PHOTOGRAPH © MANU ESTEVE

"Projects funded by the Salmon Recovery Funding Board demonstrate we can succeed in protecting and restoring salmon habitat and honor the needs of people, too."

WILLIAM RUCKELSHAUS
CHAIR, SALMON RECOVERY FUNDING BOARD,
SEATTLE POST INTELLIGENCER EDITORIAL,
JULY 25, 2000

Monitoring Results

Puget Sound Ambient Monitoring Program

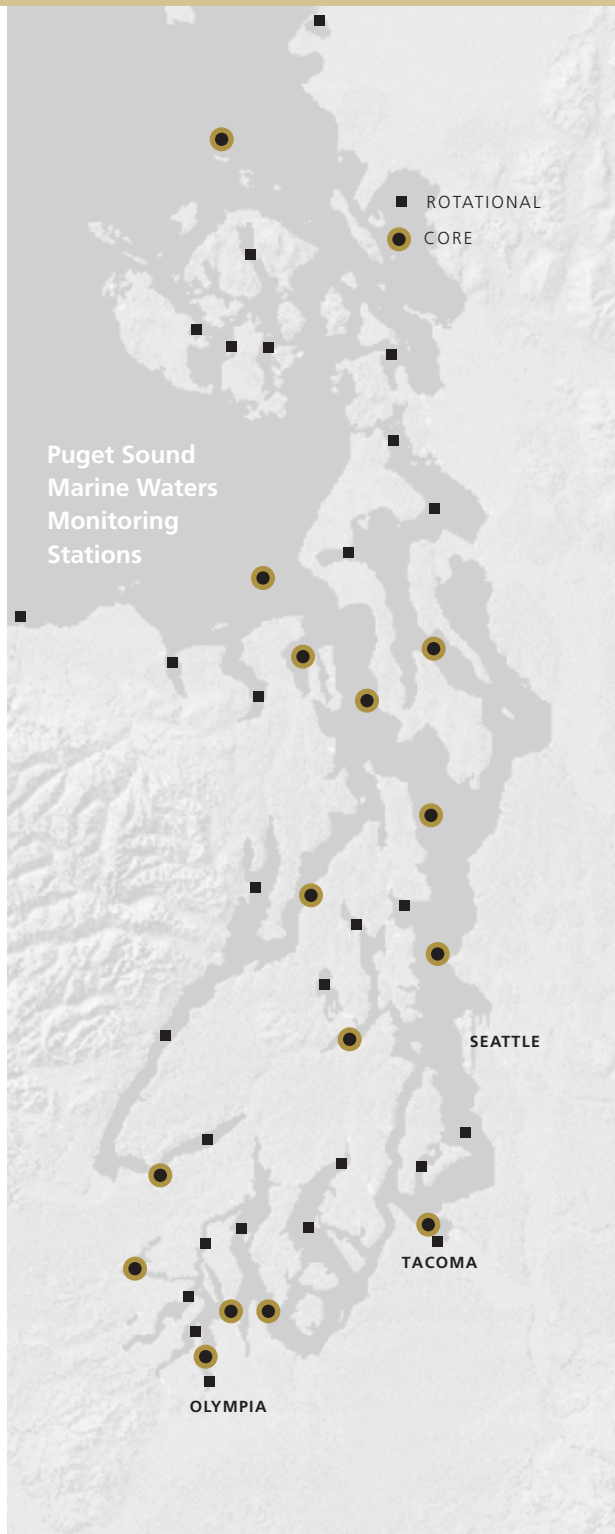
This interagency program managed by the Puget Sound Water Quality Action Team collects data from freshwater, marine water, and sediment quality monitoring stations. The data include contaminants in herring, rockfish and English sole; eelgrass distribution; and groundfish populations in the Strait of Juan de Fuca, Strait of Georgia, Rosario Strait, and more than 50 estuarine and nearshore marine assessment projects. This biennium, approximately 35 freshwater and 34 marine water stations will be monitored monthly, and 20 long-term sediment collection stations will be sampled annually. The Department of Ecology posts updated data on the agency web site, including a map of monitoring sites (right).

Salmon and Steelhead Habitat Inventory and Assessment Program

The state will expand this program. Data will be electronically displayed including salmon habitat and distribution information; Salmonid Stock Inventory (SaSI) assessments; and Salmonid Screening, Habitat Enhancement and Restoration (SSHEAR) fish passage barrier data. This information will be used with models to identify aquatic restoration and conservation needs and priorities. An electronic template for aquatic data storage also will be provided.

Comprehensive Monitoring Strategy

Responding to recommendations of the Independent Science Panel, the 2001 legislature established a committee to develop a statewide monitoring strategy and an action plan with an adaptive management framework. The plan will address watershed health with a focus on salmon recovery. Comprehensive monitoring will help those involved in salmon recovery know if they're making the right decisions and taking the most appropriate actions. Monitoring can help guide course corrections. Any necessary change in direction is called adaptive management, a fundamental principle in the Statewide Strategy. Federal, tribal and local government partners are part of this endeavor. The project will incorporate existing monitoring efforts and elements of previous salmon recovery efforts, such as the Statewide Strategy to Recover Salmon, the Salmon Recovery Scorecard and the Puget Sound Ambient Monitoring Program. The committee report is due in December 2002. It will identify steps needed to have the monitoring strategy fully implemented by June 30, 2007.



DATA SOURCE: WA DEPT. OF ECOLOGY

Providing Water for People and for Fish

Instream Flow Adoptions

Sixteen major water basins do not have enough water for fish. A strategic plan for setting instream flows through 2010 has been developed; the plan prioritizes where instream flows should be set for 2001-2003, and by 2010. The priority is based on the degree of urgency for flow setting, the readiness to proceed by local planning groups, information available, funding sources, and the dates by which instream flow recommendations are expected. A four-tier system was developed. Tier one has nine salmon watersheds that plan to have flows set in regulation or substantial progress made by June 30, 2003; twelve watersheds expect to have flows by 2005; and seven more expect to be set by 2010.

Creative Tools to Increase Stream Flows

A voluntary strategy to increase stream flows in 16 critical basins with vulnerable salmon and trout populations, this program will use many tools to acquire water rights to provide water for people and fish. Some, such as water leasing and purchasing, have been used; other more innovative measures, including water banking, auctions, and dry year leases, will be tested and employed where and when appropriate. A list and maps outlining priority watersheds, rivers, streams and stream reaches is being developed to identify where water rights acquisition efforts should be focused. Guidance for evaluating and selecting projects has been developed. The program will be implemented in the coming months through partnerships with key stakeholders, including watershed groups, conservation districts, tribes, federal agencies, and private organizations.

Update Water Code

The Department of Ecology plans to complete water resources policy studies (e.g., adjudication, water dispute resolution process) specified by the 2003 legislature. New legislation that would address important emerging issues such as municipal water rights and instream flows, exempt wells and stock watering, and relinquishment will also be evaluated.

Supporting Regional Salmon Recovery Planning

Regional Recovery Plan Model

Under leadership of the Department of Fish and Wildlife, state and federal agencies, tribes, the Governor's Salmon Recovery Office, and regional salmon recovery organizations have developed a regional recovery plan model. This model identifies the essential elements of a recovery plan, a document that will comprehensively define actions necessary to recover one or more salmon populations within a region.

Salmon Recovery Planning Grants

The Salmon Recovery Funding Board and Department of Fish and Wildlife are administering grants to help address one of the most pressing needs identified by regional groups. They will fund regional organizations to help integrate local, state, and federal recovery efforts. Five regional salmon recovery planning groups—Upper Columbia, Lower Columbia, Yakima Basin, Snake River, and Puget Sound—have been provided over $2 million, and additional money will be available to do watershed-scale activities that will assist the regional organizations as they develop their recovery plans.

Regional Water Initiatives

The Department of Ecology plans to complete the Central Puget Sound and Columbia River mainstem water initiatives. In the Yakima basin, they will pursue funding for additional storage and related fish passage and work on "use it or lose it" (relinquishment) issues through on-going mediation.

Watershed Planning

The Watershed Plan Implementation Committee's report to the legislature on implementation of watershed plans is due December 2002. It should help state agencies improve coordination between local watershed planning and salmon recovery efforts, support completion of local watershed plans, and identify important early actions for implementation. The Committee will present its report at a statewide conference in November 2002.

During the 2001-2003 biennium several legal cases could have a significant effect on how salmon recovery proceeds.

United States v. Washington, Civil No. 70-9213, Subproceeding 01-1 (W.D. Wash.) (Culverts/ "Phase II")

In January 2001, treaty Indian Tribes in Western Washington, joined by the United States, sued the State of Washington, claiming the state is violating the Tribes' treaty "right of taking fish" because some culverts underlying state highways and roads block fish passage.

The Tribes and the United States ask the court to say the treaties impose a duty to protect fish habitat, and the Tribes' ability to earn a livelihood from fishing is the standard by which this duty must be gauged. They further argue the treaties impose a standard of habitat protection that is higher than the standard imposed under the Endangered Species Act.

The parties have recently agreed to put the litigation on hold while they try to negotiate a settlement. One of the goals of the negotiations is development of a plan to identify and repair or replace all fish-blocking culverts owned by the federal government, the State of Washington, and the Tribes within much of western Washington. If negotiations are unsuccessful, discovery could resume as early as October 2002.

National Wildlife Federation v. NMFS, 01-640-GMK (D. Ore.) (Federal Columbia River Power System 2001 Biological Opinion Lawsuit)

A consortium of environmental and fishing groups is seeking review of a biological opinion ("2000 BiOp") issued by the National Marine Fisheries Service (NMFS) pursuant to the ESA. The 2000 BiOp addresses effects of operating the Federal Columbia River Power System (FCRPS) on 12 salmonid evolutionarily significant units (ESUs) listed as either threatened or endangered under the ESA. The FCRPS consists of dams, powerhouses, and associated reservoirs located on the Columbia and Snake Rivers that are operated by several federal agencies—the Bonneville Power Administration (BPA), the United States Army Corps of Engineers (Corps), and the United States Bureau of Reclamation (BOR)—called the "Action Agencies."

NMFS concluded that the Action Agencies' operation of the FCRPS is likely to jeopardize the continued existence of eight of the ESUs. NMFS therefore prescribed hydro actions and offsite mitigation actions for each adversely affected ESU that, if implemented, would not be deemed to jeopardize the species' continued existence and would allow the FCRPS to operate in compliance with the ESA.

The lawsuit argues that the 2000 BiOp violates the ESA by understating the risk of extinction these species face, by relying voluntary actions by private, state and other federal agencies, and by granting emergency exemptions that make many key measures optional.

For the past eight months, parties involved in the lawsuit—including Washington, Oregon, Idaho, Montana, the Northwest Power Planning Council, Columbia River Basin Tribes (Yakama Nation, Nez Perce Tribe, Warm Spring Tribes, and Umatilla Tribes), and various river user groups—have been engaged in court ordered mediation. A hearing is currently scheduled for February 2003.

Washington Trout and PEER v. WDFW, 02-CV-1221 (W.D. Wash.) (Tokul Creek Litigation)

Washington Trout and Public Employees for Environmental Responsibility sued the Washington Department of Fish and Wildlife (WDFW) for an alleged violation of ESA and state law due primarily to potential fish passage problems associated with an existing water diversion dam at the Tokul Creek hatchery. The parties are engaged in settlement discussions. WDFW is working with the Army Corps of Engineers to obtain assistance in eliminating any potential fish passage problems.

Muckleshoot Indian Tribe v. Ecology

The Muckleshoot Tribe is attempting to challenge an instream flow agreement entered into by the City of Seattle, Ecology, the U.S. Fish and Wildlife Service and the National Marine Fisheries Service as part of the Cedar River Habitat Conservation Plan. The agreement is intended to ensure sufficient flows to protect listed salmon in the Cedar River. King County Superior Court dismissed the case on procedural grounds and the Court of Appeals, Division I affirmed. The case is still pending before the Court of Appeals on motions for reconsideration.

Methow Valley Irrigation District v. Ecology; Okanogan Wilderness League v. Ecology

These two cases have been consolidated before the Pollution Control Hearings Board and involve appeals of an Ecology order requiring the Methow Valley Irrigation District (MVID) to limit its water withdrawals. The order is based upon Ecology's authority to prevent violations of state water quality standards and to prevent the waste of water. While there are no specific salmon/ESA issues being litigated in this case, Ecology's actions follow upon significant litigation and negotiations between the NMFS and the irrigation district over salmon/ESA issues. One of the factors underlying both the actions by NMFS and Ecology is the impact of MVID's withdrawals on listed salmon.

Washington Trout and Native Fish Society v. WDFW

Washington Trout and the Native Fish Society have filed a 60-day notice of their intent to sue WDFW under the ESA in a lawsuit challenging the Puget Sound chinook hatchery operation as a whole. These groups allege the Puget Sound chinook hatcheries are being operated in violation of the ESA by directly taking adult salmon to collect eggs for the hatchery, placing juvenile hatchery fish in streams where they compete with wild juveniles, releasing genetically inferior hatchery fish to interbreed with wild fish, and by blocking upstream passage of adult fish at some facilities. On August 27, 2002, the WDFW submitted a Hatchery Genetic Management Plan (HGMP) to NMFS - Fisheries. NMFS will review the HGMP to decide whether or not the plan meets the standards for inclusion under the 4(d) Rule, which includes a limit for hatchery operations. Approval will result in the approved hatchery program being exempt from the ESA "take" prohibition.

"We are really just starting the actions necessary to restore and sustain the salmon..."

WILLIAM RUCKELSHAUS
CHAIR, SALMON RECOVERY FUNDING BOARD
SEATTLE POST INTELLIGENCER EDITORIAL
JULY 23, 2000.

Printed on Recycled Paper






State of Washington
Governor's
Salmon Recovery
Office

2002 State of Salmon Background Data Report

Part Three

Governor's Salmon Recovery Office
PO Box 43135
Olympia, WA 98504-3135
Phone: (360) 902-2216
www.governor.wa.gov/esa

This publication was printed with
soy ink on recycled paper.
An electronic version is available on our
website.

If you would like copies of this document in an alternative format, please contact the Governor's Salmon Recovery Office at the address or phone number listed above.

Editor
Chris Drivdahl

Researchers and Writers
Governor's Salmon Recovery Office

Reviewers
WA Dept. of Fish and Wildlife (WDFW)
WA Dept. of Ecology (ECY)
WA State Dept. of Transportation (WSDOT)
WA State Dept. of Natural Resources (DNR)
WA Dept. of Community, Trade and Economic Development (CTED)
Puget Sound Action Team (PSAT)
Office of Financial Management (OFM)
WA State Conservation Commission (CC)
Interagency Committee for Outdoor Recreation (IAC)
WA State Dept. of Health (Health)
WA State Dept. of Agriculture (AGR)

Cover Photos Left to Right
Flett Creek / Salmon Recovery Funding Board
Pink male salmon / Manu Esteve
Stream restoration / Salmon Recovery Funding Board
Fisherman / Washington State Archives
Volunteers stream sampling / Disk Knight, Skagit Fisheries Enhancement Group
Stream bank restoration / Salmon Recovery Funding Board

Graphic Designer (Cover)
Luis Prado

Contents

Readers' Guide

When the *Statewide Strategy to Recover Salmon: Extinction is Not an Option* was published in 1999, state agencies agreed to develop biennial implementation plans, called *Agency Action Plans*, and the *Salmon Recovery Scorecard* to measure progress toward achieving goals set out in the *Statewide Strategy*.

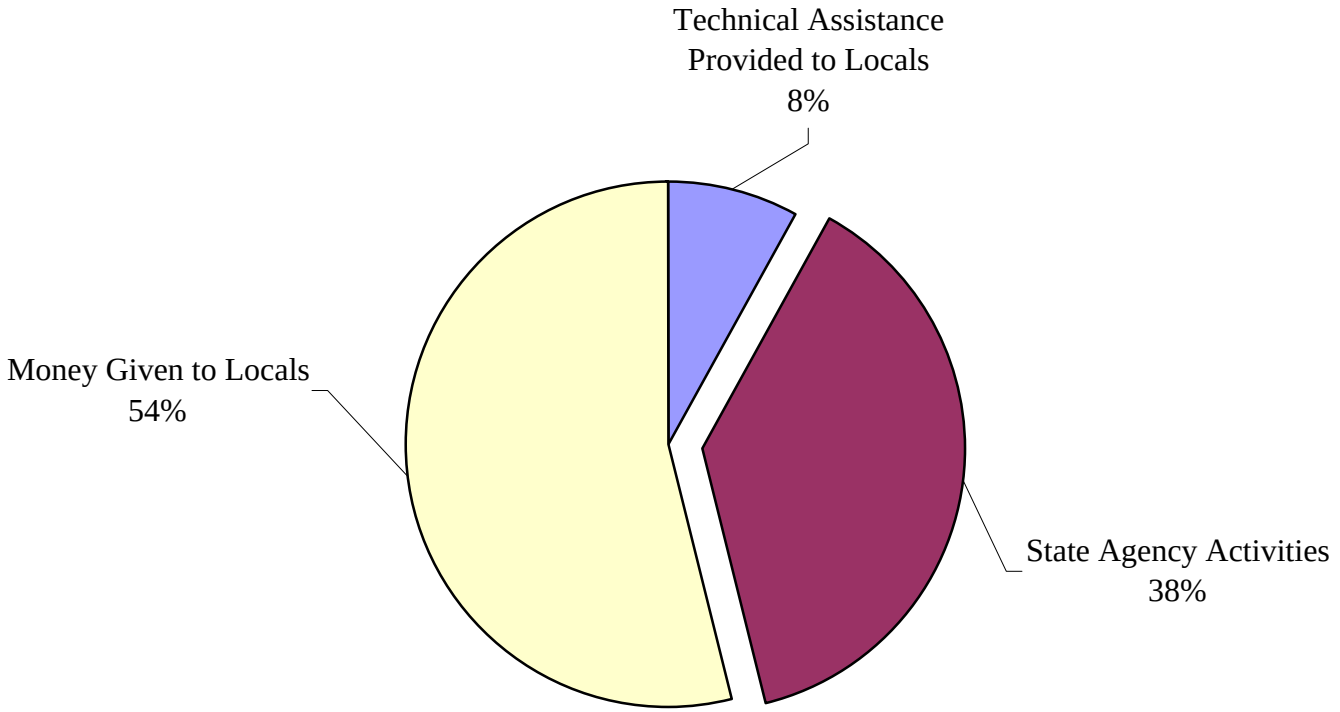
This document is Part Three of the 2002 State of Salmon Report and contains detailed information from these management tools. Here you will find reports on accomplishments from the 1999-2001 Action Plan; expected actions for the 2001-2003 Action Plan, as adjusted to reflect changes due to the 2002 supplemental budget; and supporting data for *Scorecard* reports.

1999-2001 Action Plan Accomplishments

The 1999-2001 Action Plan identified specific salmon recovery activities that state agencies were planning to undertake. It represented the first actions in the long-term implementation of the *Statewide Strategy to Recover Salmon.* It focused on new actions and modifications to existing activities that provided additional protection for salmon and was driven by goals and strategies in the *Statewide Strategy.*

The following information reports on the work accomplished under the 1999-2001 Action Plan.

1999-2001
Action Plan Budget



Activities Report
1999-01 Biennium Work Accomplished

Action ID	Action Item Title	Work Accomplished
AGRICULTURE STRATEGY TO IMPROVE FISH HABITAT		
Agr-1	Update state restrictions on pesticide applications	WDA received approval from all federal and state Pesticides Task Force members on a process to assess and respond to pesticide impacts on salmonids. WDA is now using its regulatory authority to address pesticides in water that are found at levels harmful to salmonids. The process is designed to provide ESA certainty for pesticide applicators.
Agr-2	Revise farm conservation practices	CC facilitated review of field office technical guide (FOTG) of the federal NRCS and funded Agriculture, Fish and Water (AFW) negotiations for the second year of the biennium. Guidelines for Preparation of Comprehensive Irrigation District Management Plans were completed. WDA completed 90% of NRCS farm practice reviews specific to NW Washington; these practices will assist in the implementation of farm plans that address both ESA and CWA.
Agr-3	Implement Conservation Reserve Enhancement Program (CREP)	15 conservation districts entered into 98 individual CREP contracts, Statewide; these contracts covered 1,694 acres or 103.5 stream miles.
Agr-4	Develop guidance for Comprehensive Irrigation Management Plans	Completed and received approval from federal and state agencies for the Comprehensive Irrigation District Management Plan (CIDMP).
FORESTS AND FISH		
For-1	Adopt new forest practices rules	Forest Practices Board adopted new, permanent, forest practices rules.Scorecard B1
For-2	Approve road maintenance and abandonment plans	Approved 2,576 Road Management and Abandonment Plans (RMAPs).
For-4	Support Small Forest Landowner Office (SFLO)	DNR established SFLO, Advisory Committee, and a SFLO website. Began development of SFLO database. Developed rules and a program to implement the Forest Riparian Easement (FRE) program while providing consultations and technical assistance to 326 landowners interested in the program. 43 landowners initiated the FRE process.

Activities Report
1999-01 Biennium Work Accomplished

Action ID	Action Item Title	Work Accomplished
For-7	Additional compliance field staff	DNR hired and deployed 6 new NR Program Specialists for RMAPing and 6 new Forester 2s for compliance and enforcement. WDFW conducted bull trout habitat field reviews, verified stream types, identified suitable in-channel and off-channel fish habitat enhancement sites, participated in adaptive management research & monitoring, and assisted landowners in placement of large woody debris. Ecology's efforts included: providing assistance in understanding the new Forests and Fish rules; work with landowners and Tribes on stream typing and riparian standards; participating on ID teams on forest practice permit reviews for water quality; review alternate plans in forest practices to include mitigation plans/habitat restoration; work with federal, state and private land managers for improved road maintenance; and compliance actions as appropriate.
For-8	Replace Forest Practice Application System	Designed the (new) Forest Practices Application Review System (FPARS). Converted 95% of the data from the old system (MAPS) to FPARS. Began to develop and test FPARS.
For-9	Purchase Small Landowner Easements	Did not purchase any easements (see For-4).
LINKING LAND USE DECISIONS AND SALMON RECOVERY		
Lan-1	Adopt Shoreline Management Act (SMA) guidelines and assist local governments	Shoreline Master Program amendments adopted into rule. Legal challenge to Pollution Control Hearings Board resulted in additional negotiations and court settlement discussions.
Lan-2	Update administrative guidelines for Best Available Science (BAS)	BAS amendments to WAC 365-195 adopted.
Lan-3	Provide information and technical assistance to support local governments	OCD provided over $444,000 to ten cities and four counties for plan and regulation development to protect habitat. Provided review and comment on local critical areas ordinances, and produced a series of Short Courses in Local Land Use Planning about salmon recovery and critical areas protection.
Lan-4	Revise guidelines for local Floodplain Management Plans	New draft floodplain guidelines completed by Ecology and sent to stakeholders for review.

Activities Report
1999-01 Biennium Work Accomplished

Action ID	Action Item Title	Work Accomplished
Lan-6	Implement the recommendations for a statewide, coordinated approach to reduce flood hazards (HB 3110 (1998))	WSDOT established a flood management task force to expand technical assistance, develop a clearing house of flood information, review flood program models, and develop strategy to expand and update floodplain mapping. Flood mapping, modeling and policy conference held Mar 7-8, 2001. Community needs assessment and flood mapping update white paper completed Jun 30. WSDOT and FEMA signed a policy/commitment agreement that will focus data gathering efforts on updating topographic, hydrographic, channel migration, and impervious ssurfact data sets for pilot basins.
Lan-8	Design and promote incentives for non-regulatory land use programs	Ecology staff provided on-the-ground wetlands assistance (fundraising and technical support) to agency and non-government partners on Qwuloolt and Spencer Island projects (Snohomish County) Puyallup River (Pierce), Deer Lagoon (Island), and California Creek (Whatcom). OCD provided $5,000,000 in grants to four counties to acquire riparian habitat. Cowlitz Co. received $1million for acquistion, which will be used to acquire 85.1 acres of conservation easements (40 were acquired to date). Clallam Co. will use its $1million for conservation easements, monitoring, and as leverage for large scale restoration projections such as the Dungeness Estuary project. Chelan Co. received $1.5 million for conservation easements and restoration projects. Skagit Co is using its $1.5 million to purchase 450 acres of conservation easements, monitoring, and data.
Lan-9	Implement Puget Sound wetlands protection	Agencies provided technical assistance and policy support to local governments on wetlands protection/ restoration and large-scale marine development projects in Puget Sound; for example, working with Drayton Harbor shellfish growers, Ecology used its existing wetland restoration database and a landscape scale assessment to establish priority wetland preservation and restoration sites that have greatest potential to maintain and restore water quality in Drayton Harbor. Ecology also completed wetlands mitigation compliance study and completed final report.

Activities Report
1999-01 Biennium Work Accomplished

Action ID	Action Item Title	Work Accomplished
MANAGING URBAN STORMWATER TO PROTECT STREAMS		
Sto-1	Develop a Stormwater Management Strategy Plan	Stormwater technical manual for Western Washington completed; it provides guidance to local governments on how to avoid and minimize adverse impacts to fish habitat and water quality. Stormwater and Combined Sewer Overflows Program of Puget Sound Management Plan was updated and adopted by Puget Sound Action Team. Phase I stormwater permits were issued in October 2000 for construction and industrial activities. The Pollution Control Hearings Board, acting on appeal of the permit, issued a partial stay; Ecology is in the process of negotiating provisions of the permit to address appealled issues.Began work on Phase II permit requirements for construction permits 1 acre and above.
Sto-4	Provide technical assistance to local governments' stormwater programs	A CD-ROM containing web links, a power point presentation and downloadable documents, and a color brochure on innovative stormwater management techniques called “low impact development practices” were developed by PSAT for local governments and other audiences.. A regional conference was presented in June 2001 on low impact development practices and was attended by approximately 400 elected officials, planning staff, developers, academics, and others. Agencies' staff assisted with the improvement of local stormwater programs in 48 jurisdictions throughout the Puget Sound basin, held numerous workshops and training on stormwater manual, and met with specific local governments to address fish related issues.
ENSURING ADEQUATE WATER IN STREAMS FOR FISH		
Wqn-1	Adopt instream flows in high priority basins	Instream Flow rule adopted for Skagit River, protecting flows for tidal inundation of estuary and important habitat for Skagit river chinook and other species. Continued scientific work to support additional instream flows. Watershed Planning Units briefed on flow-setting principles and methods.

Activities Report
1999-01 Biennium Work Accomplished

Action ID	Action Item Title	Work Accomplished
Wqn-3	Begin implementation of stream flow restoration plans in high priority basins	Ecology leased and/or purchased water to return flows in Walla Walla (over 1,275 acre-feet of water), Methow (over 261 acre-feet), Yakima (2,593 acre-feet) and Dungeness (where irrigators gave up 50% of their rights to withdraw water from the river and about 20cfs were secured through agricultural conservation and reuse). Agriculture conservation efforts were also implemeted in the Yakima and Methow watersheds. About 10 reclaimed water projects were constructed or under construction in salmon recovery areas (King county, cities of Yelm, Snoqualmie, Walla Walla, and Sequim and others areas), resulting in 13 million gallons per day of water saved. The saved water benefits fish through stream flow augmentation or through less demand on the existing water resources. DOH provided technical assistance to entities developing reclaimed water projects; 8 projects are constructed and in use, 12 are under construction, 17 are in planning and 26 are in review or intital development stages.
CLEAN WATER FOR FISH: INTEGRATING KEY TOOLS		
Wqa-1	Adopt and implement revised water quality standards	Ecology proposed revisions to water quality standards for antidegradation, temperature and disolved oxygen drafted; public workshops held; implementation plan drafted. Participating in regional Temperature Criteria Guidance project with other PNW states and feds; will fold results into proposal.
Wqa-2	Implement non point actions to salmon	State's Nonpoint Plan has been coordinated with salmon related protection efforts, been approved by EPA, and is being implemented by state agencies and others.OCD developed "Smart Growth" information about the contributions of sprawl to nonpoint source pollution. Ecology developed a list of salmon-related 303d waters. More than 112 water cleanup plans (including non-salmon) were completed by Ecology. Initiated joint project with EPA, OR & ID to develop TMDLs on Columbia & Snake Rivers. Sediments in the Yakima River have been reduced by more than 50%, meeting water quality standards in 4 out of 5 drains as a result of work with and by the major irrigation districts. Ecology provided technical assistance and $3.5 million in loans to assist in this effort.

Activities Report
1999-01 Biennium Work Accomplished

Action ID	Action Item Title	Work Accomplished
FISH PASSAGE BARRIERS: PROVIDING ACCESS TO HABITAT		
Pas-1	Inventory and prioritize fish passage barriers and screening	WDFW accelerated inventory of WSDOT road crossings, and passage barriers at Olympic, Methow, and Cowlitz Wildlife Areas and Region 4 and 6 access areas. 7 inventories with DOT grants. Database containing 13,100 records developed & distributed. Completed 761 fishway inspections. 44 projects in DOT grants + 7 projects in city grants.
Pas-2	Correct fish passage barriers	Corrected passage problems on 9 stand alone + 10 tagalong WSDOT passage projects and 20 WDFW passage projects.
Pas-3	Correct fish screening problems	10 Methow screening projects complete or underway, 80% of diversions complete in Beaver Ck., 6 other diversions complete; 280 screen inspections completed.
Pas-4	Provide technical and financial assistance for fish passage and screening	WDFW provided technical assistance for 25 inventory efforts, 385 passage and 30 screening projects. Completed 2nd edition of WDFW Fish Passage Barrier and Surface Water Diversion Inventory Manual, 1st edition Screening Manual, 2nd edition Fishway Manual, 3rd edition Culvert Manual.
HARVEST MANAGEMENT TO MEET THE NEEDS OF WILD FISH		
Har-1	Complete Comprehensive Fishery Management Planning	Puget Sound Comprehensive Chinook and Hood Canal summer chum harvest plans approved by NMFS through 2003. Comprehensive coho plan exploitation rate guidelines established for wild Skagit, Stillaguamish, and Snohomish chinook stocks. Interim goals agreed for Hood Canal and Strait of Juan de Fuca chinook. Upper Columbia steelhead management plan completed and submitted to NMFS for potential delisting of hatchery steelhead.
Har-3	Continue to investigate methods for selective fishing and to reduce incidental impacts	Coordinated and implemented tests of tangle nets as commercial selective gear in Willapa Bay and Budd Inlet; gears show great promise for live capture and will be implemented in 2002.

Activities Report
1999-01 Biennium Work Accomplished

Action ID	Action Item Title	Work Accomplished
Har-4	Continue and expand commerical and recreational fishery monitoring	Selective fisheries were monitored in the ocean(areas1-4), Puget Sound(area 5), and Columbia River for coho; produced area catch estimates for areas 1-5 during chinook and coho fisheries. Sampled all recreational marine fisheries to obtain catch per unit effort and species composition. Sampled all recreational and commercial marine area fisheries to retrieve coded-wire-tags. Added special monitoring effort for Lk. Washington sockeye fishery.
Har-5	Continue non-Indian commercial salmon fleet license buyback	Phase I purchase of commercial fishing licenses included $4.625 million (federal funds) and $2.340 million (state funds) which purchased 282 commercial fishing licenses (37 charter, 184 gill net, 9 per seine, 11 reef net, 41 troll). Phase 2 funds were entirely from federal Economic Adjustment Assistance Act and included $19.956 million which bought 337 commercial fishing licenses (193 gill net, 133 per seine, 11 reef net).
Har-6	ESA compliance for WDFW harvest/research activities	FMEPs: Lower Columbia submitted 3/01; Snake River submitted May 01; see comp chinook for Puget Sound; Section 6 annual take report bull trout completed 5/01 Columbia River, 6/01 Puget Sound/Coast;32 Section 10 permits for non-salmon fisheries and/or research completed 12/00, 1/01; 7 more Sect. 10 permits under dev. Research projects submitted to NMFS for approval each November.
HATCHERY MANAGEMENT TO MEET THE NEEDS OF WILD FISH		
Hat-1	Complete comprehensive WDFW hatchery program evaluation	Puget Sound: submitted 6 HGMPs covering summer chum, 33 HGMPs for chinook programs, and 48 HGMPs for all other programs. Columbia River: submitted 29 HGMPs for Mitchell Act programs, 1 HGMP for Columbia River chum, and 11 HGMPs for chinook & steelhead programs; 10 HGMPs for other programs. Snake River: submitted Tucannon steelhead, Touchet steelhead, and Lyons Ferry/Wallowa steelhead. Provided habitat, hatchery and management information for Hatchery Scientific Review Group.

Activities Report
1999-01 Biennium Work Accomplished

Action ID	Action Item Title	Work Accomplished
Hat-3	Continue artificial production-related research, including post-release behavior and migration speed	Federal funds were used to begin documenting success of reproduction of hatchery fish in the wild in the Deschutes River and a long-term study on the Kalama River to address recovery efforts of ESA listed steelhead using hatchery broodstock. There are three primary areas of focus 1) the degree to which natural productive success of a wild stock is changed by hatchery propagation of that wild stock, 2) the nature and degree of interbreeding between wild and propagated wild fish and the consequences of that interbreeding on productivity of naturally spawning population, 3) efficacy of wild broodstock hatchery programs in achieving natural production and other fishery management objectives including containment of risks to wildstocks.
Hat-4	Continue to mass mark fish	Marked approximately 30 million coho, 30 million chinook annually.
Hat-6	Implement improved hatchery practices to protect wildstocks	ESA recovery plans for spring chinook were implemented at Kendall Creek Hatchery, Hurd Creek/ Dungeness Hatcheries. Recovery plans and operations developed and implemented for listed ESA stocks of chum in the Hood Canal and Lower Columbia River areas. Also assessment of survival problems in Lake Washington watershed. Developed hatchery database (HatPro), progress reports for Nooksack and Dungeness spring chinook recovery plans, fish transfer pumps and counters for all Puget Sound and coastal hatchery complexes. Systematic review and prioritization of Puget Sound and coastal hatchery structures in need of replacement or retrofitting to meet fish passage and water quality requirements, and intake and screen replacements, etc.
Hat-7	Support Hatchery Scientific Review Group (HSRG)	Staff support for Hatchery and Scientific Review Group (HSRG) provided habitat, hatchery and management information requested for their Southern Puget Sound and Eastern Straits Regional Reviews. One FTE is part of nine member HSRG panel. Support also provided for HSRG grant process.
Hat-8	Hatchery Production Programs to Comply with ESA	See Hat-6

Activities Report
1999-01 Biennium Work Accomplished

Action ID	Action Item Title	Work Accomplished
HYDROPOWER AND FISH: PURSUING OPPORTUNITIES		
Hyd-1	Ensure that operation of hydropower projects protect and reduce/mitigate impacts on salmon and its habitat	67 hydro projects are currently in licensing or relicensing process, including water quality 401 certification. On the Columbia, state agencies are assisting in drafting and implementing the BiOp for 10 FCRPS dams, drafting/implementing the HCP for three PUD dams, and working on FERC relicense for two PUD dams. Agencies are participating in implementation of mitigation measures on 28 hydro projects, including 10 FCRPS dams and 5 FERC dams on the Columbia River.
Hyd-2	Condition hydropower projects with instream flow	Ecology reviewed FERC relicensing projects under water quality 401 certification.
EDUCATING THE PUBLIC ABOUT THE NEEDS OF SALMON		
Edu-3	Implement volunteer programs	WDFW developed and produced NatureMapping Water Module Data Bank Training Manual; incorporated salmon recovery information into trainings for Aquatic & Angler Education Instructors. PIE involved 498 volunteers (268 of these on salmon-related projects). Captured 7,414 hours of volunteer activity (3,383 on salmon-related projects). Conservation Commission executed grant agreements with 10 conservation districts to pass through funding to adjacent RFEGs to support a volunteer coordinator in each of the 12 RFEGs.
Edu-4	Implement Washington Conservation Corps (WCC) "Salmon Recovery Initiative"	WCC crews focused on watershed restoration efforts restoring, enhancing and monitoring for example nearly 40 miles of stream and riparian corridors; over 490 stream barriers were removed; 2,260,900 fish were tagged; 391 instream structures -- large woody debris and rock clusters were installed; and treated about 1,250 acreas of wetlands. Also over 19,500 hours of environmental education were given to adult and youth. Of 25 crews with up to 125 Corps members were mainly focused on salmon recovery.
Edu-7	Public Involvement and Education (PIE) Fund	Awarded and closed-out 16 contracts totaling $442,042. Directly reached 13, 957 individuals (and indirectly 168,770) with messages about ways to protect and restore Puget Sound.
Edu-9	Implement interpretive plan at state properties	Parks implemented Salmon Interpretive pilot projects in seven parks and in all four regions.

Activities Report
1999-01 Biennium Work Accomplished

Action ID	Action Item Title	Work Accomplished
ENFORCEMENT OF EXISTING LAWS RELATED TO SALMON		
Enf-2	Deploy marine enforcement detachments	Three detatchments created in 5/00 to provide priority enforcement focus on selective salmon fisheries in marine waters. Completed all scheduled Pacific Fisheries Management Council enforcement patrols for selective fisheries. Selective fishery compliance reporting for CY2000 reveals regulation compliance of 90% and above in the four salmon mgmt. areas.
Enf-3	Increase compliance and enforcement of Hydraulic Project Approval (HPA)	Focus on high-risk permits. Statewide HPA compliance exceeds 95% of those permits checked; 6,718 on-site checks by habitat staff (4,938 permits issued) in 2001.
Enf-4	Increase compliance and enforcement of water quality pollution	New staff assigned to all four of Ecology's regional offices to focus on non-point pollution. 376 inspections resulted in technical assistance, informal enforcement actions to prevent water pollution.
Enf-5	Detect and enforce against illegal water diversions	Ecology reestablished compliance program, hired/trained staff, acted to detect illegal water users, took about 71 actions (including penalties amounting to $336,000) against illegal water diverters, and regulated water users - resulting in water remaining in streams especially during low flow conditions.
Enf-6	Develop and implement a compliance/accountability database	Completed the development of Phase I database that monitors and tracks BA review status of WSDOT projects at UFWS and NMFS. Also, completed a needs assessment for development of Phase II which will provide permit tracking and complinance monitoring with all resource agencies.

Activities Report
1999-01 Biennium Work Accomplished

Action ID	Action Item Title	Work Accomplished
PERMIT STREAMLINING		
Per-2	Develop and implement Integrated Stream Corridor Guidelines	WDFW, Ecology, & WSDOT completed 7 white papers and scoping for future guidelines. (avaliable at http://www.wa.gov/wdfw/hab/ahg/) Edit, graphic design, and layout underway for 4 additional documents. Stream Habitat Restoration and Channel Design underway.
Per-4	Conduct review of Hydraulic Project Approval (HPA) and initiate ESA compliance document	MOU between WDFW, NMFS, USFWS signed; generic outline developed, committees established, initial program review initiated, 2 discussion draft rules distributed for comment; scoping completed after 6 public meetings 10/99, comment summary document completed; DEIS initiated; submitting existing program to NMFS & USFWS for review before proceeding further; project in hiatus until response received.
Per-6	Complete ESA compliance documents for transportation projects	1. Statewide biological assessment - Developed and in negotiation with NMFS and USFWS 2. Integrated Streambank Protection Guidelines not yet published, so not in use yet 3. ECY Tech. Manual not complete so HRM update not done yet - stormwater inventory updated 4. 146 BAs submitted to NMFS and 19 BAs submitted to USFWS 5. 4(d) rule for maintenance - BO written, public review started
ADAPTIVE MANAGEMENT AND MONITORING - SCIENCE ACTIVITIES		
Sci-1	Develop recovery goals and rebuilding targets	Draft recovery goal analysis completed for 16 PS chinook populations; habitat characterized for 10 watersheds in the Lower Columbia region.
Sci-2	Establish and implement a technical and scientific review process	IAC submitted a briefing paper to Governor examining scientific and technical groups established for salmon recovery, and making recommendations for coordinated scientific support for salmon recovery. IAC established a Technical Panel of experts to meet with Lead Entities and advise them on their assessments and habitat recovery strategies, assist in developing grant evaluation criteria, and review and evaluate grant applications. GSRO, with assistance from agencies, published Guidance on Watershed Assessment for Salmon.
Sci-3	Provide scientific review and oversight	ISP Report 2000-1: Review of Statewide Strategy to Recover Salmon.

Activities Report
1999-01 Biennium Work Accomplished

Action ID	Action Item Title	Work Accomplished
ADAPTIVE MANAGEMENT AND MONITORING - MONITORING ACTIVITIES		
Mon-1	Facilitate the development of a statewide monitoring framework	Salmon Recovery Scorecard created and partially implemented by agencies. Development and passage of legislation for statewide monitoring strategy and action plan (SSB 5637). Monitoring Salmon Habitat in the Pacific Northwest directory of protocols distributed by WDFW. ISP Report 2000-2 issued: Recommendations for Monitoring Salmonid Recovery In Washington State.
Mon-3	Implement Puget Sound Ambient Monitoring Program (PSAMP)	Agencies implemented coordinated, interagency Puget Sound Ambient Monitoring Program. Data from long-term fresh water, marine water, and sediment quality monitoring stations are posted on Ecology's web site. Updated results were published in annual reports presented at the Puget Sound Research Conference, and included in the Puget Sound Update report. Data collection continued by implementing agencies, including new investigations of contaminants in herring and investigations of contaminant effects in rockfish and English sole; monitoring eelgrass distribution; and surveys of groundfish abundance in Strait of Juan de Fuca and Strait of Georgia/Rosario Strait. Fish contaminant and effects work at WDFW more fully (and formally) coordinated with similar work at NMFS's Northwest Fisheries Science Center. Conducted and reported results of a survey of more than 50 estuarine and nearshore marine assessment projects to promote improved integration among projects. Completed program review of PSAMP and began responding to recommendations (e.g., improved peer review, integrative studies).
Mon-4	Update Salmonid Stock Inventory (SaSI) Project and integrate with Salmon and Steelhead Habitat Information and Assessment Project (SSHIAP)	Existing SaSI documents available on WDFW Website; database enhanced to facilitate queries and updating; data for Puget Sound and Lower Columbia Technical Recovery Team identification of populations and abundance data; Lower Columbia chum reports final draft; Stillaguamish Chinook report final draft.

Activities Report
1999-01 Biennium Work Accomplished

Action ID	Action Item Title	Work Accomplished
Mon-5	Expand existing Salmon and Steelhead Habitat Inventory and Assessment Program (SSHIAP)	42 WRIAs with cleaned/routed hydrolayer; 4 WRIAs (8, 11, 12, & 15) with all core habitat elements completed; full set of maps delivered to watershed groups associated with these WRIAs; 4 other WRIAs (10, 16, 17, & 19) with core habitat elements nearly completed; 9 WRIAs with 4 core habitat elements completed. Additional information on data protocols and SSHIAP products available at http://www.wa.gov/wdfw/hab/sshiap/index.htm
Mon-6	Expand annual spawner abundance monitoring	Spawner surveys are conducted periodically in all but 5 of the 62 WRIAs; annual surveys were conducted in 41 of 62 WRIAs. Pacific Salmon Treaty-funded salmon spawning survey research in Skagit, Stillaguamish, Snohomish, Green, Lewis, Hanford Reach.
Mon-7	Continue and expand freshwater productivity research	WDFW conducting smolt and adult monitoring sites in Skagit (2 sites), Island County, Skykomish, Lk. Washington system (4 sites), Green (2 sites), White, Deschutes, Hood Canal (15 sites) Snow Ck., Chehalis (3 sites), Lower Columbia (3 sites), Cowlitz, 2 sites, Lewis/Kalama (2 sites), Wind (4 sites), Tucannon, Wenatchee (3 sites). Ecology and WDFW, are monitoring 5 index watersheds for connections between water quality and fish productivity - Big Beef Creek (Hood Canal), Bingham Creek (Chehalis Basin), Deschutes River (Budd Inlet), Cedar Creek (Lewis River), and Chiwawa River (Wenatchee Basin). Results of first year of monitoring will be available in FY02.
ADAPTIVE MANAGEMENT AND MONITORING - DATA ACTIVITIES		
Dat-3	Develop and implement salmon recovery information management plan	SWIM completed initial agency survey and distributed report; completed strategic plan, and developed tactical plan to respond to survey needs. SWIM TAC developed project list to address needs. Actively participating with the State/EPA Environmental Data Standards Council re IT standards.

Activities Report
1999-01 Biennium Work Accomplished

Action ID	Action Item Title	Work Accomplished
Dat-6	Track funds allocated for salmon habitat projects and activities	IAC PRISM database contains information on 881 SRFB salmon recovery projects, ranging from those in application phase to funded and completed projects. PRISM provides information weekly to DOT's Uniform Environmental Project Reporting System (UEPRS). The classification system used to describe projects in PRISM was developed with a number of state agencies, has been adopted by GSRO, and is used in WDFW's monitoring protocols directory. PRISM is accessible on the Internet. Planning for interactive map Internet website to show funded salmon projects was begun.
Dat-7	Inventory Nearshore Habitat	ShoreZone data for the state-wide inventory of nearshore habitats was published. Whatcom and Skagit inventory data continues to be made available. These data are being widely used by lead entities, Marine Resource Committees, and local governments for salmon restoration project selection. Nearshore related studies and data sets were also inventoried.
ADAPTIVE MANAGEMENT AND MONITORING - RESEARCH ACTIVITIES		
Res-2	Study predation on salmon	Experimental manipulation of tern breeding colony was successful. Study was cut short because of concerns over released salmonids in nearby waters. A manuscript has been submitted for peer review publication in Biological Conservation. Marine mammal study has been conducted in Hood Canal. A progress report is available documenting results from 1998 and 1999; results from 2000 will be available later in 2001.

Activities Report
1999-01 Biennium Work Accomplished

Action ID	Action Item Title	Work Accomplished
ADAPTIVE MANAGEMENT AND MONITORING - SALMON REPORT		
Rep-1	Prepare "State of the Salmon Report" and revision to Statewide Strategy to Recover Salmon (SSRS)	First State of Salmon Report published. Coordinated first Action Plan and status report. Revisions and linkage of Strategy, Action Plan, and Scorecard underway.
REGIONAL RESPONSE		
Reg-2	Create toolbox of recovery materials	GSRO published Guidance on Watershed Assessment for Salmon, and drafted Roadmap for Watershed Habitat Conservation Planning.
Reg-3	Provide technical assistance and funding to regional entities	WDFW Implemented Watershed Stewardship Teams (WST); 15 WST biologists provided technical assistance to 25 Lead Entities under HB2496, 16 planning units under HB2514, and 15 Regional Fisheries Enhancement Groups (RFEGs). Assistance included development of strategies to guide protection/restoration activities, project review, presentations and consultations, help in obtaining funding grants, and training. WDFW provided engineering assistance to local salmon recovery efforts. JFE crew provided fish and wildlife habitat restoration technical assistance to DNR in developing and implementing the program; 14 grantees accomplished over 130 priority projects recommended by Lead Entities. GSRO provided technical and policy assistance to Regional Recovery Boards, organized 2 public forums on salmon genetics, authored document that sets biological priorities for salmon habitat protections and restoration for Upper Columbia Fish Recovery Board, assisted in review of projects and restoration strategies, etc.
Reg-4	Expand the development of local watershed salmon responses	40 WRIAs are undertaking watershed planning, with a focus on water quantity component. Out of those, 33 are actively engaged in completing their assessment activities. State agencies meet on a quarterly basis to discuss coordination among salmon recovery and watershed planning.
Reg-5	Complete the limiting factors analysis	26 WRIA Limiting Factors reports were completed.
Reg-6	Provide grants for salmon recovery	The SRFB awarded 84 grants, totaling $13.2 million in its first funding cycle in March of 2000 and 147 grants totalling $31.8 million in its second funding cycle in January of 2001. WDFW provided 21 contracts to Lead Entities in 1999-2000, 25 contracts in 2000-01.

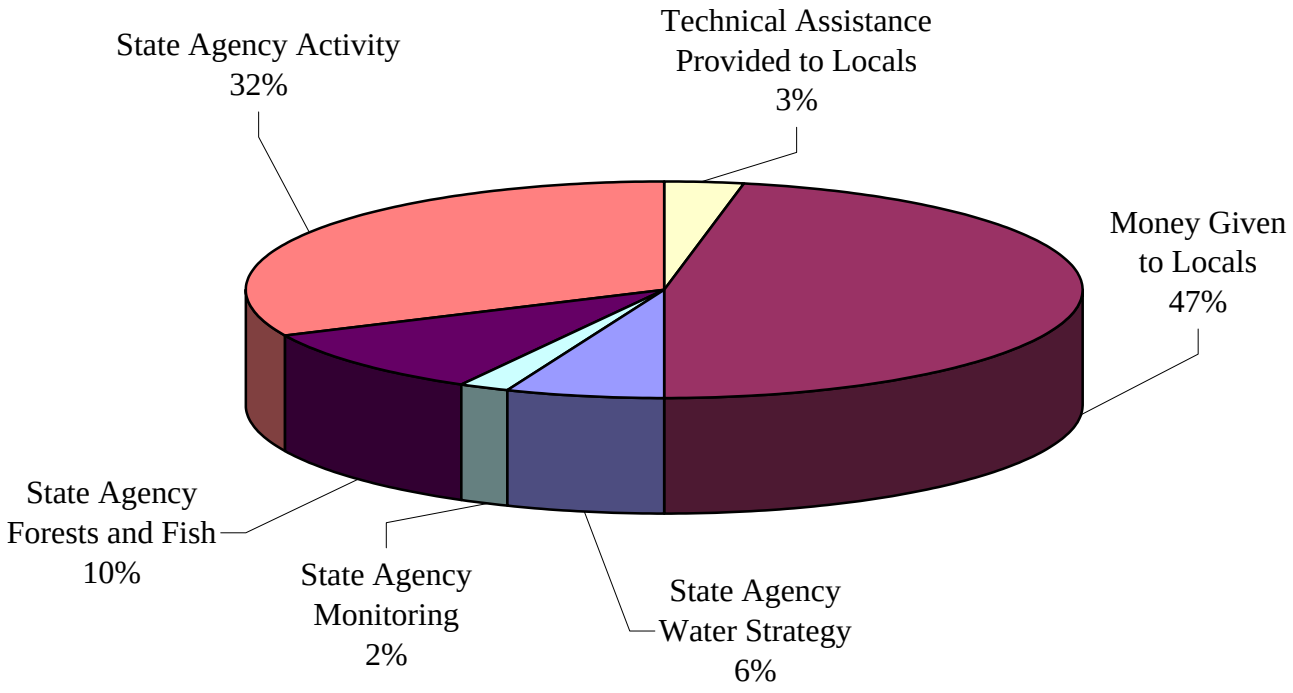
Activities Report
1999-01 Biennium Work Accomplished

Action ID	Action Item Title	Work Accomplished
Reg-8	Provide Washington Wildlife and Recreation Program (WWRP) grants for Salmon Habitat Projects	The Washington Wildlife and Recreation Program Habitat Conservation Account (WWRP-HCA) benefits habitat for all species, with priority given to listed species. Although salmon are not specifically favored over other species, a number of 99-01 WWRP grants benefit salmon habitat.
Reg-9	Provide Technical Assistance to local governments and landowners	PSAT reached agreement with Puget Sound conservation districts use of funds to implement and track programs. Agencies provided technical assistance for water quality, stormwater management and habitat protection to over 200 local governments and other entities in the Puget Sound counties and assisted landowners and local governments in developing responses to ESA listings. PSAT supported workshops for planners and homeowners on practices to protect shoreline habitats. Agency staff reviewed and commented on draft Critical Area Ordinances, Shoreline Master Program revisions, flood plain enhancement projects, plans for drainage districts, etc.

2001-2003 Action Plan Expectations

This section represents the second biennial implementation plan for the *Statewide Strategy to Recover Salmon.* It details actions state agencies are undertaking to recover salmon during the 2001-2003 biennium. Like its predecessor 1999-2001 Action Plan, it does not include all state agency salmon-related activities. Base actions of agencies – such as the Department of Fish and Wildlife's fish harvest actions – are not included in this report.

2001 - 2003
Action Plan Budget



Activities Report
2001-03 Expectations

Action ID	Action Item Title	Actions Carried Forward / Proposed in the 2001-2003 Biennium
AGRICULTURE STRATEGY TO IMPROVE FISH HABITAT		
II Agr-1	Update state restrictions on pesticide applications	Complete technical addendum to pesticides/ESA white paper. Hire technical staff and develop a program w/in WSDA Pesticides Division to ensure pesticides are not a limiting factor in the recovery of salmon. Scorecard B1
II Agr-2	Revise farm conservation practices	AFW negotiations and review of the NRCS FOTG practices will continue. WDA will complete (1) remaining practice reviews for NW Washington; (2) riparian buffer practices statewide; (3) practice reviews and revisions appropriate for remaining three regions of state to assist implementation of farm plans. FOTG Integrated Technical Team (ITT) has looked at about 30 best management practices and plans to develop a document with practices for Washington that can be used in the entire Northwest. Scorecard C1 /C2
II Agr-3	Implement Conservation Reserve Enhancement Program (CREP)	Conservation Districts will enter into CREP contracts with available funding. Scorecard C1/C2
II Agr-4	Develop guidance for Comprehensive Irrigation Management Plans	Secure funding and implement a minimum of two pilots (one on eastside/one on westside) to evaluate the planning program and make appropriate modification as needed. Plans will be performance based, identifying limiting factors for salmonids and implementing specific actions to address these limiting factors. Coordinate CIDMP planning processes w/regional salmon recovery and watershed planning.
FORESTS AND FISH		
II For-1	Approve road maintenance and abandonment plans	Approve 5,600 RMAPs. Begin development of RMAP tracking system. Scorecard C1/C2
II For-2	Implement Small Forest Landowner Office (SFLO)	DNR will add a riparian ecologist to SFLO team, complete SFLO database, provide consultations and assistance for landowners. Purchase Forest Riparian Easements. Develop and implement alternate planning process, help landowners prepare alternate plans.

Activities Report
2001-03 Expectations

Action ID	Action Item Title	Actions Carried Forward / Proposed in the 2001-2003 Biennium
II For-3	Implement Forests and Fish Agreement	DNR: Rules: conduct training and write FPB manual guidance. Cultural resources: develop database and pilot study on watershed analysis module. Develop and implement hazard zonation pilot project. WDFW: Continue integration of hydraulics code with forest practices WACs. Complete inventory/assessment of 360 miles of forest roads on 7 Wildlife Areas; compile GIS to monitor progress; develop road management and abandonment plans for assessed areas; correct fish passage barriers & sedimentation problems, & abandon unnecessary roads. WDFW and DNR: 13 Cooperative Monitoring, Evaluation, and Research (CMER) projects approved and will be initiated; administer and participate in other ongoing projects.
LINKING LAND USE DECISIONS AND SALMON RECOVERY		
II Lan-1	Adopt Shoreline Management Act (SMA) guidelines and assist local governments	Ecology determining course of action given recent appeal of rules and SHB decision. Provide technical assistance to local governments that submit SMP amendments under new or additionally revised rules. Scorecard H3
II Lan-2	Provide information and technical assistance to support local governments	OCD will coordinate state agency technical support for local governments as they review and revise, as necessary, their GMA plans and development regulations. Will coordinate state agency review and comment on local plan and regulation revisions.
II Lan-3	Revise guidelines for local Floodplain Management Plans	Complete update of floodplain guidelines.
II Lan-4	Implement the recommendations for a statewide, coordinated approach to reduce flood hazards (HB 3110 (1998))	WSDOT will lead development of MOA among local, state, and federal agencies to systematically update flood maps statewide. Statewide topographic/ hydrographic data assessments. Pilot floodplain mapping partnership projects in Chehalis basin. Complete flood model comparisons.
II Lan-5	Design and promote incentives for non-regulatory land use programs	Ecology will develop and update technical assistance materials and provide specialized technical assistance to local governments on non-regulatory protection of wetlands.

Activities Report
2001-03 Expectations

Action ID	Action Item Title	Actions Carried Forward / Proposed in the 2001-2003 Biennium
II Lan-6	Implement marine and freshwater habitat protection in Puget Sound	Update wetland model ordinance, and adopt banking mitigation rules. Provide technical assistance to local governments to carry out portions of the Marine and Freshwater Habitat Protection Program of the Puget Sound Management Plan that supports salmon recovery, especially GMA and SMA updates and participation in watershed planning.
MANAGING URBAN STORMWATER TO PROTECT STREAMS		
II Sto-1	Control impacts of stormwater on salmon habitat	Stormwater manual for Eastern Washington will be developed. Phase I and II stormwater permits (over 90 permits) will be issued by 2003. Permits will be coordinated with updated comprehensive land use plans for affected communities.
II Sto-2	Provide stormwater technical assistance to local governments	Agencies expect increased requests for technical assistance as new stormwater manual comes into use. Ecology is contracting with Associations of Cities and Counties to provide technical assistance in western Washington. Technical assistance in eastern Washington will also be increased as new manual is developed.
ENSURING ADEQUATE WATER IN STREAMS FOR FISH		
II Wqn-1	Adopt instream flows in high priority basins	Finalize Guidance Document on instream flows. Produce programmatice EIS on watershed plans. Provide financial and technical assistance on instream flows to 2514 and non-2514 local planning units. Accelerate adoption of instream flow rules in 4 of "16 critical basins" under the
II Wqn-2	Implement water conservation and waste water reuse programs in high priority basins	Aquire water with focus on fish critical basins. Implement new on-farm conservation program.With DOH lead, help provide technical/financial assistance to small water systems. Scorecard D1
II Wqn-3	Governor's water strategy	Action initiatives (in addition to agency-specific water quantity actions) include a collaborative approach to develop a pay-as-you-go funding mechanism for infrastructure and water reform legislation.

Activities Report
2001-03 Expectations

Action ID	Action Item Title	Actions Carried Forward / Proposed in the 2001-2003 Biennium
CLEAN WATER FOR FISH: INTEGRATING KEY TOOLS		
II Wqa-1	Adopt and implement revised water quality standards	Complete Regional Temperature Project; publish final proposals; hold extensive technical and public review process; adopt final revised water quality standards. Participate in subsequent ESA Sec 7 consultation. Scorecard B1
II Wqa-2	Improve water quality for salmon, including non-point, TMDLs, and sediment.	OCD will develop and publish materials about role of GMA in reducing sprawl, and develop model ordinances to assist local governments in protecting critical areas. Ecology will continue to work with locals to develop water quality clean up plans to improve fish habitat. Complete 30 (includes non-salmon) TMDLs in FY02. Complete Columbia & Snake Rivers TMDLs for TDG and temperature in FY03. New 303d list due in 2002. Continue to provide technical and financial assistance to major irrigation districts to reduce turbidity (sediment loads) in Granger drain by 20% for each of next two irrigation seasons with target of achieving water quality standards.Scorecard E2
FISH PASSAGE BARRIERS: PROVIDING ACCESS TO HABITAT		
II Pas-1	Inventory and assess passage barriers and screening; correct problems	WDFW will locate, assess, & correct fish passage barriers on WSDOT reoadways within 1 geographic district; update database; and design, fabricate, & install 16 new screens where problems have been identified. On WDFW Wildlife Areas (WLAs), complete inventory of 4 WLAs and correct problems as funds are available. Efforts will be coordinated with CC's Limiting Factors Analysis. Scorecard C2
II Pas-2	Provide technical and financial assistance for fish passage and screening	WDFW will assist recipients of SRFB grants to inventory and correct fish passage and screening problems. They also will help recipients incorporate fish passage data into a centralized data base.

Activities Report
2001-03 Expectations

Action ID	Action Item Title	Actions Carried Forward / Proposed in the 2001-2003 Biennium
HARVEST MANAGEMENT TO MEET THE NEEDS OF WILD FISH		
II Har-1	Comprehensive Salmon Fishery Management Planning	Comprehensive Chinook Management Plans for Puget Sound will continue to be refined with TRT review; objectives for management of Puget Sound and coastal coho will be finalized for Comprehensive Coho Management Plan. Columbia River steelhead management plan will be updated. Comprehensive management plans are implemented annually through the Pacific Fisheries Management Council and "North of Falcon" season setting processes.
II Har-2	Investigate methods for selective fishing to reduce incidental impacts	WDFW will evaluate catch efficiency of tangle nets and gill nets and estimate survival of salmonids captured in each gear; work with commercial fishers to improve gears; and develop web site to share information.
II Har-3	Monitor commercial and recreational fisheries	WDFW will collect data on which catch estimates are based, collect basic biological information used to determine stock demographics and distribution in fisheries, and ensure new fishing techniques are achieving desired outcomes. Key tasks include collecting on-the-water data and assessing bycatch on number of released coho, chinook, chum and seabird species by ocean and Puget Sound recreational fishers, with an emphasis in the Strait of Juan de Fuca and ocean coho selective fisheries; collecting on-the-water data from commerical fisheries in PSC fisheries Areas 7/7A and assessing bycatch impacts on coho, chinook, bird and marine mammals; assessing chinook bycatch in South Puget Sound 10/11 chum fishery; and assessing coho and chinook bycatch in Hood Canal chum. Will also continue comprehensive dockside sampling of non-Indian fishery landings to collect basic catch, effort, release and biological information on fish and seabirds from 2001 salmon fisheries, and with tribes ensure successful integrated sampling of both treaty and non-treaty fisheries occurs. Scorecard G1

Activities Report
2001-03 Expectations

Action ID	Action Item Title	Actions Carried Forward / Proposed in the 2001-2003 Biennium
II Har-4	Continue non-Indian commercial salmon fleet license buyback	Targets for license purchace when the buyback program began in 1999 were: 41 purse seine, 11 reef net, 184 gill net. In the 1999-01 biennium, 12 purse seine licenses, 6 reef net, and 108 gill net licenses were purchased using a combination of state and federal dollars. (In the 2001-03 biennium, only federal funds will be available to purchase 29 purse seine, 5 reef net, and 76 gill net licenses, at which time our license reduction goals will have been met.
II Har-5	ESA compliance for WDFW harvest/research activities	Fishery Management and Evaluation Plans (FMEPs), Section 7 consultations, Section 10 ITPs, and Joint Resource Management Plans will be developed for all WDFW-managed sport and commercial fisheries; Section 10 ITPs, Section 7 consultations, Section 4(d) and USFWS annual research descriptions will also be submitted. Scorecard B1.
HATCHERY MANAGEMENT TO MEET THE NEEDS OF WILD FISH		
II Hat-1	WDFW artificial production program evaluation	Building on 99-01 work, Hatchery Genetic Management Plans (HGMPs) for 8 remaining Puget Sound programs will be completed. HGMPs for 11 Lower Columbia Steelhead programs will be submitted. Benefit-Risk Assessment Procedures (BRAPs) conducted on PS chinook programs and on Lower Columbia chinook, steelhead, and chum programs. Provide staff support for Hatchery Scientific Review Group (HSRG).
II Hat-2	Conduct artificial production-related research	Research will continue in 9 locations to evaluate reproductive success, fitness maintenance, residualism, survival, behavior, and/or genetic and ecological impacts of hatchery fish. Reports from all locations will be available.
II Hat-3	Mark chinook and coho hatchery production	Mass marking of hatchery salmon will continue to be a priority program, with approximately 30 million chinook and 30 million coho marked annually. WDFW will also establish an electronic mass marking tracking and reporting system.

Activities Report
2001-03 Expectations

Action ID	Action Item Title	Actions Carried Forward / Proposed in the 2001-2003 Biennium
II Hat-4	Implement recommendations from hatchery evaluations by improving facilities and modifying production practices	WDFW will develop and implement Hatchery Reform Plan that integrates recommendations from HSRG and BRAP (see Hat-1). Capital projects include improvements to water intakes, weirs, pollution abatement ponds, etc. and should address Puget Sound Chinook. The Dungeness Hatchery groundwater supply will be replaced, and Kendall Creek adult ponds will be reconfigured.
II Hat-5	Implement ESA compliance and wild fish recovery for hatchery production programs	WDFW will develop monitoring and evaluation plans, as well as standard spawning, incubation, and rearing protocols for all recovery projects; collect broodstock for each recovery project and determine adult survival rates, spawning distribution patterns, arrival times, etc. They will collect, incubate, and mark eggs, and do survival assessments on all offspring produced.Captive Brood Programs to preserve genetics of threatened/endangered species will be developed and maintained in various watersheds throughout the state.
HYDROPOWER AND FISH: PURSUING OPPORTUNITIES		
II Hyd-1	Review major western Washington and Columbia River tributary hydropower, water supply, and flood control dam projects	Ensure operation of projects either proposed or petitioned for approval and relicensing include measures to protect, reduce,and/or mitigate impacts on salmon and salmon habitat. Examples of major projects up for review include: Upper and Lower Baker River, Cowlitz Falls (Cowlitz), Condit (White Salmon), Buckley Diversion (White), Howard Hanson (Green), Cushman/Kokanee (N. Fork Skokomish), Yale, Swift, Merwin (Lewis), Chelan Falls (Mid-Columiba), Trinity (Chewuch), Spokane River (5 projects), Boundary, Box Canyon, and Sullivan Lake. Scorecard C1/2 D1
II Hyd-2	Review Columbia and Snake River Mainstem hydropower projects	Ensure operation of hydropower, water supply, and flood control dam projects either proposed or petitioned for approval and relicensing include measures to protect, reduce,and/or mitigate impacts on salmon and salmon habitat. The relicense process has just begun for Priest Rapids, Wanapum, Rocky Reach on the Columbia River. Snake River projects are undergoing Corps of Engineers assessment.

Activities Report
2001-03 Expectations

Action ID	Action Item Title	Actions Carried Forward / Proposed in the 2001-2003 Biennium
EDUCATING THE PUBLIC ABOUT THE NEEDS OF SALMON		
II Edu-1	Provide assistance to volunteers	PSAT will implement Public Involvement and Education (PIE) Fund. WDFW will provide assistance to 14 Regional Fisheries Enhancement Groups (RFEGs), including technical assistance for over 300 restoration projects. Scorecard I3
II Edu-2	Implement Washington Conservation Corps (WCC) "Salmon Recovery Initiative"	WCC crews will focus 90% of resources on restoring, enhancing and monitoring salmon habitat, wetlands mitigation sites; assisting organizations with watershed restoration, riparian enhancement and instream structures, and other water quality and salmon enhancement activities; and providing effective entry-level job training for young adults. Expect to restore and enhance 85 miles of riparian habitat plant and maintain about half a million trees and native plants, treat over 1000 acreas of wetlands, and construct 300 in-stream sturctures to improve habitat.
II Edu-3	Implement interpretive plan at state properties	Parks will provide salmon interpretation at all parks that intersect with salmon, and will also gather salmon interpretive materials as a repository for educational purposes at other public managed properties.
II Edu-4	Develop and implement water strategy outreach and communications	A Governor's water strategy and education/communications effort are underway.
ENFORCEMENT OF EXISTING LAWS RELATED TO SALMON		
II Enf-1	Implement compliance programs	WDDOT developing HPA compliance program as part of ESB6188 (Environmental Permit Streamlining Act). Ecology will provide technical assistance, inspections and formal enforcement to ensure water quality standards are being met; target is 75 inspections/quarter. Focus compliance on metering 80% of water use in fish critical basins. WDFW will begin implementing Cooperative Compliance Programs in 3 basins (Walla Walla, Upper Yakima/Kittitas, and Nooksack).
II Enf-2	Develop and implement a compliance/accountability database	Develop Phase II of EPCS that will provide permit tracking and compliance monitoring for WSDOT activities. Development of Phase II will accommodate streamlined permit processes established under HB 6188.

Activities Report
2001-03 Expectations

Action ID	Action Item Title	Actions Carried Forward / Proposed in the 2001-2003 Biennium
PERMIT STREAMLINING		
II Per-1	Develop and implement Aquatic Habitat Guidelines	WDFW, WSDOT, and Ecology will publish Integrated Streambank Protection Guidelines; Fish Passage at Road Culverts, Fish Protection Screens, and Fishways; and Stream Habitat Restoration and Channel Design Guidelines. They will issue state-of-the-knowledge white papers on Water Crossings and Freshwater Sand and Gravel Removal.
II Per-2	Complete ESA compliance documents for transportation projects	Carry forward as budget allows Scorecard B1
ADAPTIVE MANAGEMENT AND MONITORING - SCIENCE ACTIVITIES		
II Sci-1	Develop recovery goals and rebuilding targets	Abundance and productivity associated with current, historic, and PFC habitat will be completed for 18 populations of Puget Sound Chinook and approximately 30 populations of steelhead, chinook, and chum in Lower Columbia. Population viability analyses will be completed for 21 populations of Puget Sound Chinook and 30 populations of steelhead, chinook, and chum in the Lower Columbia. Scorecard L3
II Sci-2	Establish and facilitate implementation of technical and scientific review process	Work of the SRFB's Technical Panel will be continued.It will review and evaluate Lead Entity project lists and provide advice on the criteria and process that will be used in this evaluation. Agencies will explore need for and approach to more detailed "how to" material for watershed assessment guidance and review recommended changes to Assessment Guidance based on user feedback. Scorecard K1, L3
II Sci-3	Provide scientific review and oversight	Tasks assigned to ISP during last biennium were completed, but scientific review is ongoing with SRFB, NMFS, and Monitoring Oversight Committee.
ADAPTIVE MANAGEMENT AND MONITORING - MONITORING ACTIVITIES		
II Mon-1	Facilitate the development of a statewide monitoring framework, criteria, and guidelines	Develop statewide monitoring strategy and action plan for consideration by Legislature and Governor. Scorecard K1 and L3.

Activities Report
2001-03 Expectations

Action ID	Action Item Title	Actions Carried Forward / Proposed in the 2001-2003 Biennium
II Mon-2	Implement Puget Sound Ambient Monitoring Program (PSAMP)	Agencies will continue to implement PSAMP. Approximately 35 freshwater and 34 marine water stations will be monitored monthly, and 20 long-term sediment stations will be sampled annually. Data will be updated on Ecology's web site, summarized in annual reports, and relevant results will be reported in the Puget Sound Update Report and at appropriate research conference.
II Mon-3	Update Salmonid Stock Inventory (SaSI) Project	WDFW will refine stock list for salmon and steelhead populaitons; revise quantitative stock status determination system; update data; provide public access to data via web.Scorecard A1
II Mon-4	Expand existing Salmon and Steelhead Habitat Inventory and Assessment Program (SSHIAP)	Develop existing Salmon and Steelhead Habitat Inventory and Assessment Program (SSHIAP) to electronically display salmonid habitat and distribution information, SaSI stock assessment data, SSHEAR fish passage barrier data. Information will be put into models to identify aquatic restoration and conservation needs and priorities, and provide electronic template for aquatic data storage. In fiscal year 2001, SSHIAP is funded solely by WSDOT as part of pilot implementation of SSB 6188. This work expects to complete for the lower Columbia (WRIAs 24-29) a geographic information system layer; update salmon barriers and stock distribution information; use SSHIAP data to run models that will help identify a list of prioritized areas for protection and restoration; and develop delivery mechanisms for SSHIAP system data to partners and other users.
II Mon-5	Spawner abundance monitoring	WDFW uses spawner abundance monitoring to provide data for fish population estimates; they expect to complete 342 separate spawning escapement estimates for salmon, steelhead, and bull trout populations in the Columbia River, coastal areas, and Puget Sound annually. Scorecard A2

Activities Report
2001-03 Expectations

Action ID	Action Item Title	Actions Carried Forward / Proposed in the 2001-2003 Biennium
II Mon-6	Salmonid production monitoring	WDFW will monitor key watersheds (over 30 sites in 14 WRIAs) to estimate number of smolts produced; develop production estimates for each system. Information will become part of long-term database to allow assessment of inter-annual variation with natural and human-caused affects. Ecology will continue to monitor systems to determine quality and quantity of water for fish and other beneficial uses. Scorecard E2, A2
ADAPTIVE MANAGEMENT AND MONITORING - DATA ACTIVITIES		
II Dat-1	Develop and implement salmon recovery information management plan	Agencies will develop web access to selected data resources via data portal. Scorecard M1
II Dat-2	Track funds allocated for salmon habitat projects and activities	IAC will continue to improve PRISMs ability to report information on SRFB-funded salmon recovery projects; work with UEPRS, SSHIAP, the NWPPC and other organizations to improve compatibility of databases; develop and implement an interactive map system on the SRFB web site to provide information about salmon recovery projects funded by the Board. Scorecard K2
II Dat-3	Inventory nearshore habitat	Cooperative project with US Army Corps of Engineers (COE) and state agencies will study feasibility of large and small-scale habitat restoration projects in Puget Sound nearshore areas. Other products will include a model of nearshore habitat, nventory data stored as part of data portal project,limiting factors analysis for salmon and other key species, and selection criteria for habitat restoration.
ADAPTIVE MANAGEMENT AND MONITORING - RESEARCH ACTIVITIES		
II Res-1	Study predation on salmon	WDFW will study level and distribution of salmonid predation - particularly summer chum - by harbor seals in Hood Canal.There are no plans to continue research on Caspian terns unless further funding can be secured.
ADAPTIVE MANAGEMENT AND MONITORING - SALMON REPORT		
II Rep-1	Prepare "State of Salmon Report" and revision to Statewide Strategy to Recover Salmon (SSRS)	GSRO will issue State of Salmon Report December 2002.

Activities Report
2001-03 Expectations

Action ID	Action Item Title	Actions Carried Forward / Proposed in the 2001-2003 Biennium
REGIONAL RESPONSE		
II Reg-1	Create toolbox of recovery materials	GSRO will publish Roadmap. WDFW will develop Model Recovery Plan.
II Reg-2	Provide technical assistance to regional organizations	JNRC will meet annually with each regional organization to discuss regional work plan and identify agency commitments. Agencies will include specific assistance in staff work plans. GSRO will assist Regional Organizations developing recovery plans.
II Reg-3	Provide technical assistance for local watershed salmon responses	Ecology will increase watershed planning technical and financial assistance to 43 WRIAs and provide instream flow grants to watershed planning units interested in making recommendations for flows within their basin. 10 watershed plans are expected to be completed. WDFW's Watershed Stewardship Teams (WSTs) will provide techical assistance to Lead Enitities, local governments, and landowners in all aspects of salmon protection and recovery, from engineering help in developing complex habitat restoration projects to assistance with proposals that protect and restore freshwater and estuarine habitats.
II Reg-4	Complete the limiting factors analysis	18 WRIA Limiting Factors reports will be completed, bringing total to 45 of State's 62 WRIAs. These are all of the salmon and steelhead producing WRIAs plus WRIA 62 (Pend Oreille) which is bull trout only. All WRIAs with a lead entity will have a completed limiting factors report by the end of the 01-03 biennium. Scorecard L4
II Reg-5	Provide and administer grants for salmon recovery	The SRFB's third grant cycle is under way with applications due Nov. 31, 2001. A fourth grant cycle will be held in 2002 if funding is available. WDFW will continue grant support for up to 26 Lead Entities, and will provide an additional $1 million in grants for development of salmon recovery plans. An separate grant will assist Lower Skykomish River Habitat Conservation Group develop a salmon recovery plan.
II Reg-6	Begin Columbia and Snake River water initiatives	Designed to complement ongoing watershed planning, these two initiatives will result in updated and accurate science information and instream flow rules for the mainstems.

Activities Report
2001-03 Expectations

	Action ID	Action Item Title	Actions Carried Forward / Proposed in the 2001-2003 Biennium	
	II Reg-7	Provide Washington Wildlife and Recreation Program (WWRP) grants for salmon habitat projects	WWRP will continue to be an important program for acquisition of important salmon habitat.	

Salmon Recovery Scorecard

In August 2000 the Joint Natural Resources Cabinet published the first Salmon Recovery Scorecard. It was a management tool for agencies to track progress towards achieving goals in the *Statewide Strategy to Recover Salmon*. After extensive discussions with stakeholders, 38 indicators were selected to monitor our actions. Since the Salmon Recovery Scorecard was developed, the Monitoring Oversight Committee has done much work to develop recommendations for a comprehensive monitoring strategy for Washington. It is likely the Salmon Recovery Scorecard will undergo significant remodeling in the coming months and may even be absorbed or replaced by other monitoring choices.

Monitoring results from 18 indicators are presented in this document.

Salmon Recovery Scorecard

Goal: Restore salmon, steelhead, and trout populations to healthy and harvestable levels and improve habitat on which fish rely.

To protect an important element of Washington's quality of life ...

A. Wild salmon populations will be productive and diverse.

1. Percentage of wild stocks classified as healthy.
2. Percentage of monitored watersheds/WRIAs where juvenile salmon production and productivity targets are being met.
3. Percentage of listed wild stocks meeting spawner objectives.

B. We will meet the requirements of the Endangered Species Act/Clean Water Act.

1. Percentage of key state programs consistent with ESA and CWA requirements.
2. Number of recovery plans submitted to NMFS/USFWS; number approved by NMFS/USFWS.
3. Impact on Washington and regional economies after Salmon Strategy has been in effect.

Our habitat, harvest, hatchery, and hydropower activities will benefit wild salmon.

C. Freshwater and estuarine habitats are healthy and accessible.

1. Miles of accessible, fish-bearing streams with high, medium, low and unknown quality riparian and floodplain conditions.
2. Miles of streams opened by correcting passage barriers and screen obstructions.
3. Percentage of hydro projects (dams and water impoundments) operating in a way that is a totally/mostly/partially/not "fish friendly" manner.
4. Percentage of marine and estuarine habitats with high, medium, low, and unknown quality.

D. Rivers and streams have flows to support salmon.

1. Volume of water restored to salmon streams where water availability is a limiting factor.
2. *Phase-in indicator:* Percentage of salmon streams with flows that, over time, closely mimic natural conditions. (WQI)

E. Water is clean and cool enough for salmon.

1. Percentage of monitored salmon-listed waters with polluted water for which clean water plans have been developed.
2. *Phase-in indicator:* Percentage of WRIAs with acceptable WQI readings.

F. Hatchery practices meet wild salmon recovery needs.

1. Percentage of hatchery facilities and programs operating in a way that is consistent with wild salmon recovery.

G. Harvest management actions protect wild salmon.

1. Percentage of wild stocks where harvest protection goals have been met.

H. Enhance compliance with resource protection laws.

1. Average compliance rate for fishers by key fishery.
2. Compliance rate for each key habitat protection regulation.
3. Percentage of local governments that have adopted ESA-consistent shoreline master programs.

We are engaged with citizens and our salmon recovery partners.

I. We will reach out to citizens.

1. Number of JNRC agency communications and outreach efforts supporting salmon recovery objectives.
2. Percentage of improvement in citizen awareness measured through “salmon self-assessment.”
3. Number of people involved in volunteer watershed stewardship, salmon protection or restoration activities.

J. Salmon recovery roles are defined and partnerships strengthened.

1. Number of ESUs where agreement exists among governments regarding how salmon recovery decisions will be made.

Coordinated science-based salmon recovery efforts are our building blocks for success

K. Achieve cost-effective recovery and efficient use of government resources.

1. Number of state salmon recovery regions with a coordinated and science-based process for identifying and evaluating, and then setting priorities for salmon recovery projects within those regions.
2. Percentage of salmon recovery funds spent on: restoration, preservation, assessments, separate monitoring and evaluation, separate planning, and administration.
3. Percentage of grant applicants who strongly agree that the funding process is helpful, fair, simple, effective, and informative.

L. Use the best available science and integrate monitoring and research with planning and implementation.

1. Percentage of projects funded that are identified in science-based assessments meeting baseline criteria.
2. Number of key guidelines for projects and activities affecting habitat submitted to NMFS/USFWS; number approved by NMFS/USFWS.
3. Number of ESUs with recovery goals established.
4. Number of WRIAs with baseline assessments completed.
5. Number of peer-reviewed applied research and monitoring efforts addressing critical salmon recovery issues.

M. Citizens, salmon recovery partners, and state employees have timely access to the information, technical assistance, and funding they need to be successful.

1. Percentage of data systems and data sets supporting salmon recovery that meet requirements for integration, accessibility, usability, importance, degree of analysis/technical ability required for use, geographic coverage, and geographic data accuracy.
2. Percentage of priority projects where authorized federal funding subject to ESA consultation is spent in a timely manner.
3. Number of key protocols developed and communicated for collection, assessment, and evaluation; number approved by NMFS/USFWS.
4. Amount of funding and technical assistance provided to salmon recovery partners.
5. Percentage of salmon recovery partners that are highly satisfied with coordination, cooperation, and services provided by state agencies.

Detailed data reports from 18 Salmon Recovery Scorecard indicators follow

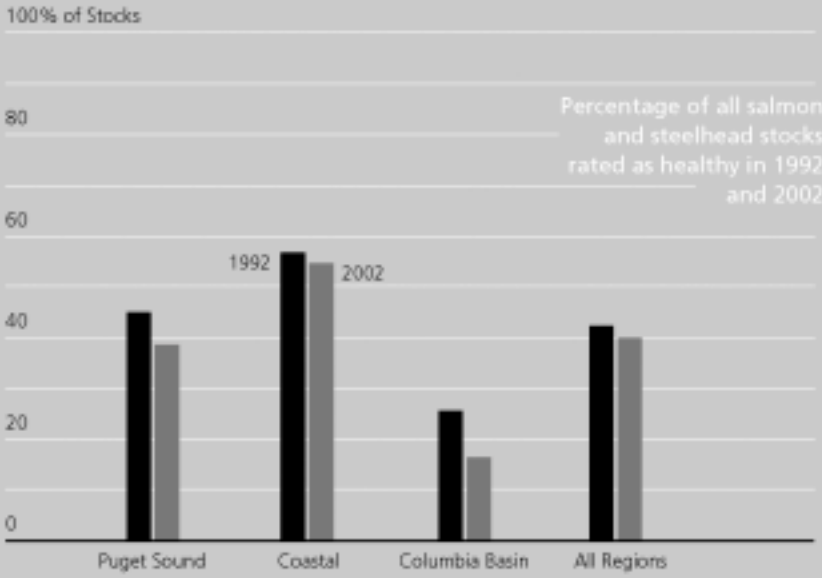
GOAL

Wild salmon populations will be productive and diverse.

INDICATOR

Percentage of wild stocks classified as healthy.

The majority of wild stocks in Washington are not healthy, and there has been little real change since 1992.

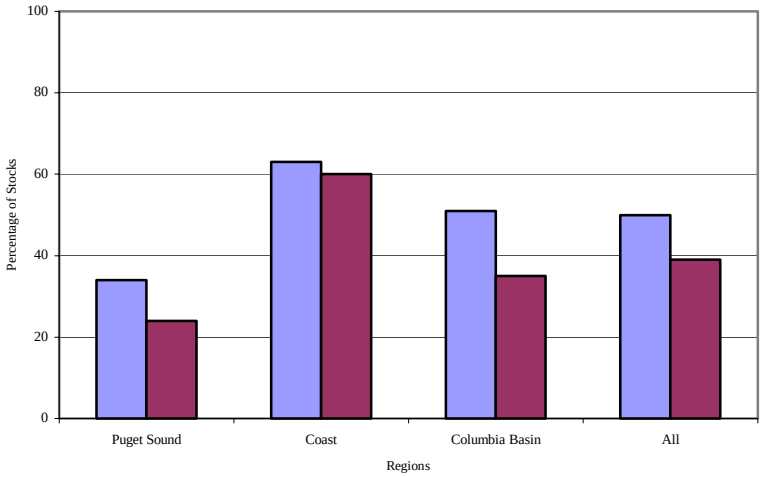


DATA SOURCE: WASHINGTON DEPARTMENT OF FISH AND WILDLIFE, SALMON AND STEELHEAD INVENTORY (SaSI).

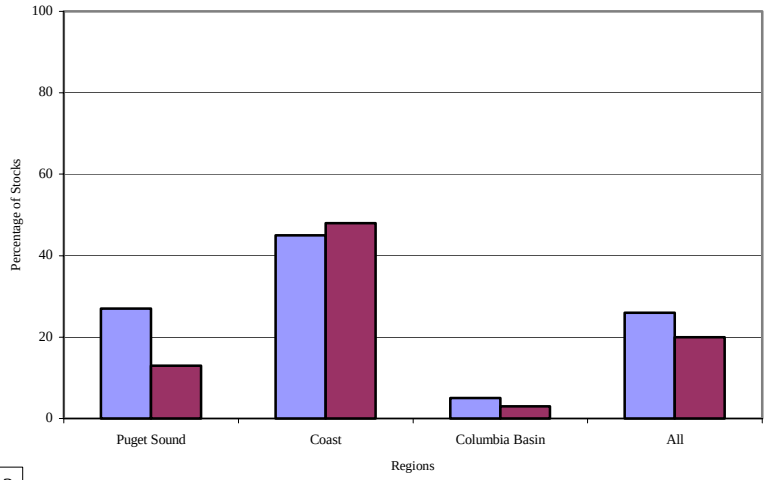
- **Healthy stocks** are defined in SaSI as those currently experiencing stable escapement, survival, and production trends and not displaying a pattern of chronically low abundance.
- A stock may be considered healthy by absence of declining trends, but still may not be considered healthy by ESA or other recovery standards.
- First comprehensive status update since 1992 is underway but not complete.
- Status ratings are draft because they do not yet have tribal agreement.
- Status changes from 1992-2002 are largely a reflection of changes in methods of counting and analyzing data—overall, what little real change that has occurred in status from 1992 is negative.

Additional Data:

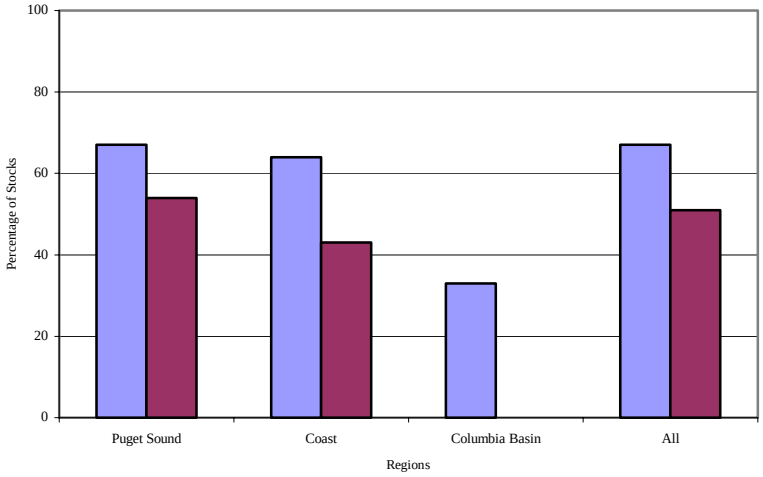
Percentage of Chinook Stocks Rated as Healthy in 1992 and 2002 (draft)



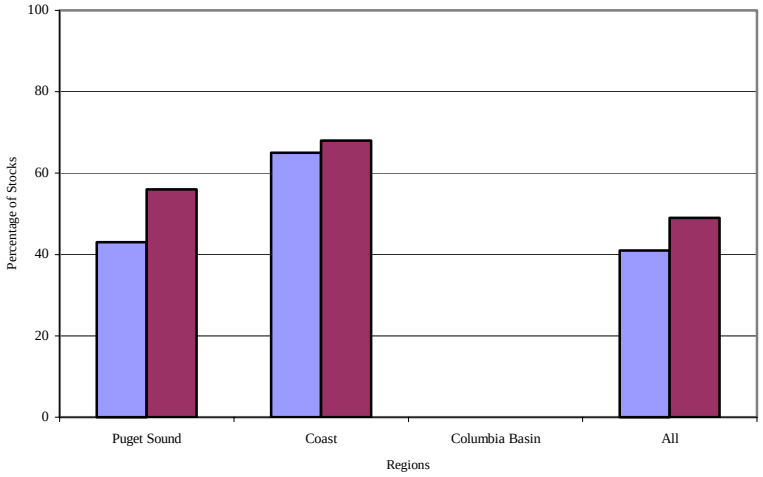
Percentage of Steelhead Stocks Rated as Healthy in 1992 and 2002 (draft)



Percentage of Chum Stocks Rated as Healthy in 1992 and 2002 (draft)



Percentage of Coho Stocks Rated as Healthy in 1992 and 2002 (draft)



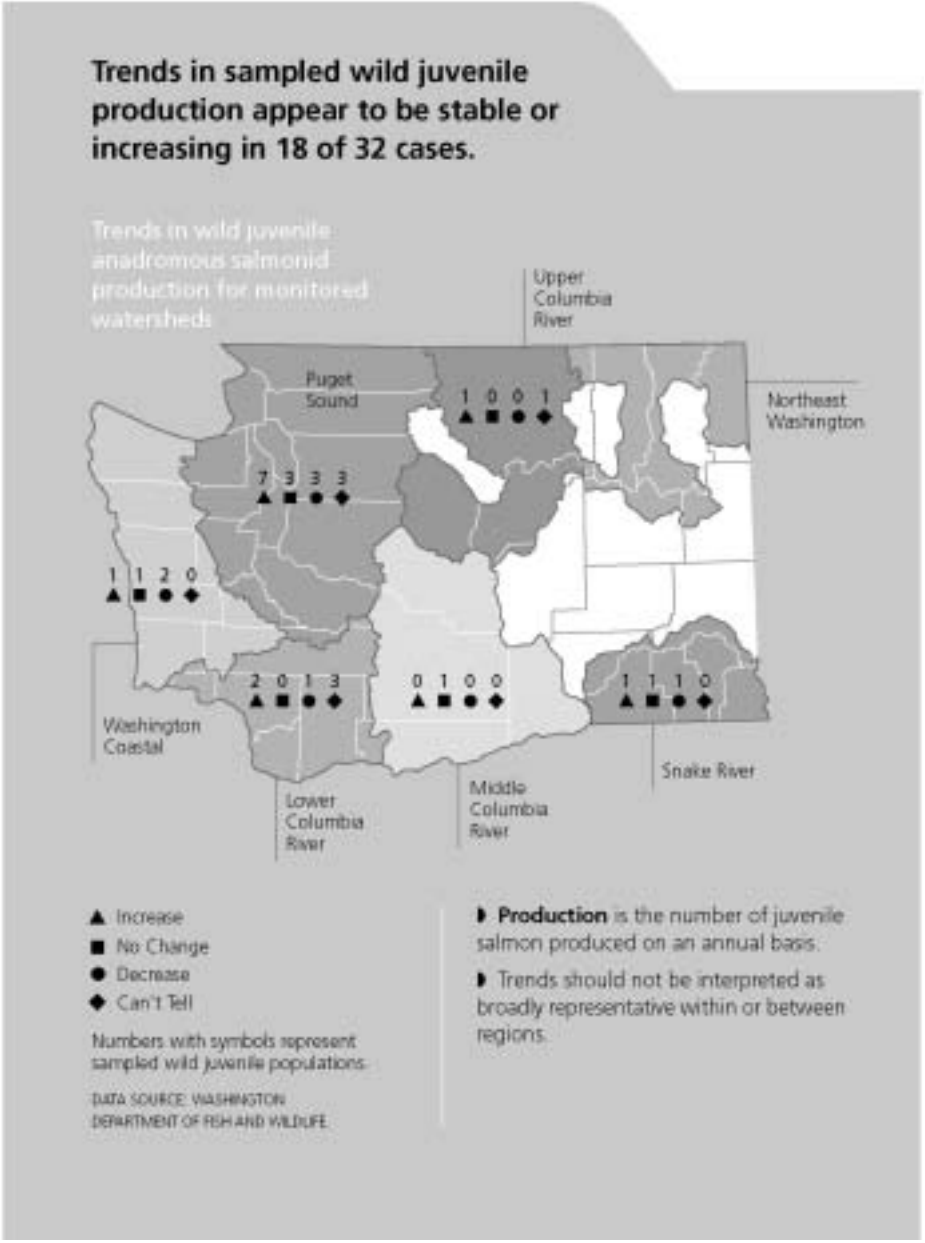
Data Source: Washington Department of Fish and Wildlife

GOAL

Wild salmon populations will be productive and diverse.

INDICATOR

Trends in wild juvenile anadromous salmon production for monitored watersheds.



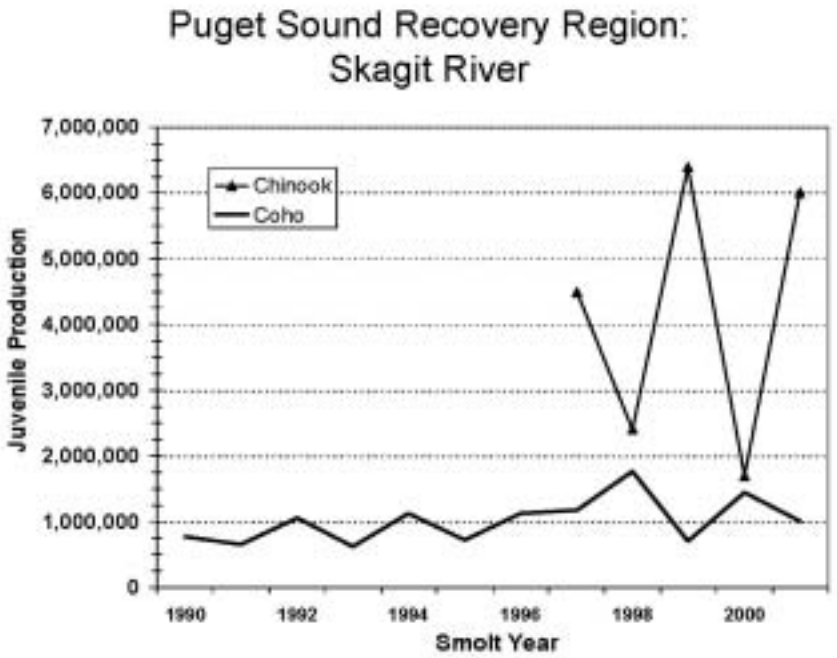
Additional Data:

	Trend			
Region	**Increase**	**Decrease**	**No change**	**Can't tell**
Puget Sound	• Skagit coho (l) • Cedar coho (s) • Bear Ck sockeye (s) • Big Beef Ck steelhead (l) • Big Beef Ck cutthroat (l) • Snow Ck coho (l)	• Cedar chinook (s) • Bear Ck coho (s) • Deschutes coho (l)	• Skagit chinook (s) • Bear Ck chinook (s) • Cedar sockeye (l) • Big Beef Ck coho (l)	• Green chinook (s) • Green coho (s) • Snow Ck steelhead (l)
Coast	• Bingham Ck coho (l)	• Bingham Ck cutthroat (l) • Chehalis coho (l)	• Bingham Ck steelhead (l)	
Lower Columbia	• Kalama steelhead (s) • Cedar Ck cutthroat (s)	• Cedar Ck steelhead (s)		• Kalama chinook (s) • Kalama cutthroat (s) • Cedar Ck coho (s)
Mid Columbia			• Wind steelhead (s)	
Upper Columbia	• Chiwawa chinook (l)			• Wenatchee sockeye (s)
Snake	• Tucannon steelhead (s)	• Tucannon spring chinook (l)	• Tucannon fall chinook (s)	
TOTAL	11	7	7	7

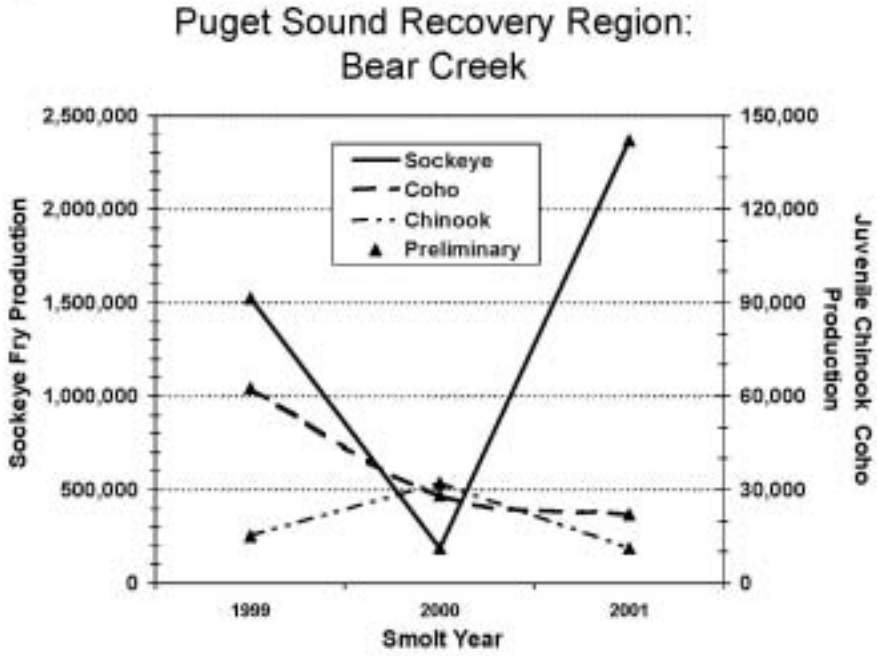
Data Source: Washington Department of Fish and Wildlife

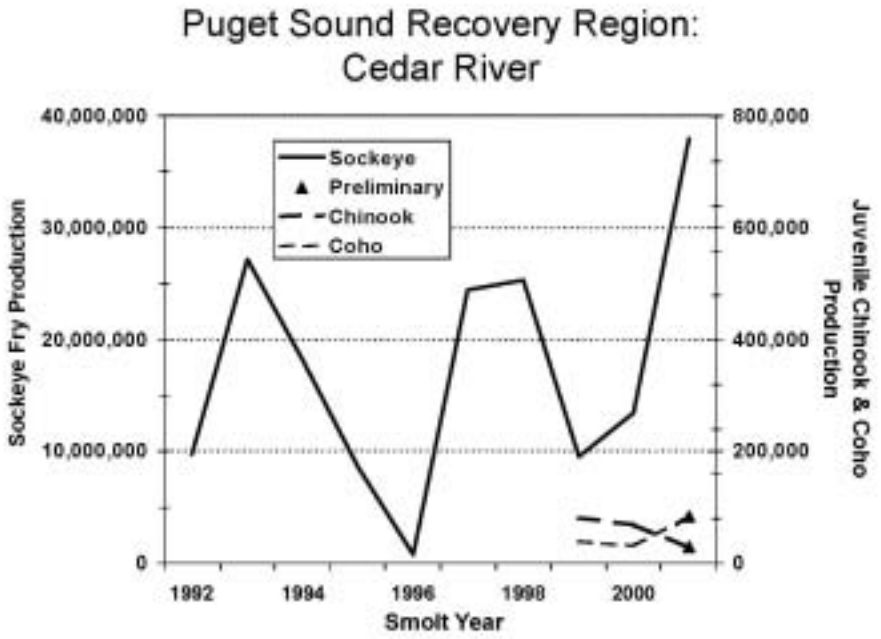
Comments:

- Trends should not be interpreted as broadly representative within or between regions.
- Trends were interpreted from visual inspection of data plots; some trends were based on short term (s) patterns (about a 5-year interval), and others were based on long term (l) patterns (over about 10-years, or more).
- Data were not statistically analyzed.
- Delineation under "Can't tell" is due to short time series or data with unusually large year-to-year variation.

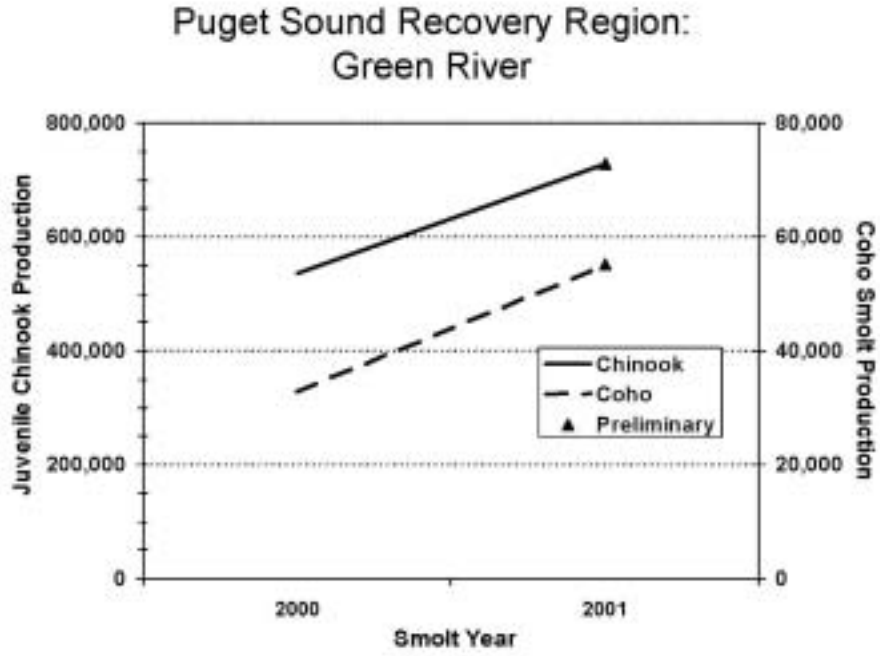


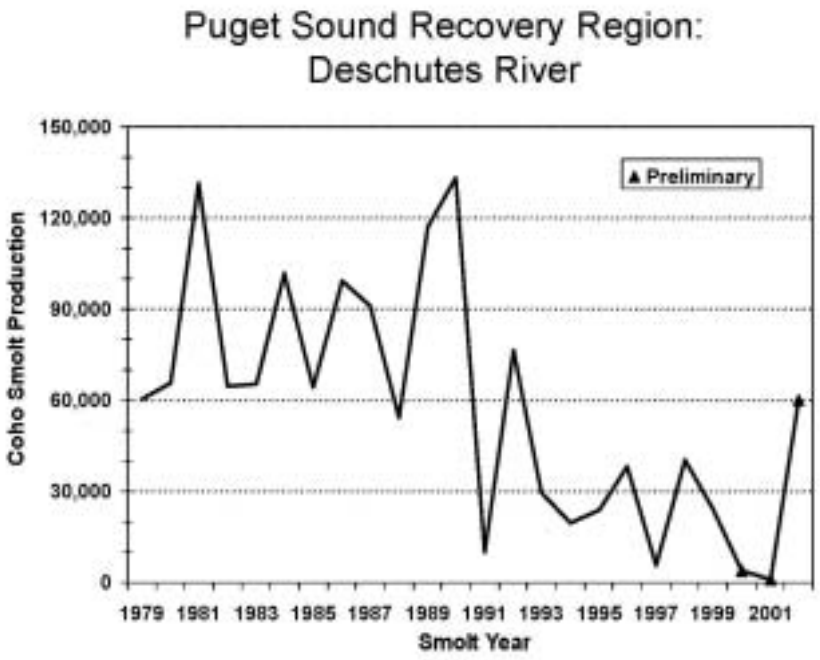
Data Sources: Washington Department of Fish and Wildlife



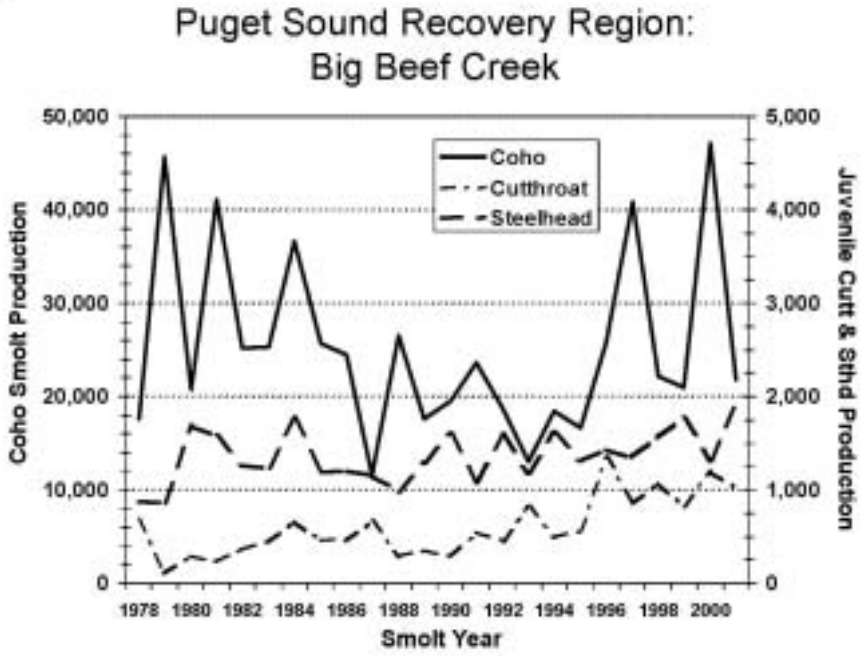


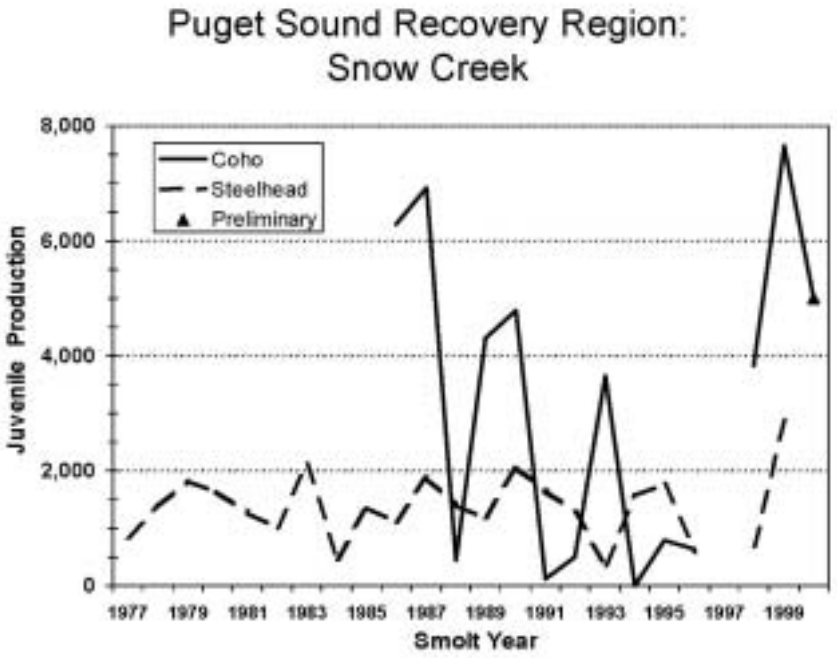
Data Sources: Washington Department of Fish and Wildlife



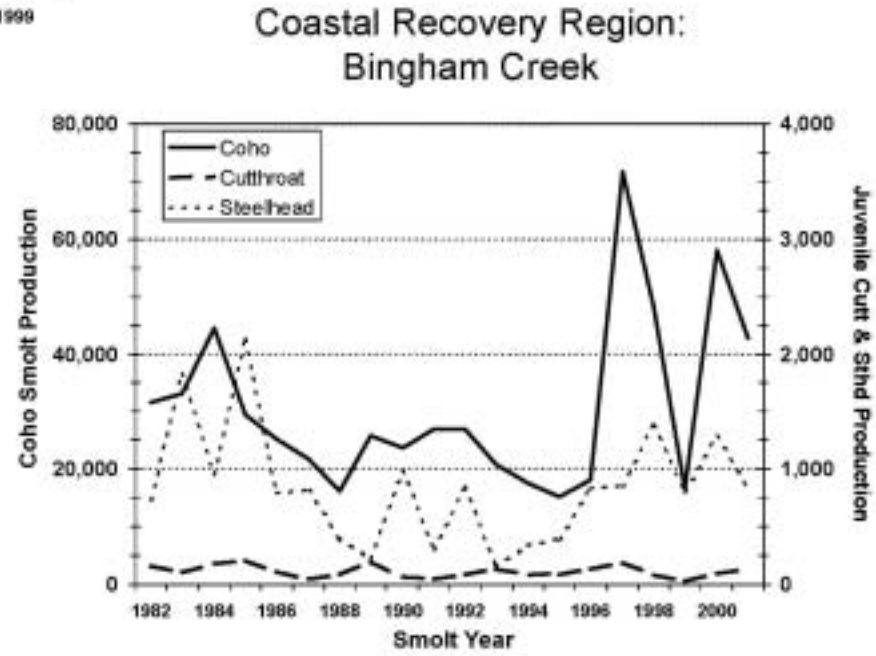


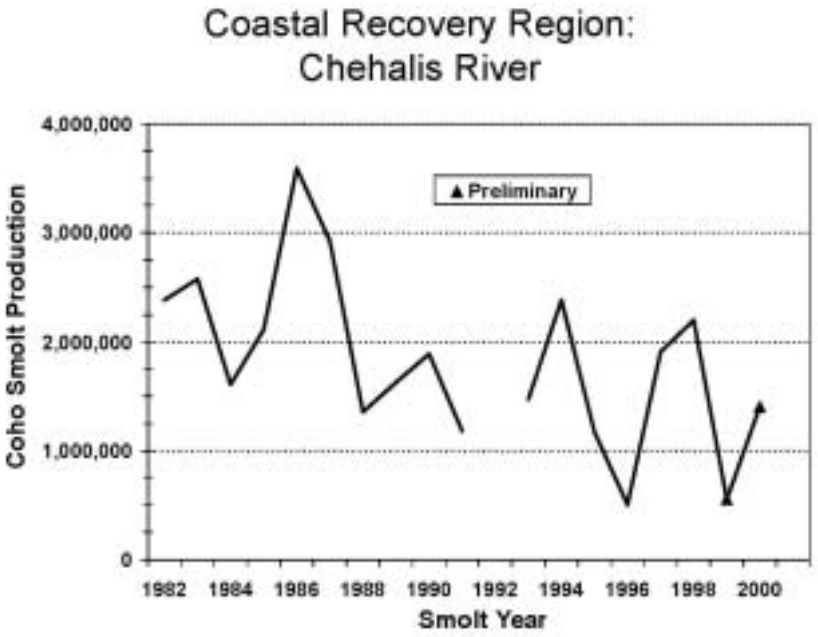
Data Sources: Washington Department of Fish and Wildlife



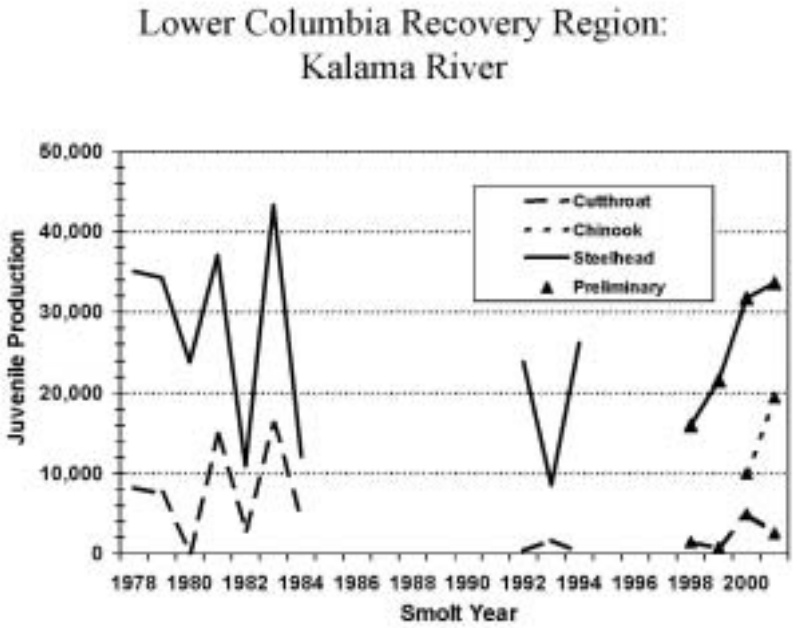


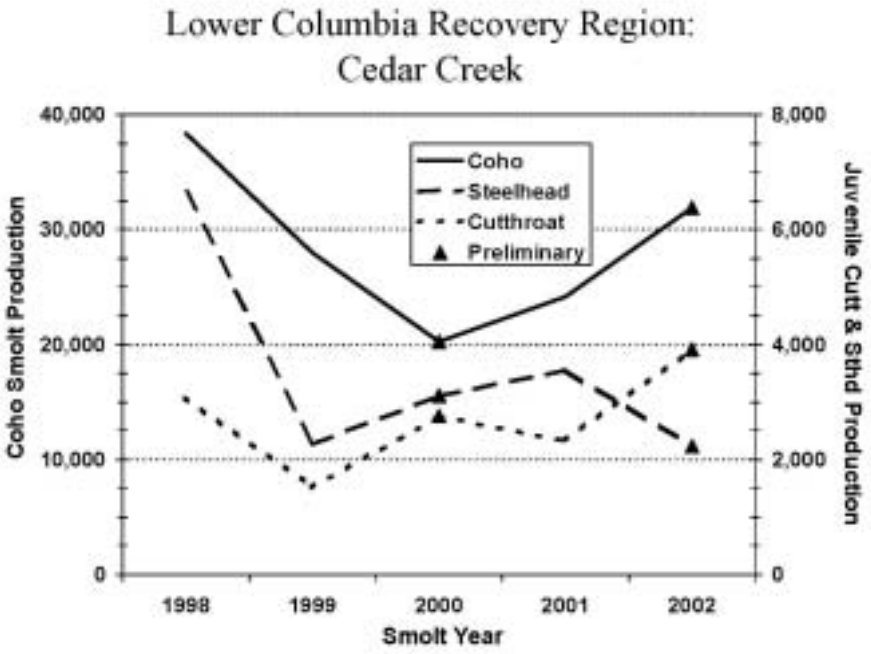
Data Sources: Washington Department of Fish and Wildlife



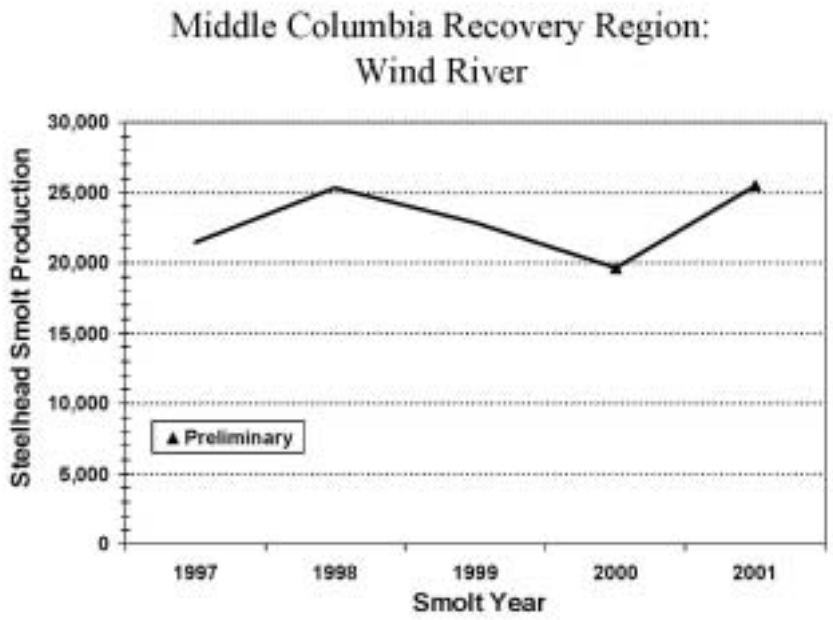


Data Sources: Washington Department of Fish and Wildlife

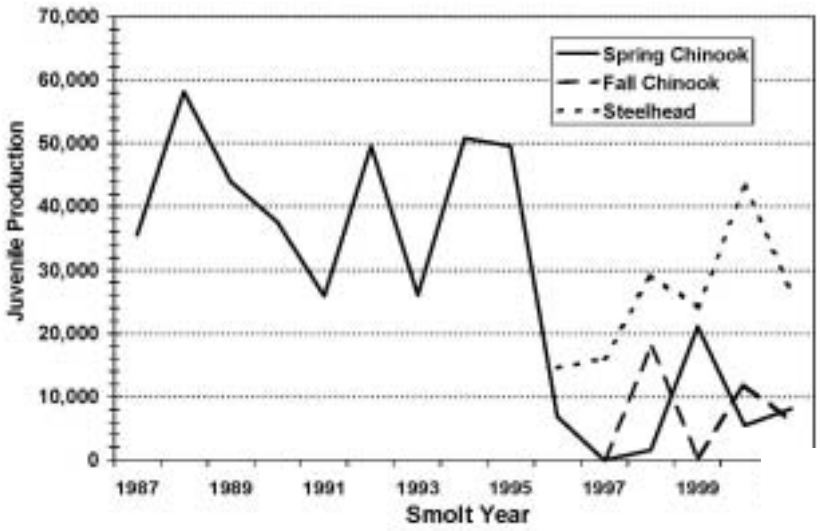




Data Sources: Washington Department of Fish and Wildlife

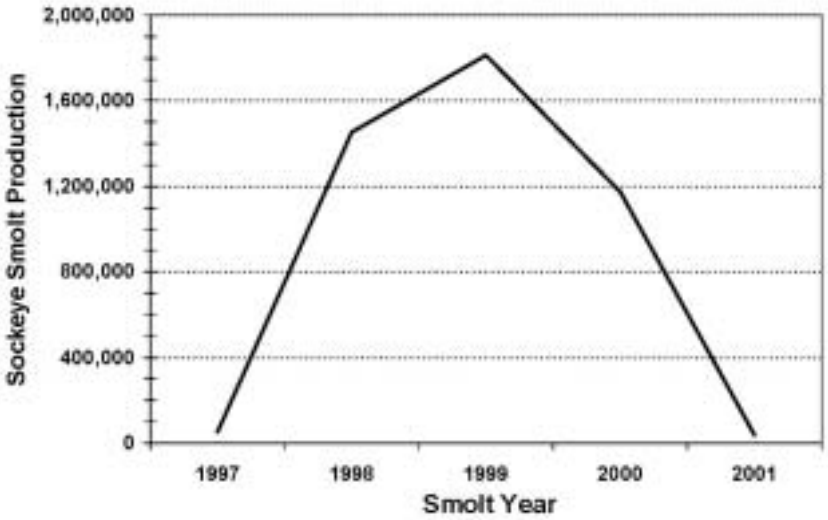


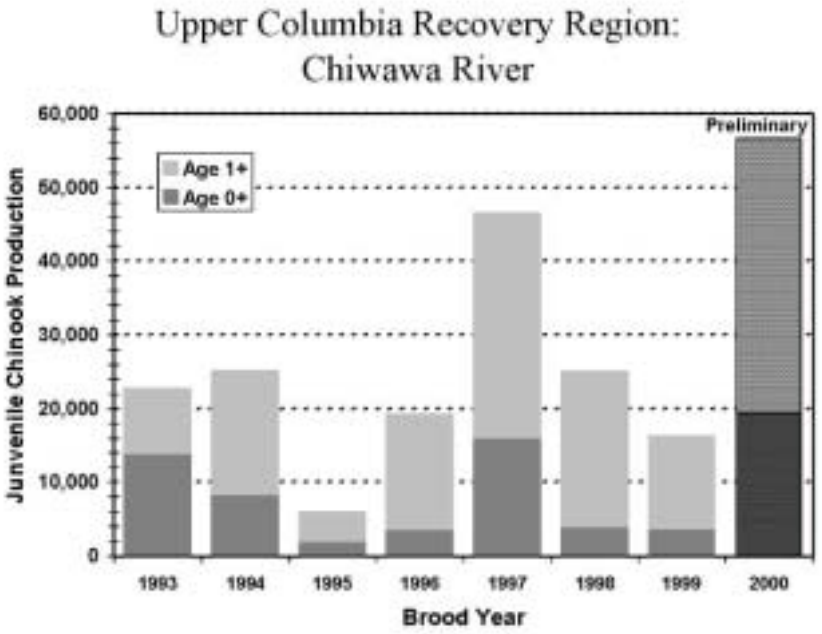
Snake River Recovery Region:
Tucannon River



Data Sources: Washington Department of Fish and Wildlife

Upper Columbia Recovery Region:
Wenatchee River





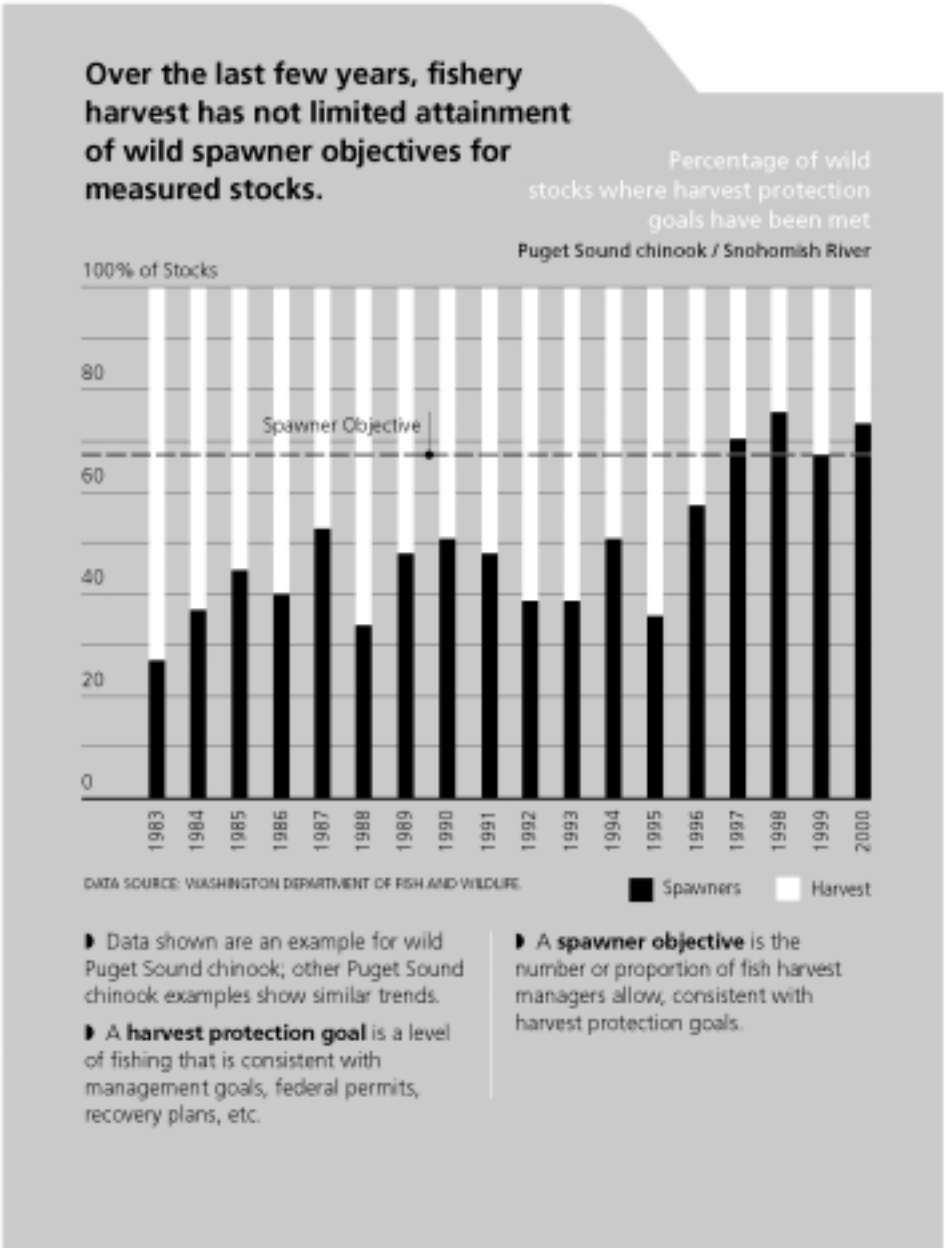
Data Source: Washington Department of Fish and Wildlife

GOAL

Wild salmon populations will be productive and diverse.

INDICATOR

Percentage of wild stocks where harvest protection goals have been met.



Additional Data:

Number of Stocks Measured for Achieving Conservation Objectives of Harvest Regulation

Species	Total Stocks	Puget Sound	Coast	Columbia River	Year measured and Objective Type
Chinook	23	11	8	4	2001; Spawner goal, expl. Rate, index
Coho	10	6	4		2001; Spawner goal, expl. Rate
Chum	12	9	2	1	1999; Spawner goal
Pink	3	3			1999; Spawner goal
Sockeye	2	2			2000; Spawner goal

Data Source: Washington Department of Fish and Wildlife

GOAL

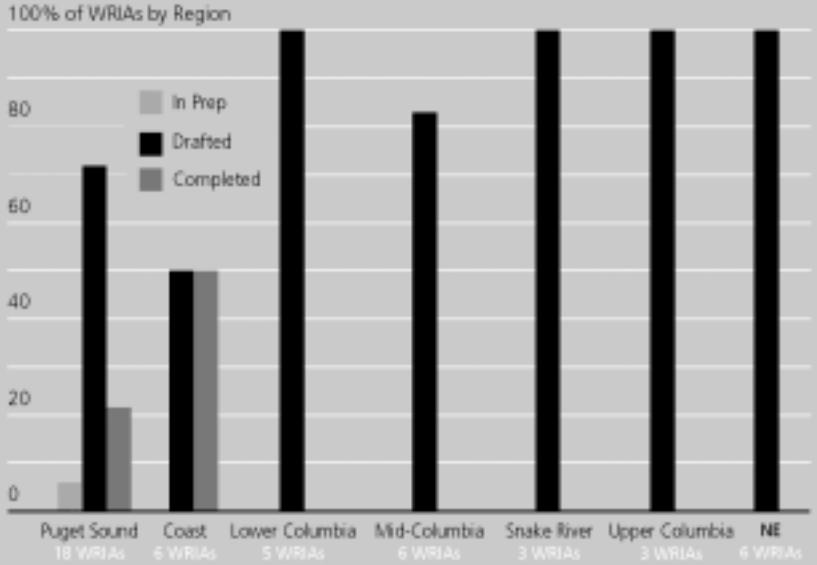
We have coordinated, science-based salmon recovery efforts.

INDICATOR

Number of state salmon recovery regions with a coordinated and science-based process for identifying and evaluating, and then setting priorities for salmon recovery projects within those regions.

Lead Entity strategies have been drafted that when aggregated, cover several regions.

State salmon recovery regions with a coordinated and science-based process for identifying and evaluating, and then setting priorities for salmon recovery projects within those regions



DATA SOURCE: INTERAGENCY COMMITTEE FOR OUTDOOR RECREATION

- Two expressions of the indicator were chosen to track: The number of WRIAs with baseline assessments completed; and the status of Lead Entity strategies for habitat protection and restoration projects.
- Regionally integrated assessment/ strategies exist only for the Lower and Upper Columbia Regions.
- No analysis has been done to determine the quality of assessments or Lead Entity strategies, at either a WRIA scale or regional scale.

Additional Data:

Assessment Stages Status
Percentage of WRIAs by Region

	Puget Sound	Coast	Lower Columbia	Mid-Columbia	Snake River	Upper Columbia	Northeast
Stage I	83	100	100	100	100	100	0
Stage II	11	0	0	0	0	0	0
Stage III	28	0	20	50	0	0	0

Lead Entity Strategy Status
Percentage of WRIAs by Region

	Puget Sound	Coast	Lower Columbia	Mid-Columbia	Snake River	Upper Columbia	Northeast
In prep	6	0	0	0	0	0	0
Drafted	72	50	100	83	100	100	100
Completed	22	50	0	0	0	0	0

Data Sources: Governor's Salmon Recovery Office

Comment:

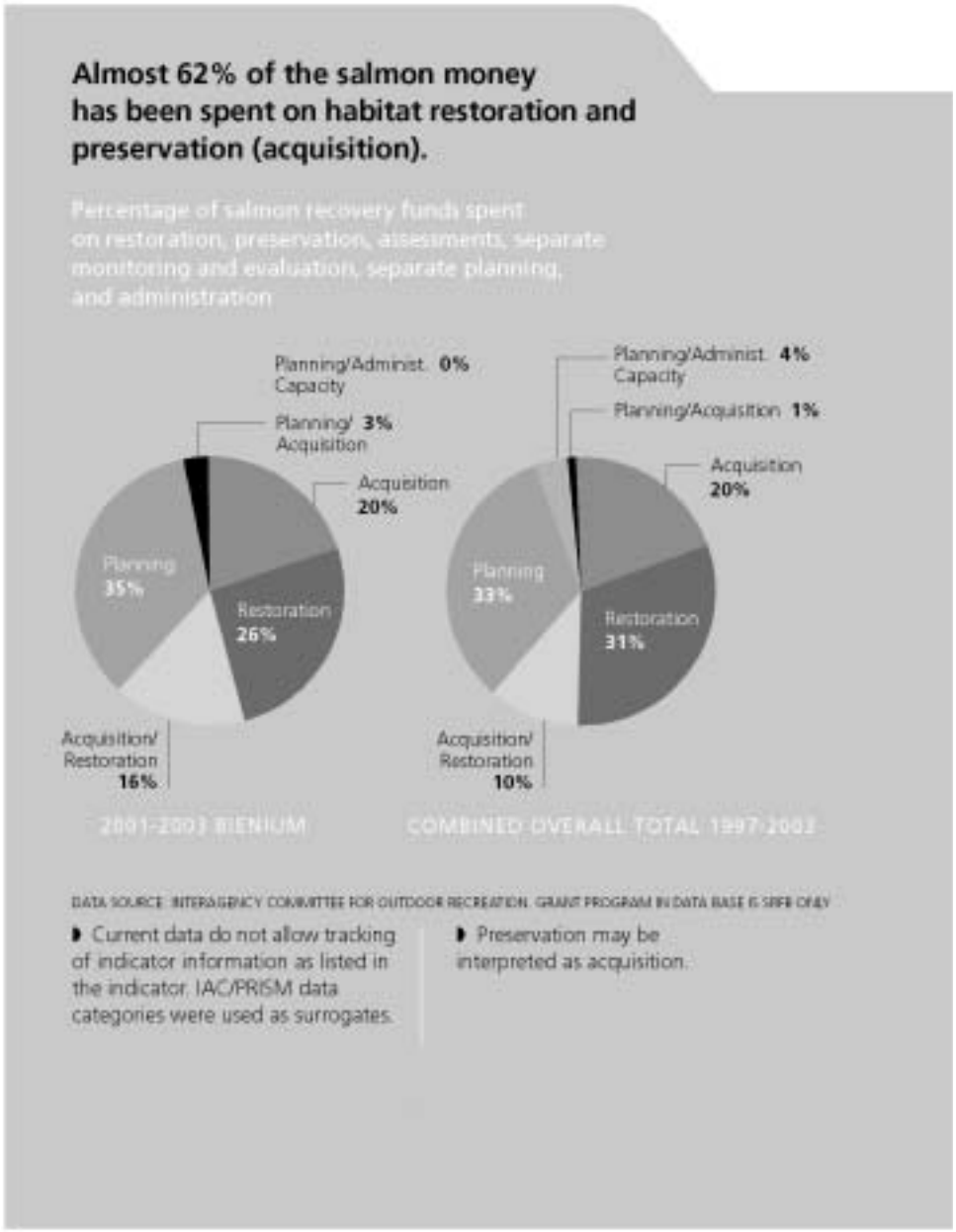
- Two expressions of the indicator were chosen to track: The number of WRIAs with baseline assessments completed; and the status of Lead Entity strategies for habitat protection and restoration projects.

GOAL

We have coordinated, science-based salmon recovery efforts.

INDICATOR

Percentage of salmon recovery funds spent on restoration, preservation, assessments, separate monitoring and evaluation, separate planning, and administration.



Additional Data:

Salmon Awards by Type of Project (as of September 2002)

	97-99 Biennium	99-01 Biennium	01-03 Biennium	Total	%
Acquisition	6,154,074	12,749,561	10,158,905	29,062,540	19.88%
Restoration	7,110,922	24,890,294	12,704,267	44,705,483	30.58%
Acquisition/Restoration	23,540	8,455,834	8,020,448	16,499,822	11.29%
Planning	0	31,012,237	17,236,892	48,249,129	33.01%
Planning/Administrative Capacity	6,115,747	0		6,115,747	4.18%
Planning/Acquisition	0	0	1,552,932	1,552,932	1.06%
Total	**19,404,283**	**77,107,926**	**49,673,444**	**146,185,653***	**100.00%**

* Totals do not include approximately $6.2 million in funds not categorized

Salmon Recovery Awards by Source (as of September 2002)

	97-99 Biennium	99-01 Biennium	01-03 Biennium	Total
SRFB awarded funds (state & federal)		$77 million	$49 million	$126 million
IRT awarded funds (state)		$5.4 million		$5.4 million
GSRO awarded funds (federal)	$19 million			$19 million
WDFW awarded funds (state)	$2 million			$2 million
Total	**$21 million**	**$82.4 million**	**$49 million**	**$152.4 million**

Data Source: Salmon Recovery Funding Board

GOAL

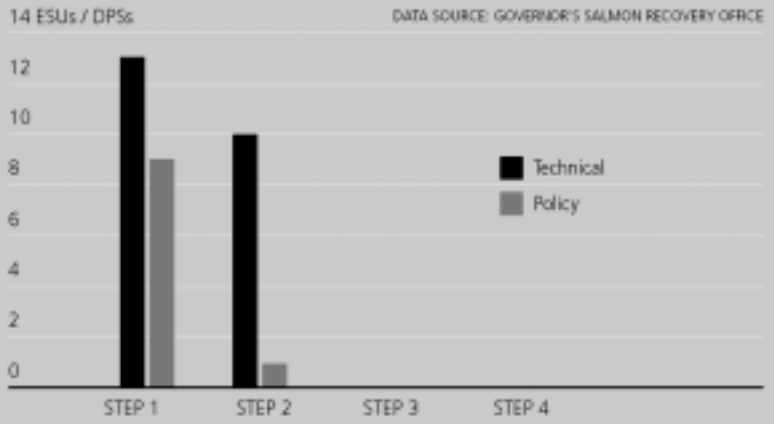
We have coordinated, science-based salmon recovery efforts.

INDICATOR

Number of ESUs with federally established recovery goals.

Although progress is being made, there are no ESUs in Washington with federally established recovery goals.

Number of ESUs with federally established recovery goals



The process of establishing goals is a four-step operation:

Step 1 Creation of a regional salmon recovery board/entity (policy group) that interfaces with a technical group, and both groups interact to develop region-wide recovery plans.

Step 2 Development of draft recovery goals for identified populations that are the product of interaction between technical and policy groups. This stage drafts products that go to watershed groups and others for broader public review

Step 3 Development of draft Evolutionarily Significant Unit (ESU) / Distinct Population Segment (DPS) recovery goals. This stage reflects efforts to "add up" watershed salmon recovery efforts at the ESU/DPS scale.

Step 4 Establishment of final salmon recovery goals are the products resulting from agreement and commitment of those in regions, watersheds, and others who affect salmon recovery (habitat-harvest-hatchery), and federal approval and adoption.

Additional Data:

Progress Towards Establishing Recovery Goals – by Region						
Region	**Step 1** (regional process in place – tech & policy)		**Step 2** (draft population goals) (tech only) (tech & policy)		**Step 3** (draft ESU/DPS goals)	**Step 4** Final Recovery Goals
	Technical	Policy	Technical	Policy		
Puget Sound						
• Chinook	x	x	x	x (mostly)		
• Chum	x	x				
• Bull trout	x	x				
Coast						
• Sockeye (Ozette)						
• Bull trout	x					
L. Columbia						
• Steelhead	x	x	x			
• Chinook	x	x	x			
• Chum	x	x	x			
• Bull trout	x	x				
M. Columbia						
• Steelhead	x		x (interim)			
• Bull trout	x					
U. Columbia						
• Steelhead	x	x	x (interim)			
• Chinook	x	x	x (interim)			
• Bull trout	x	x				
Snake						
• Sockeye	x		x (interim)			
• Spr/sum Chinook	x		x (interim)			
• Fall Chinook	x		x (interim)			
• Bull trout	x					
Northeast						
• Bull trout	x					

Data Source: Governor's Salmon Recovery Office

Comments:

- Evolutionarily Significant Units – 12 total
- Distinct Population Segments – 2 total (Columbia Basin bull trout and Puget Sound/Coastal bull trout)

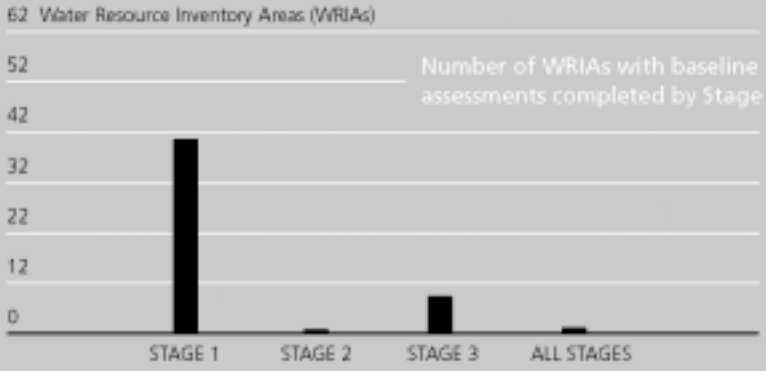
GOAL

We have coordinated, science-based salmon recovery efforts.

INDICATOR

Number of WRIAs with baseline assessments completed.

86% of watersheds involved in salmon recovery have completed their initial analysis of habitat conditions, but most have not yet analyzed the causes of the conditions and salmon response.



DATA SOURCE: CONSERVATION COMMISSION, REGIONAL ORGANIZATIONS, INTERAGENCY COMMITTEE FOR OUTDOOR RECREATION.

- **Baseline assessments** are those that are consistent with the Guidance on Watershed Assessment for Salmon (May 2001) which defines three stages: Stage I assesses habitat conditions, Stage II assesses causes of these conditions, and Stage III assesses salmon response.
- Data are based on the number of WRIAs with assessments equivalent to Stage I, II, and III.
- Sources of data include Limiting Factors Analyses, Watershed Assessments under the Watershed Planning Act, EDT, and others.
- No analysis has been done to determine quality of completed assessments or whether they are being applied to projects and watershed plans.
- 50 WRIAs have salmon and are considered in this indicator; 12 are not included.

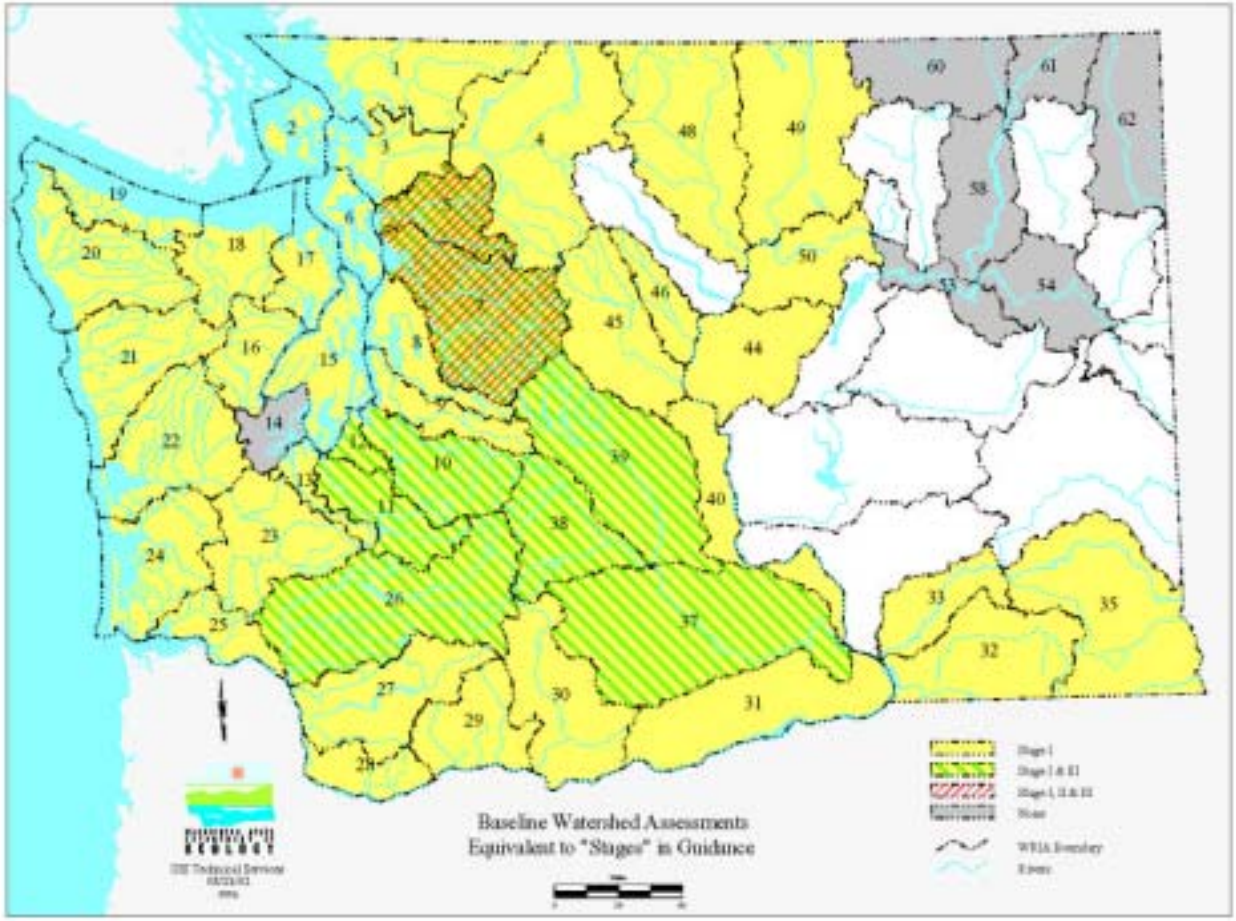
Additional Data:

Assessment Stages Status Percentage by WRIAS by Region

	Stage I	*Stage II*	*Stage III*
Puget Sound	83	11	28
Coast	100	0	0
Lower Columbia	100	0	20
Mid-Columbia	100	0	50
Snake	100	0	0
Upper Columbia	100	0	0
Northeast	0	0	0

Data Source: Governor's Salmon Recovery Office

Watershed Resource Inventory Areas Assessment Status



Data Source: Department of Ecology

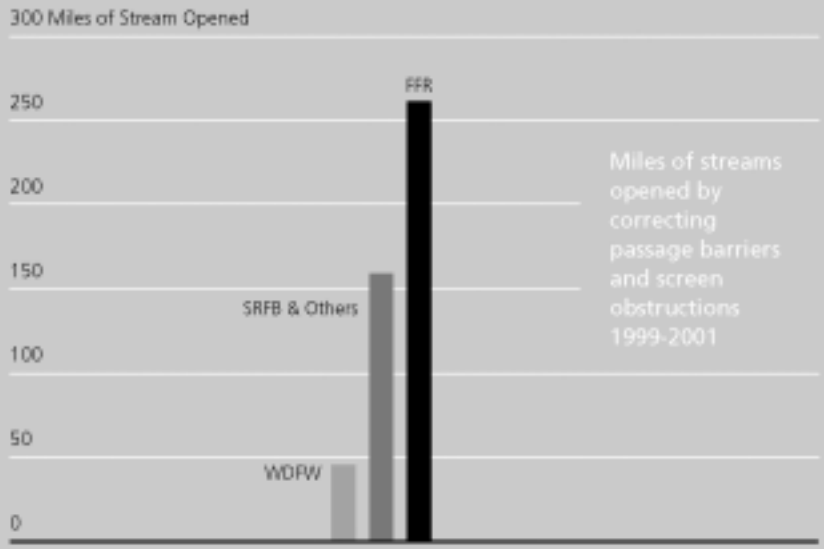
GOAL

Our habitat, harvest, hatchery, and hydropower activities will benefit wild salmon.

INDICATOR

Miles of streams opened by correcting passage barriers and screen obstructions.

During 1999-2001, over 400 miles of stream habitat were opened by projects.



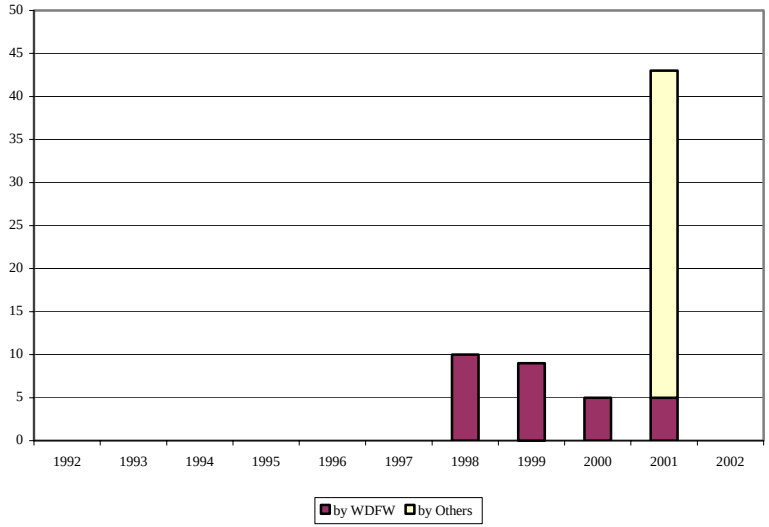
SRFB: Salmon Recovery Funding Board Projects.
WDFW: Washington Department of Fish & Wildlife Projects.
FFR: Forests and Fish Projects.

DATA SOURCES: ESTIMATIONS FROM WASHINGTON DEPARTMENT OF FISH AND WILDLIFE HPAs AND SSHEAR DATA, AND WASHINGTON FOREST PROTECTION ASSOCIATION (WFPA)

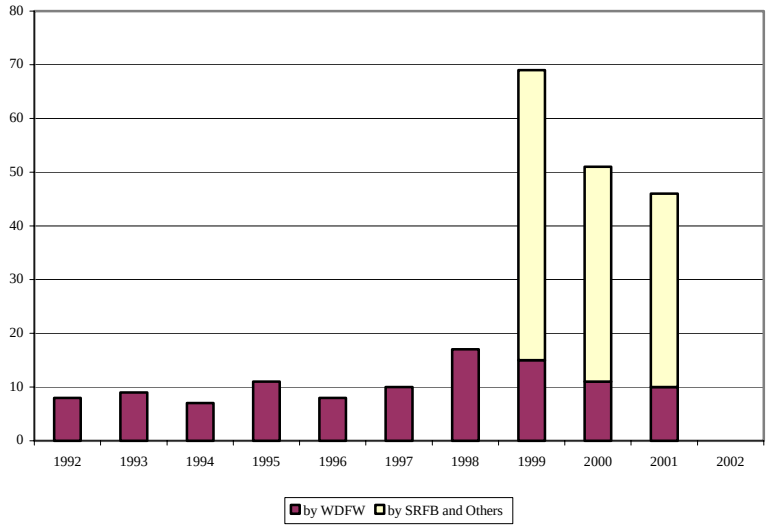
- During 1999-2001, an average fish passage barrier removal project not on forestlands opened 1.25 linear miles of stream.
- The average forestland passage barrier removal opened up 0.75 miles of habitat (WFPA estimates).
- SRFB project applicants estimate their projects have opened up 355 miles of streams (compared with 162 miles estimated by WDFW), so there is a need to validate both methods of estimation with on-the-ground inspections
- WDFW estimates more than 23,000 miles of stream habitat are blocked statewide.

Additional Data:

Number of Screening Projects



Number of Fish Passage Projects



Data Sources: Washington Department of Fish and Wildlife

Comments:

- ü Does not include Forests and Fish information.

Washington Department of Fish and Wildlife

600 Capitol Way N.
Olympia, Washington 98501
(360) 902-2565

Memorandum

October 29, 2002

To: Chris Drivdahl, Governor's Salmon Team

From: Dave Price, WDFW

At your request, we estimated the amount of stream miles made available to fish above repaired blockages for 2000 and 2001 on forest land. Counting state and private land, we estimate that 263.5 miles of fish habitat have been opened up. We based this figure on some important assumptions, as follows:

- WFPA provided summary data that they obtained from some of their associated landowners. Generally, these represent the largest private forest ownerships in Washington. Weyerhaeuser data are reported separately.
- WFPA data includes 2000, 2001, and 2002. At your request, I have included only the 2000 and 2001 data in the stream miles reported above.
- WFPA data indicate that an average of 0.75 miles of habitat have been made available for each barrier repair.
- WFPA data include resident fish and salmon streams. We cannot parse the data at this time.
- Weyerhaeuser provided data to WDFW directly. They report that 190 fish passage barriers were replaced or abandoned in 2000, 2001, and 2002. They indicate that 0.5 miles of habitat per barrier have been made available to fish. To accommodate your request that only 2000 & 2001 data be reported, I used the HPA database to calculate the proportion of 2000/2001 Weyco culvert replacements to the total in the HPA database for 2000-2002. The representative proportion (62%) was then multiplied to Weyerhaeuser's reported figure and included in the total above.
- The HPA database was not used in place of the WFPA and Weyerhaeuser data because WDFW did not have accurate information on stream miles of habitat in these forested reaches statewide.
- The HPA database was used to obtain the remaining total barrier replacements on state and private forests (non-WFPA data). To extrapolate the number of replacements to stream miles made available to fish, I used WFPA's estimator of 0.75 miles/barrier.
- Data based on the HPA database will likely under-represent the actual number of fish passage barrier replaced. Currently, our database may not account for more than one replacement if multiple barriers are included in any individual HPA. Therefore, especially with DNR replacements, stream miles made available to fish may be reported lower than they actually are.

Summary stats:

# of replaced barriers	Miles of habitat opened	Extrapolation figure	Source
162	121.5	0.75	Non-WFPA data. These data are from the HPA database (mostly DNR & smaller landowners).
[109]	[81.75]	[0.75]	Estimated DNR state-land barrier replacements from the HPA database. These figures are included in the non-WFPA total in the row above.
95	70.7	0.75	WFPA data from many of their associated landowners. Approximately 28 landowners contributed.
118	58.9	0.5	Weyerhaeuser data provided directly to WDFW.
18	13.5	0.75	WFPA data. These data had limited information provided. The extrapolation figure from WFPA was applied by WDFW as an estimate.
393	263.5		

WFPA provided important information. WFPA and their membership contribution should be acknowledged if the data are reported. Many assumptions are used to obtain these figures. Let me know if you need clarity on them. Lastly, as I worked through the data, it was apparent that 2002 data shows an increase in culvert replacements. Lets hope the trend continues.

I hope this is helpful to you; the exercise was interesting and informative for me.

Dave Price 360.902.2565

cc: John Mankowski
Sara La Borde
Paul Sekulich
Brian Benson

Editor's Comments:

WDFW = Washington Department of Fish and Wildlife
WFPA = Washington Forest Protection Association
Weyco = Weyerhaeuser
HPA = Hydraulic Project Approval
DNR = Department of Natural Resources

GOAL

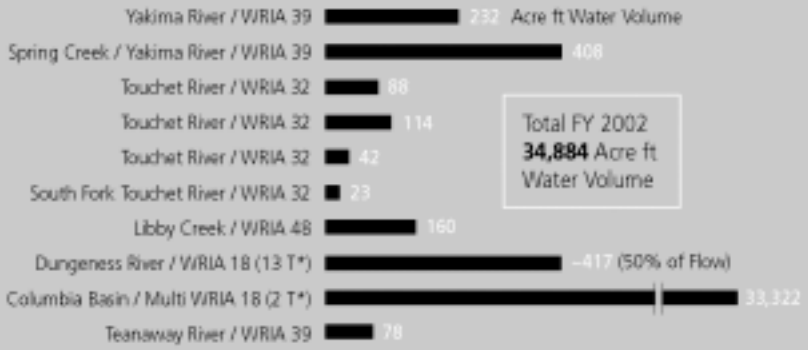
Our habitat, harvest, hatchery, and hydropower activities will benefit wild salmon.

INDICATOR

Volume of water restored to streams where water availability and flows are limiting factors.

In 2001, we restored a significant amount of water to critical basins during important times of the year for the purpose of protecting fish.

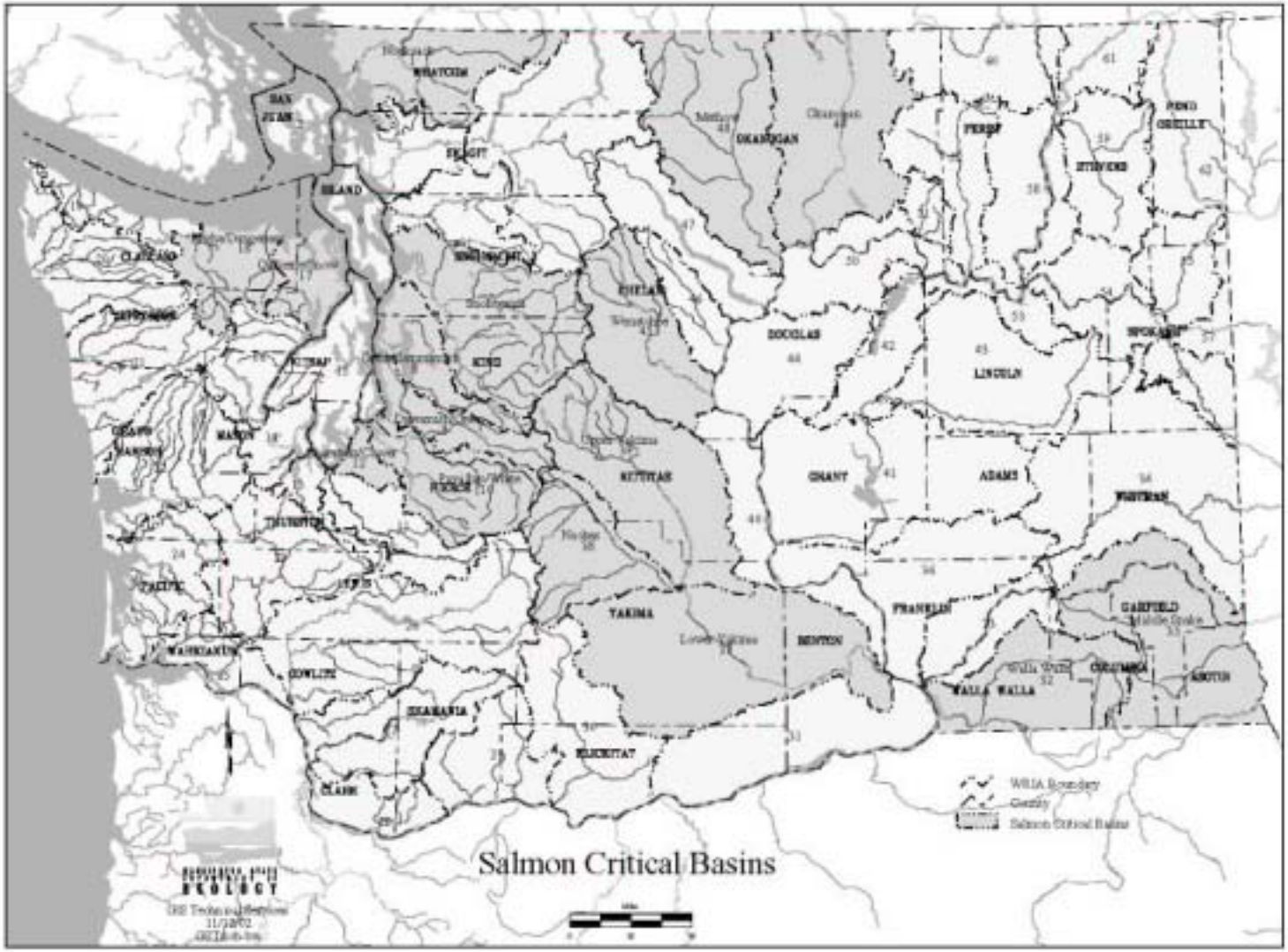
Volume of water restored to streams where water availability and flows are limiting factors



WRIA: WATER RESOURCE INVENTORY AREA. *TRANSACTIONS DROUGHT FUNDED WATER LEASES RANGING FROM JULY 1 TO OCTOBER 1, 2001.
DATA SOURCE: DEPARTMENT OF ECOLOGY

- **Restored water** includes water from actions that were taken to improve streamflows, including conservation, reuse, metering, regulating water use, enforcement, water purchases, or trust water donations; the focus is on summer low flow periods.
- Definition of streams where water availability and flows are limiting factors is from the 1999 Statewide Strategy to Recover Salmon.
- 35,000 acre feet of water is almost 11.5 billion gallons—enough to support half the population of Washington for 1 year
- Further monitoring is essential to establish the contribution of restored water to healthy watersheds and fish.
- Summer low flows can be limiting factors for fish.

Additional Data:



Data Source: Department of Ecology

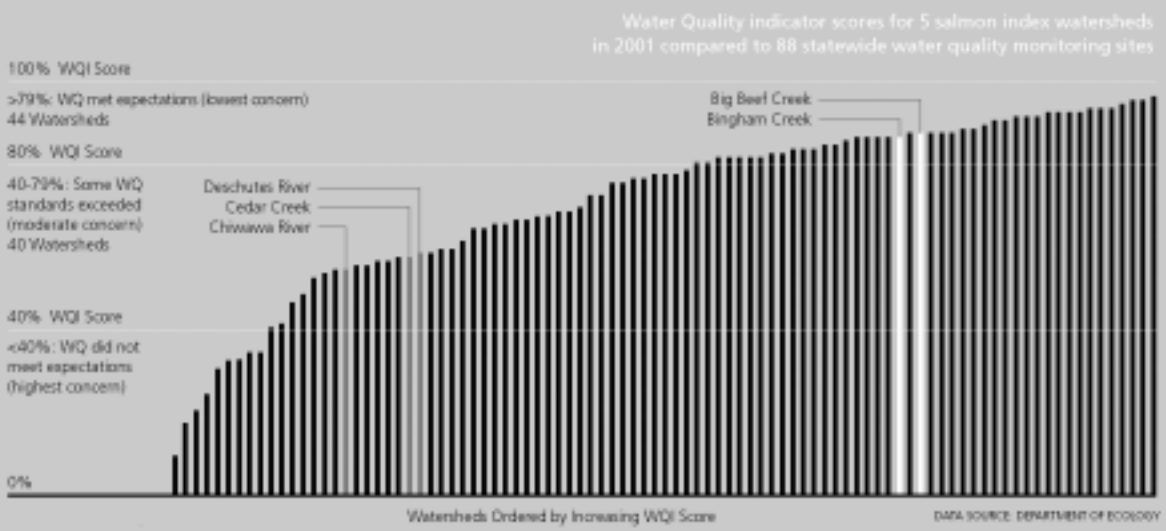
GOAL

Our habitat, harvest, hatchery, and hydropower activities will benefit wild salmon.

INDICATOR

Percentage of WRIAs with acceptable Water Quality Index readings

Water quality is good in two of the five salmon index watersheds.



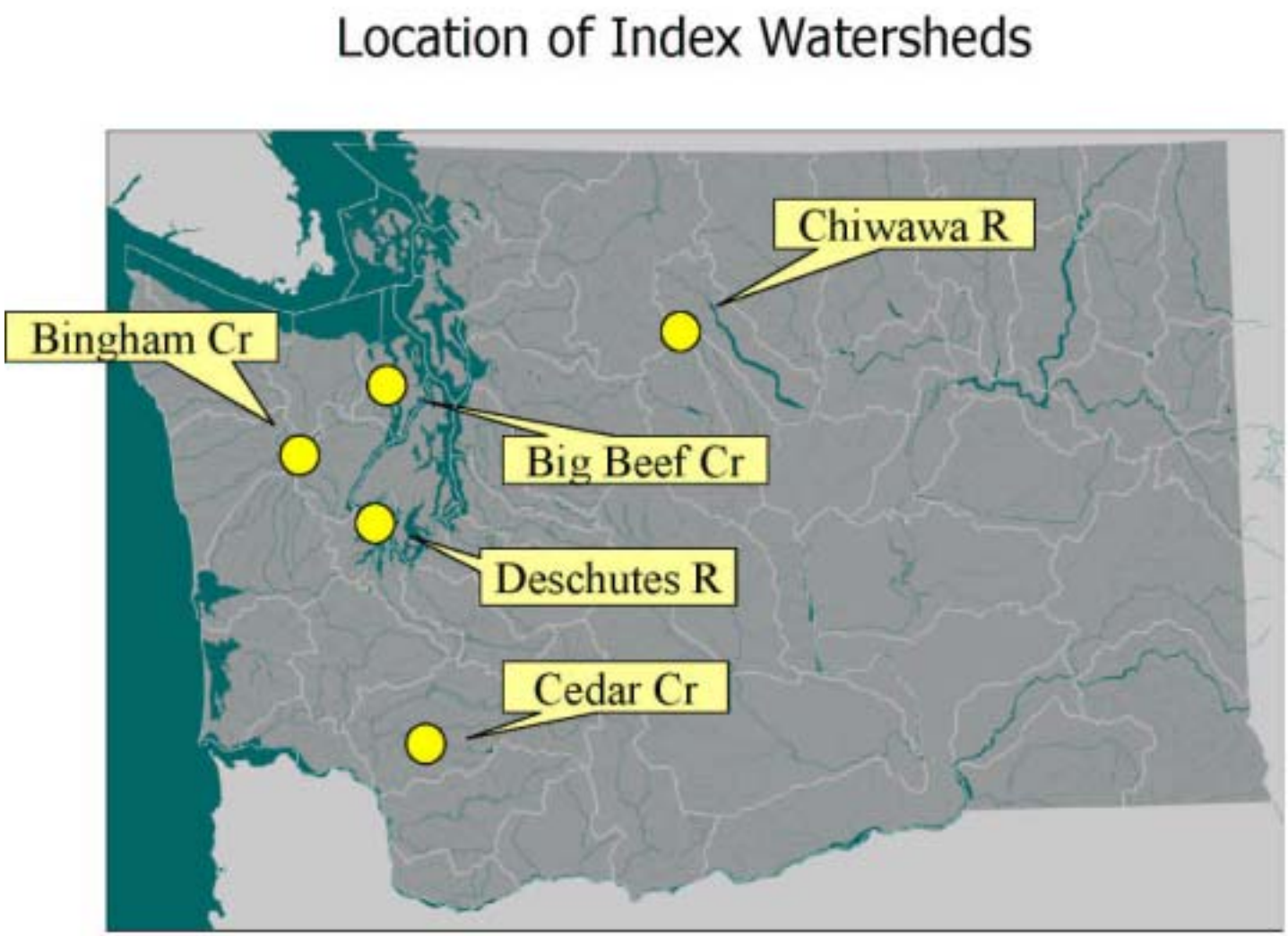
- Five index watersheds that are monitored for juvenile salmon production are also monitored for water quality in this indicator.
- **Water quality index (WQI)** is a number that aggregates water quality data at a monitoring station for temperature, pH, fecal coliform bacteria, dissolved oxygen, nutrients, and sediments over a 12 month period.

Each station produces a single, annual water quality score between 1 and 100; in general, stations scoring 80 and above meet expectations for water quality and are of lowest concern, scores 40-80 are of marginal concern, and scores below 40 are of highest concern.

- This is a long-term trend indicator that will attempt to relate water quality trends to changes in salmon productivity

- Data for Chiwawa and Deschutes do not cover the same time frame as other watersheds, so they may not be directly comparable.
- Parameters monitored include temperature, dissolved oxygen, pH, fecal coliform bacteria, total nitrogen, total phosphorus, total suspended sediment, and turbidity

Additional Data:



Data Source: Department of Ecology

GOAL

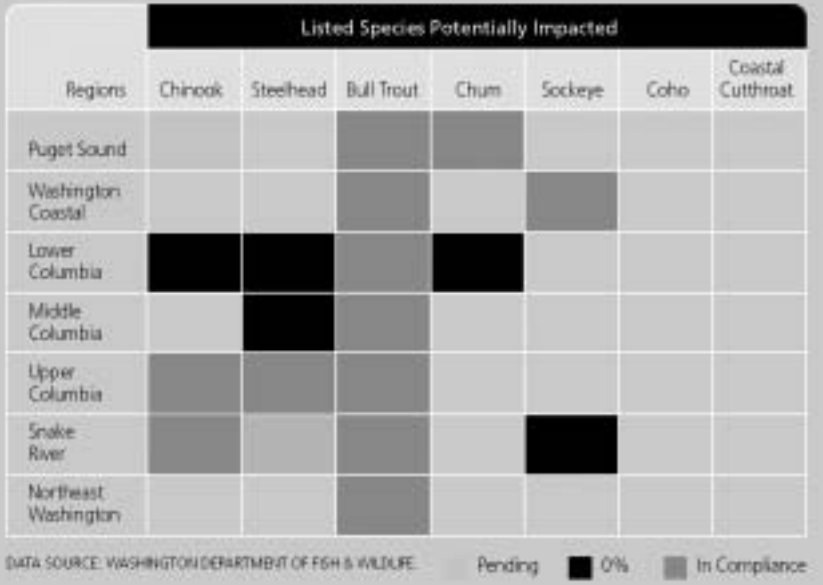
Our habitat, harvest, hatchery, and hydropower activities will benefit wild salmon.

INDICATOR

Percentage of hatchery facilities and programs operating in a way that is consistent with wild salmon recovery

Hatchery compliance with the ESA is improving, but considerable work remains.

Hatchery Program ESA Compliance Status



- Consistent with wild salmon recovery is measured by compliance with ESA.
- Pending category includes compliance products submitted to NMFS and awaiting response.
- ESA compliance is measured through approved Hatchery and Genetic Management Plans (section 4 [d]), section 7 consultations, section 6 agreements, and section 10 permits issued by NMFS/USFWS.
- Additional Columbia River programs should be submitted by Fall 2003.

Additional Data:

Regions	Listed Species Potentially Impacted						
	Chinook	Steelhead	Bull Trout	Chum	Sockeye	Coho	Coastal Cutthroat
Puget Sound	**80**		**80**	**6**			
Coast			**60**		**0**		
Lower Columbia	**66**	**66**	**66**	**2**			
Middle Columbia		**3**	**3**				
Upper Columbia	**6**	**3**	**10**				
Snake	**2**	**4**	**7**		**7**		
Northeast			**25**				

0%
pending
100%

Data Source: Washington Department of Fish and Wildlife

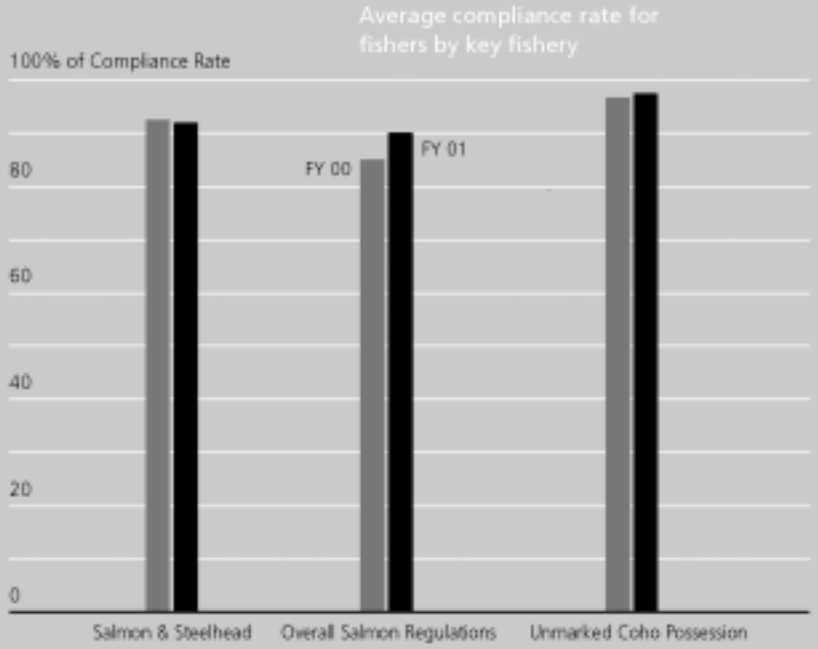
GOAL

Our habitat, harvest, hatchery, and hydropower activities will benefit wild salmon.

INDICATOR

Average compliance rate for fishers by key fishery

Fishers are, for the most part, complying with fishing regulations.



DATA SOURCE: WASHINGTON DEPARTMENT OF FISH AND WILDLIFE.

- Salmon & steelhead compliance based on 2506 arrests & written warnings during 35,548 contacts in FY00; 3,570 arrests and written warnings during 49,603 contacts in FY01.

Additional Data:

Enforcement of Coastal Selective Salmon Fishery
1999-2001 Biennium

	FY 2000					FY 2001				
	Ilwaco	Westport	LaPush	Neah Bay	Total	Ilwaco	Westport	LaPush	Neah Bay	Total
Contacts	1,115	569	259	888	2,831	1,077	560	364	866	2,867
Salmon Regulations										
- Violations	119	91	24	178	412	137	51	10	82	280
- Compliance (a)	89.3%	84.0%	90.7%	80.0%	85.4	87.3%	90.9%	97.3%	90.5%	90.2%
Possession of Unmarked Coho										
- Violations	8	3	5	41	57	13	11	4	10	38
- Compliance (b)	99.3%	99.5%	98.1%	95.4%	98.0%	98.8%	98.0%	98.9%	98.8%	98.7%

Data Source: Washington Department of Fish and Wildlife

(a) "Salmon regulations compliance" is salmon violations (license, gear, possession, season, area) divided by contacts.
(b) "Possession of unmaked coho compliance" is unmarked coho violations divided by contacts.

Comments:

- ü Violations are total of citations and written warnings
- ü Statistics are from WDFW Enforcement Marine Division only

GOAL

Citizens and salmon recovery partners are engaged.

INDICATOR

Number of people involved in volunteer watershed stewardship, salmon protection or restoration activities

Volunteers working on watershed stewardship and salmon recovery projects for state agencies donated time equivalent to more than 36 state employees in 1999.

State Agency	Organizations	Category	People	Hours
WSU Coop. Extension	Individuals	CP	9777	41202
State Parks	Doug Mackey	ARV	1	200
	Nooksack Salmon Enhancement Group,	CP	23	46
	UW-Pack Forest	ARV	1	120
WDFW	Reg. Fisheries Enhancement Groups	ARV ARV	500	10375
DNR	Individuals	ARV	847	17762
Ecology	Individuals,	ARV, CP	141	1789
	Wetland Function Assesment	ARV	36	3000
PSAT	People for Puget Sound,	CP	23	241
	Maxwelton Salmon Adventure,	CP	5	35
	Hood Canal School,	CP	14	40
	Seabeck Salmon Team	CP	34	272

DATA SOURCES: WASHINGTON DEPARTMENT OF FISH AND WILDLIFE, DEPARTMENT OF NATURAL RESOURCES, DEPARTMENT OF ECOLOGY, PUGET SOUND ACTION TEAM, WASHINGTON STATE UNIVERSITY COOPERATIVE EXTENSION PROGRAM

- This graph seriously undercounts the volunteer time donated by citizens of Washington. Many volunteers with county programs, fish clubs, watershed councils, stream teams, school districts, and others are not included.

Agency Registered Volunteers (ARV)

ARVs are those volunteers registered specifically with a state agency, requiring: ▸ Worker safety training in compliance with Labor and Industries worker safety standards. ▸ Medical Aid insurance payments (by the sponsoring state agency) for each registered volunteer. ▸ Documentation and tracking of volunteer workes activities.

Community Participant Volunteers (CPV)

CPVs include salmon-related volunteer activities conducted by, for or on behalf of organization partners directly involved with state agencies working on salmon recovery.

Additional Data:

Summary of Volunteer Efforts – Preliminary Data
July 1, 2000 to June 30, 2001

	# of Volunteers	# of Volunteer Hours
Puget Sound Action Team	498	7414
Department of Natural Resources	1045	11100
Washington Department of Fish and Wildlife		36550
Washington State University Cooperative Extension		20180
Department of Ecology	42	432
Parks and Recreation Commission		53

Data Source: All of the above listed agencies

Comments:

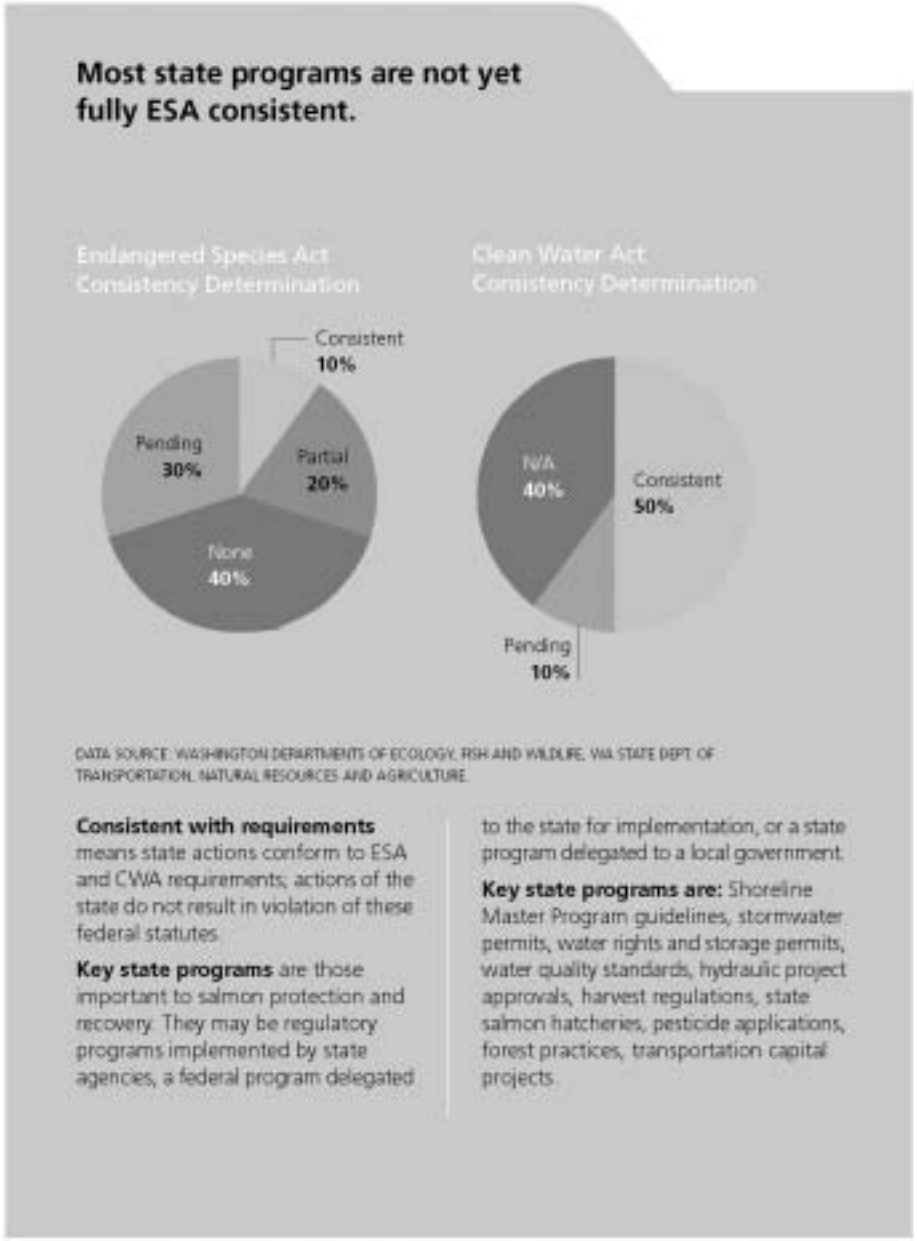
- Total = 75729 hours
- Equals over 37 full time employees

GOAL

We will meet Endangered Species Act and Clean Water requirements.

INDICATOR

Percentage of key state programs consistent with ESA and CWA requirements.



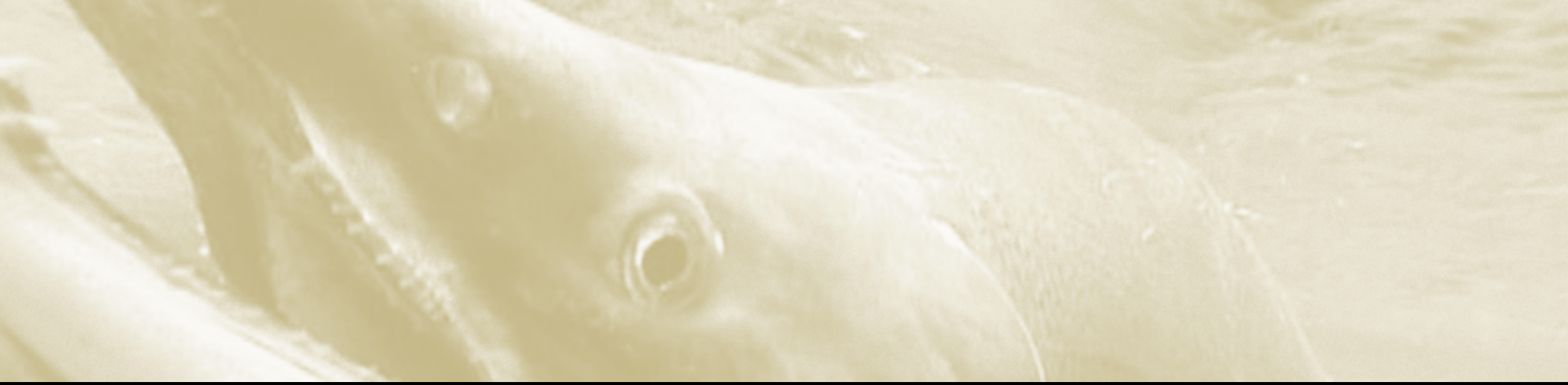
Additional Data:

Selected Program	Administering Agency	Consistency Determination		Comments on Scope and Status
		ESA	CWA	
Shoreline Master Program Guidelines	Ecology	No	NA	Guidelines adopted by Ecology were litigated. Settlement agreement on the Guidelines is in final stage. New draft rules will be filed in Fall 2002. OCRM is conducting a study to document conditions of shoreline and establish a "baseline" to use for Section 7 consultation.
Stormwater Permits (Municipal, Industrial, Construction, Transportation)	Ecology	No	Yes	The various types of state stormwater permits are part of the federally delegated NPDES program. The Western WA Stormwater Manual has been supported as consistent with the CWA. State stormwater permit programs have had no consistency determination under ESA.
Water Rights and Storage Permits	Ecology	No	NA	New water rights subject to instream flow needs for fish. Transfers also subject to effect on flows for fish. May not seek formal ESA consistency determinations for water rights. New storage projects subject to federal permits and Section 7.
Water Quality Standards	Ecology	Pending adoption of standards	Yes	Proposed standards for temperature and dissolved oxygen will be filed in October 2002. Section 7 consultation will be initiated by EPA once the standards are adopted in rules (scheduled for Spring 2003).
Hydraulic Project Approvals	Fish and Wildlife	No	NA	At request of NMFS and USFWS, the HPA MOA is no longer in effect. However, WDFW is still meeting the intent of the MOA by notifying NMFS and USFWS of high-risk HPA applications for their review and comment.
Harvest Regulations	Fish and Wildlife	Partial and Others Pending	NA	3 of 5 FMEPs have been submitted for approval (Middle and Lower Columbia tributaries and Snake River and its tributaries). No FMEPs have been approved yet by NMFS. Additionally, harvest regulations have been covered by Section 7 consultations (Columbia River mainstem), Section 10 permits (upper Columbia and tributary recreational fisheries), Section 4(d) Joint Resource Management Plans (Puget Sound salmon fisheries), and blanket 4(d) take authorizations for bull trout.

Data Source: Governor's Salmon Recovery Office

Selected Program	Administering Agency	Consistency Determination		Comments on Scope and Status
		ESA	CWA	
State Hatcheries	Fish And Wildlife	Partial and Others Pending	Yes	Draft HGMPs have been submitted for 98 Puget Sound and 60 Columbia River hatcheries. Six Hood Canal summer chum HGMPs have been approved by NMFS. Additionally, some hatchery operations are covered by Section 10 permits (Upper Columbia spring Chinook and steelhead) and by Section 7 consultations (Columbia/Snake Basin). Of state fish culture facilities required to have NPDES permits, 75 sites have permits, and 2 sites have applications pending. There are additional facilities where it is unclear if NPDES permits are required. WDFW is not currently pursuing permits for these sites.
Pesticide Application	Agriculture	Yes, in Progress	Yes, in Progress	Program on track for consistency with ESA and CWA as recognized through a negotiated agreement signed by NMFS, USFWS and EPA in September 2001. Presently implementing strategy in agreement to achieve compliance.
Forest Practices	Natural Resources	Pending	Pending	Initial recognitions of ESA and CWA consistency not yet formalized. Continuing work to activate NMFS 4(d) rule Limit 13. Developing HCP for long term ESA and CWA recognition by NMFS, USFWS and EPA. Scheduled for completion by end of FY 2005.
Transportation Capital Projects	Transportation	Yes	Yes	ESA Section 7 consultations conducted on all capital projects with federal nexus. Developed *Maintenance Manual for Water Quality and Habitat Protection* for 4(d) rule compliance. Obtain NPDES permits for construction activities for projects above threshold. In compliance with Phase 1 NPDES municipal stormwater permit and participating in re-issuance of Phase 1 permit. Revising *Highway Runoff Manual* to be consistent with Ecology's Stormwater Management Manual for Western Washington.

Data Source: Governor's Salmon Recovery Office



Printed on Recycled Paper