




State of Washington
Governor's
Salmon Recovery
Office

2002 State of Salmon Background Data Report

Part Three

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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

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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*.

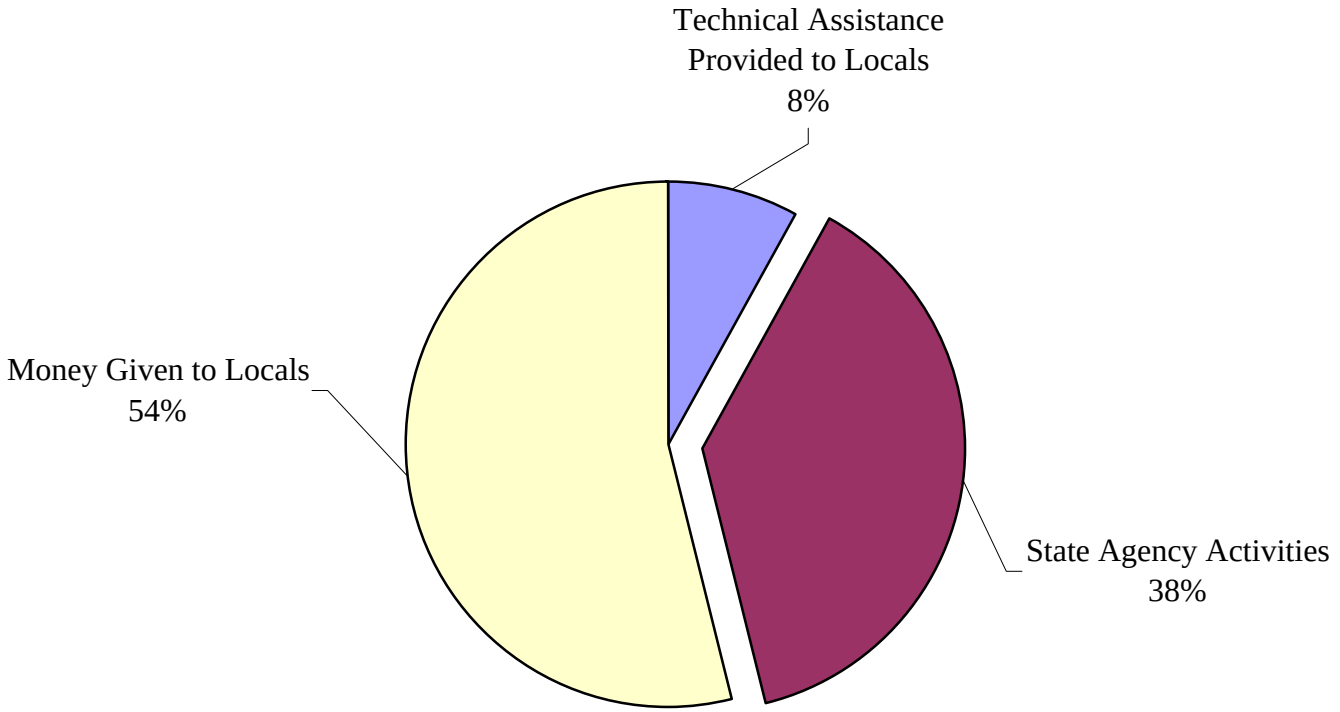
This document is Part Three of the 2002 State of Salmon Report and contains detailed information from these management tools. Here you will find reports on accomplishments from the 1999-2001 Action Plan; expected actions for the 2001-2003 Action Plan, as adjusted to reflect changes due to the 2002 supplemental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

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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.

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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.

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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.

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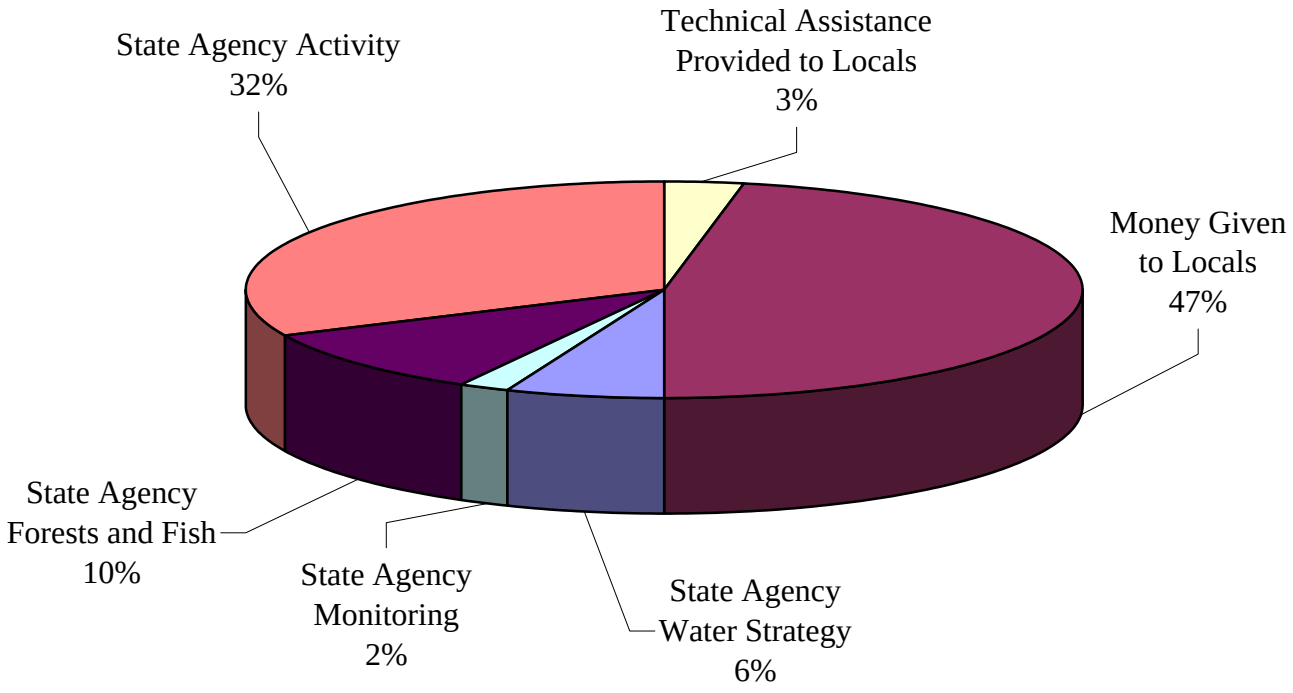
1999-01 Biennium Work Accomplished

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

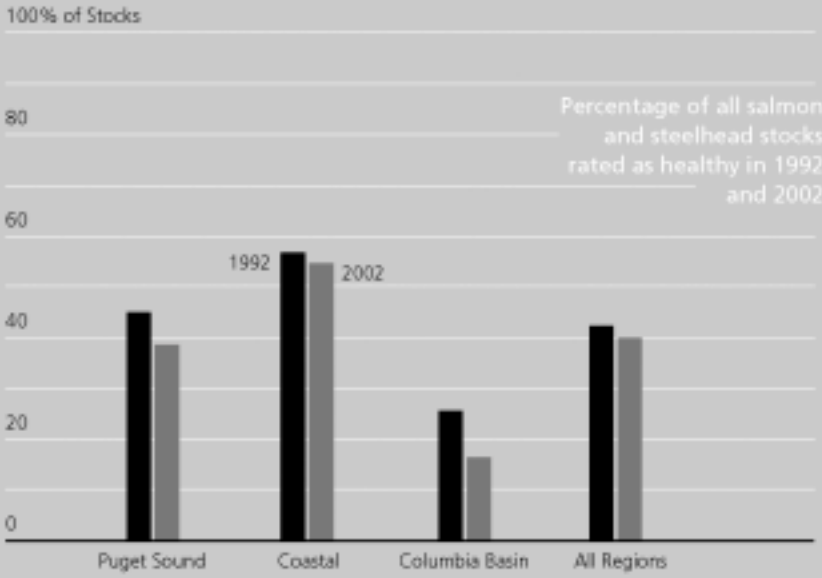
GOAL

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.

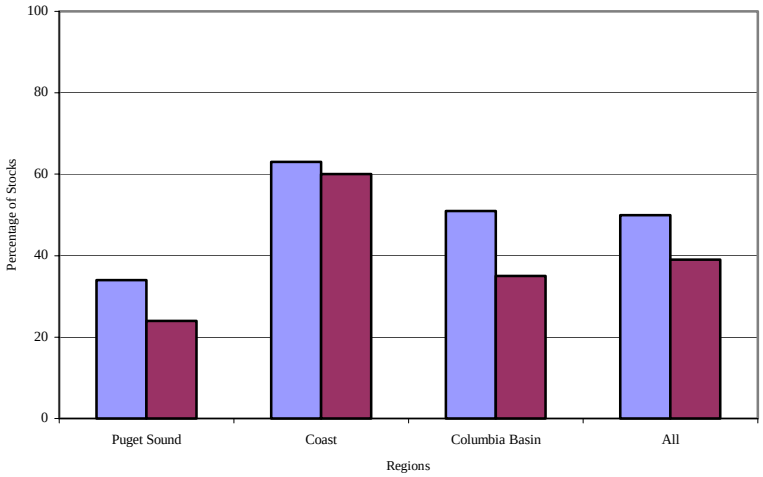


DATA SOURCE: WASHINGTON DEPARTMENT OF FISH AND WILDLIFE, SALMON AND STEELHEAD INVENTORY (SaSI).

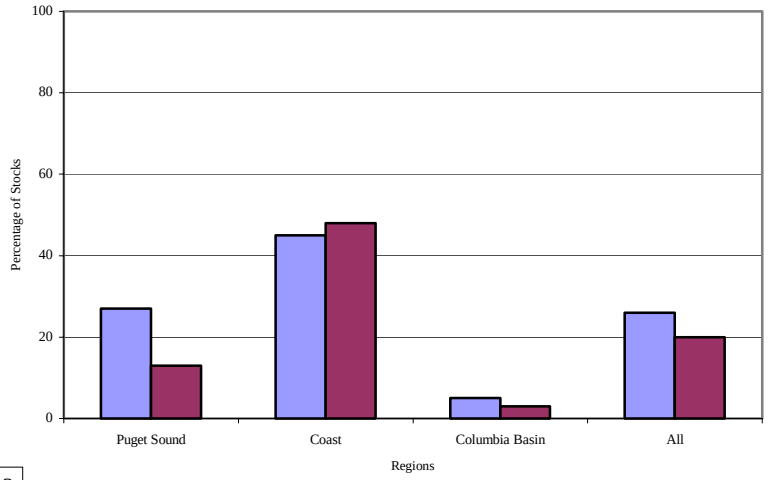
- **Healthy stocks** are defined in SaSI as those currently experiencing stable escapement, survival, and production trends and not displaying a pattern of chronically low abundance.
- A stock may be considered healthy by absence of declining trends, but still may not be considered healthy by ESA or 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:

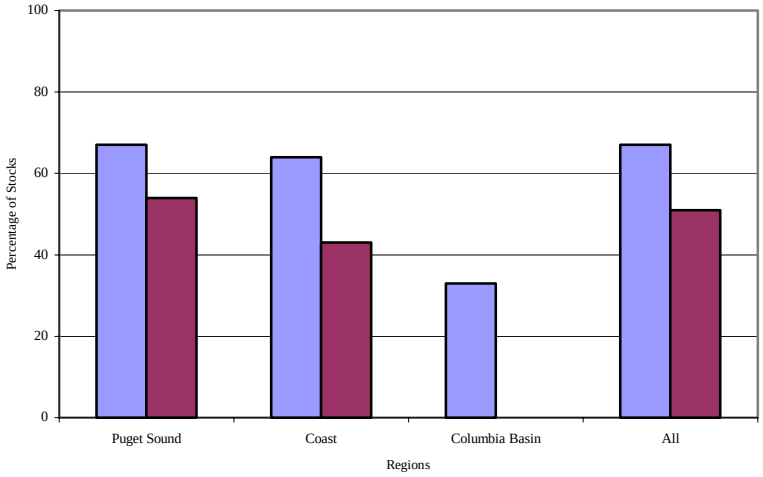
Percentage of Chinook Stocks Rated as Healthy in 1992 and 2002 (draft)



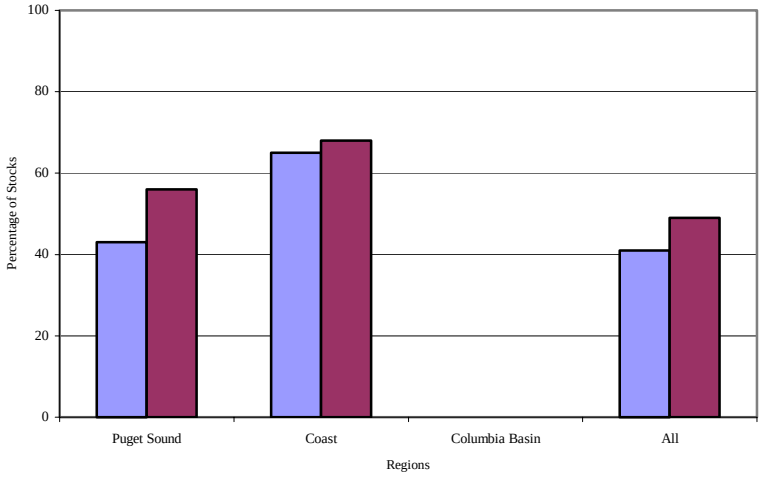
Percentage of Steelhead Stocks Rated as Healthy in 1992 and 2002 (draft)



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



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



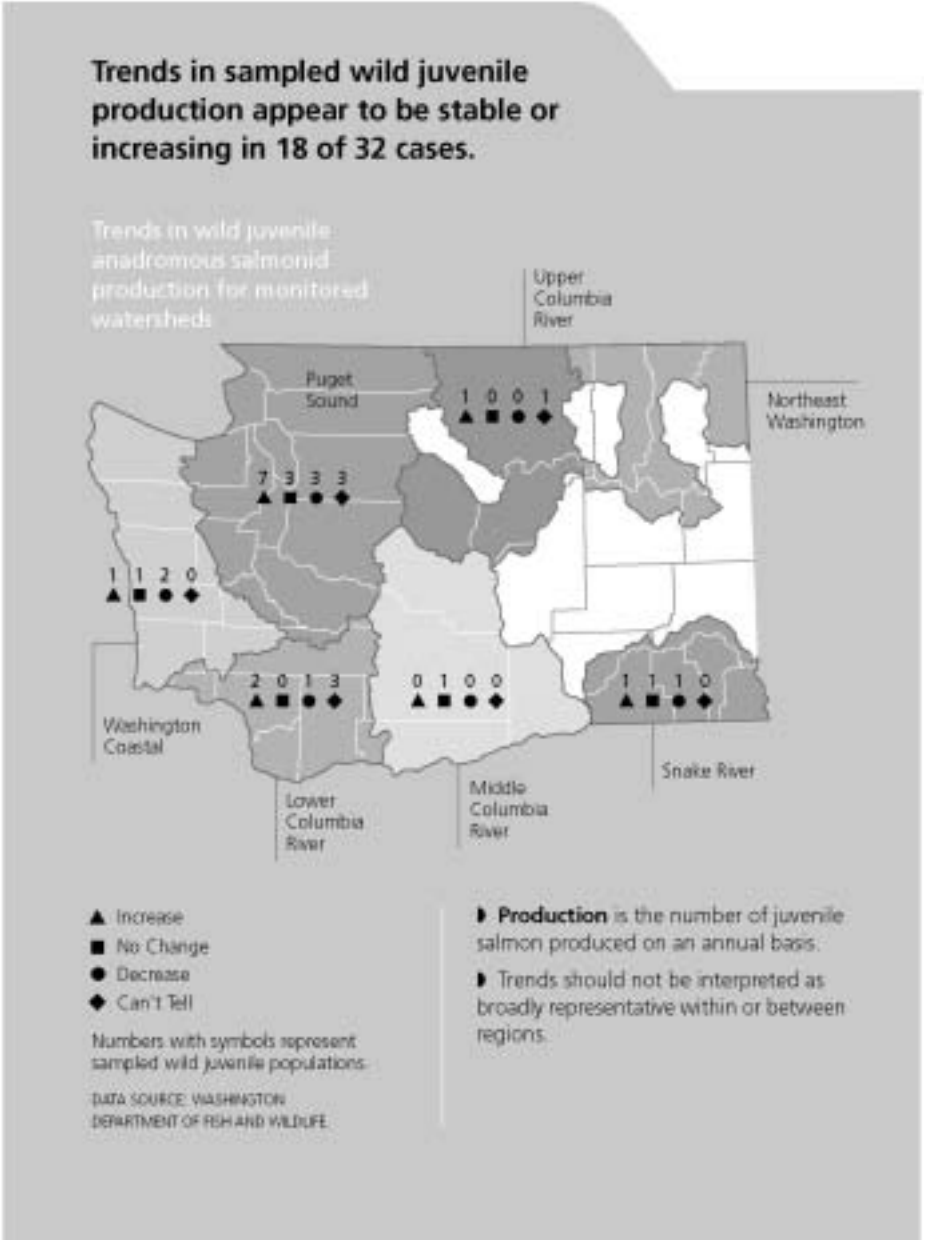
Data Source: Washington Department of Fish and Wildlife

GOAL

Wild salmon populations will be productive and diverse.

INDICATOR

Trends in wild juvenile anadromous salmon production for monitored watersheds.



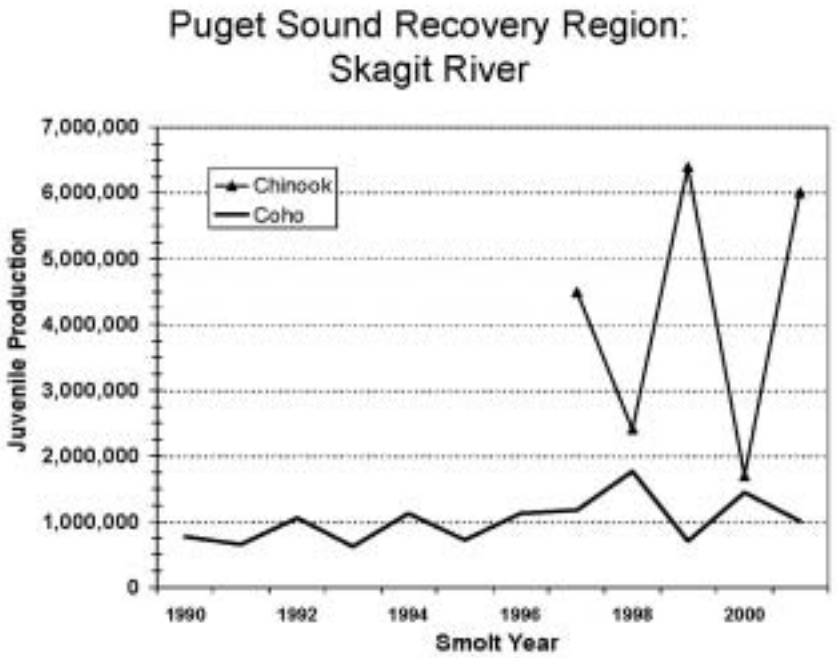
Additional Data:

	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

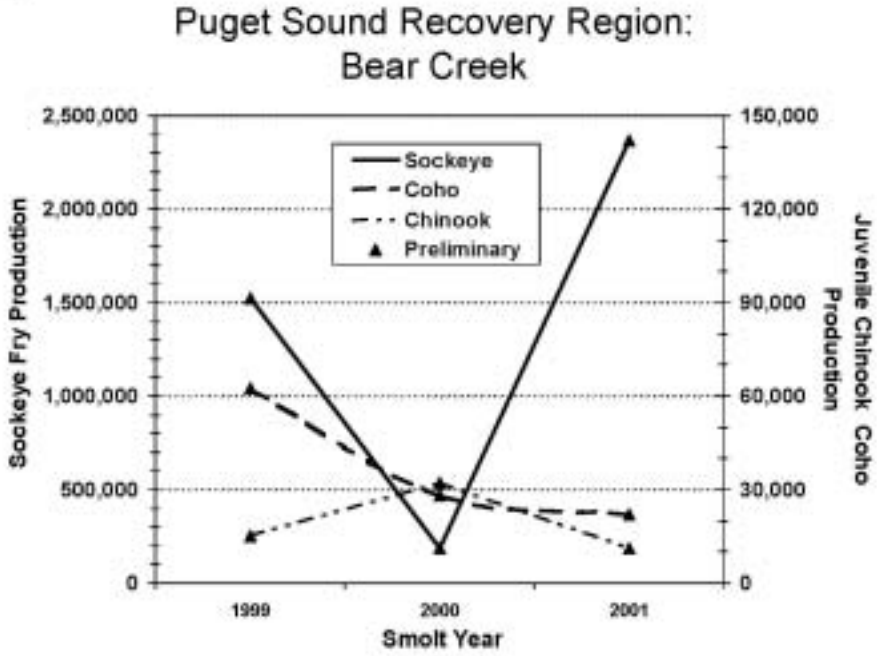
Data Source: Washington Department of Fish and Wildlife

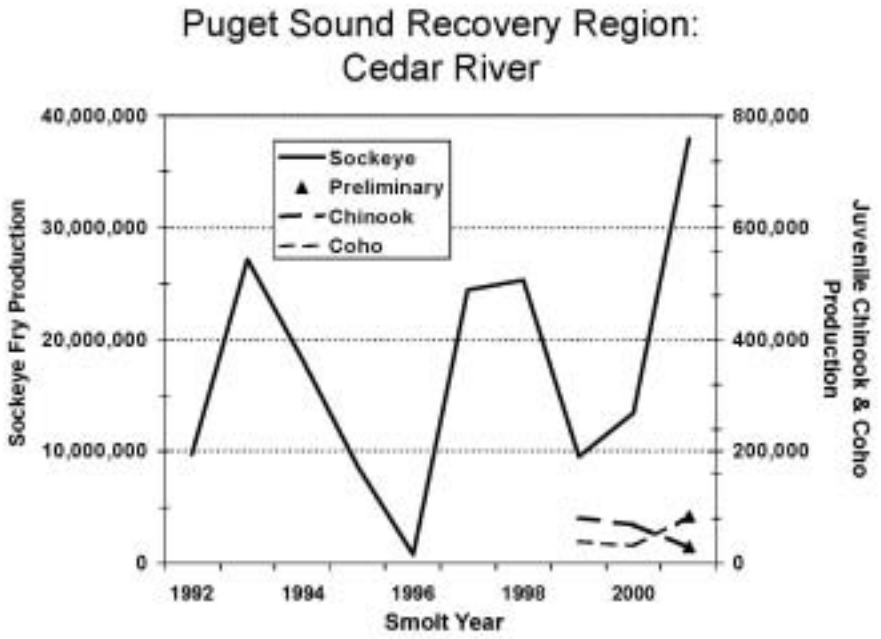
Comments:

- 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.

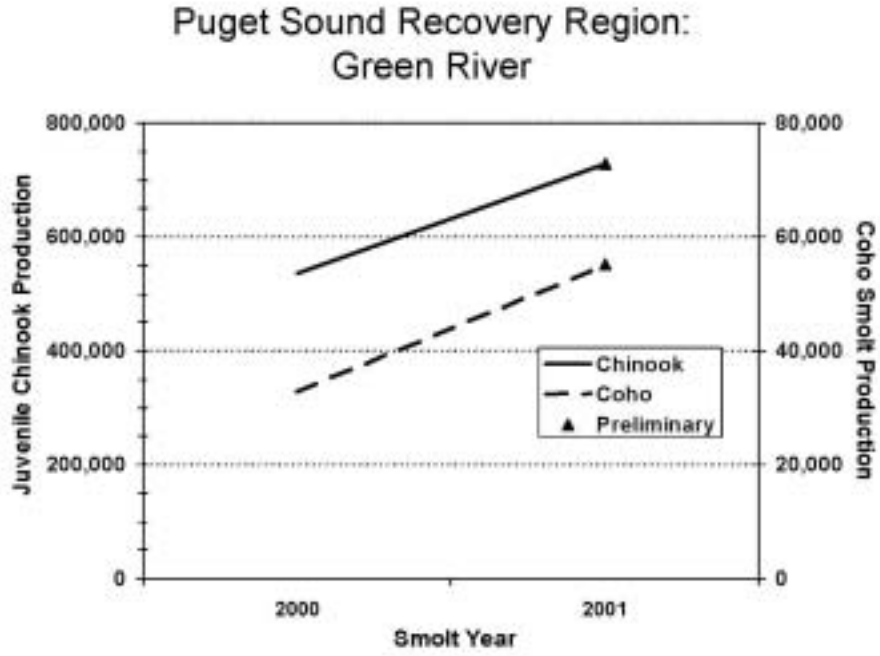


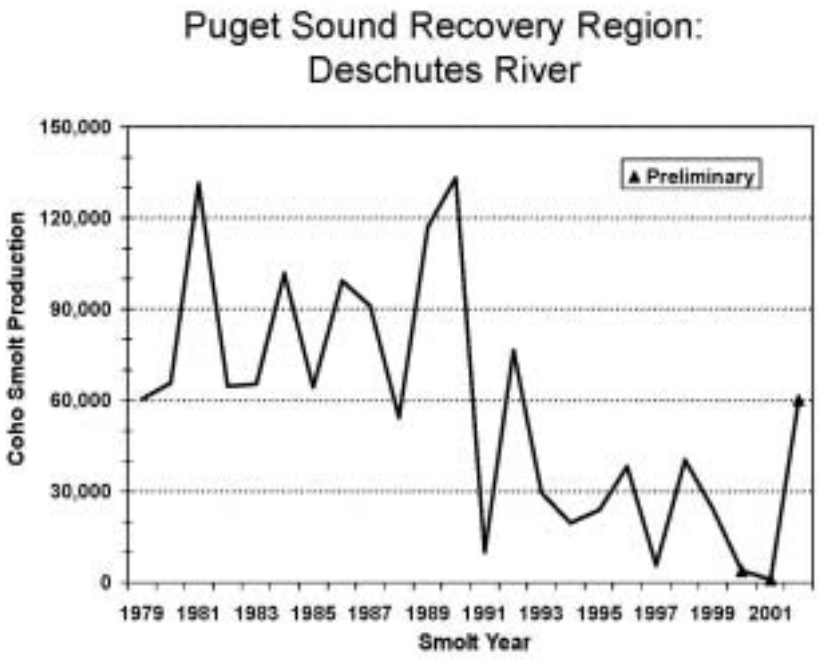
Data Sources: Washington Department of Fish and Wildlife



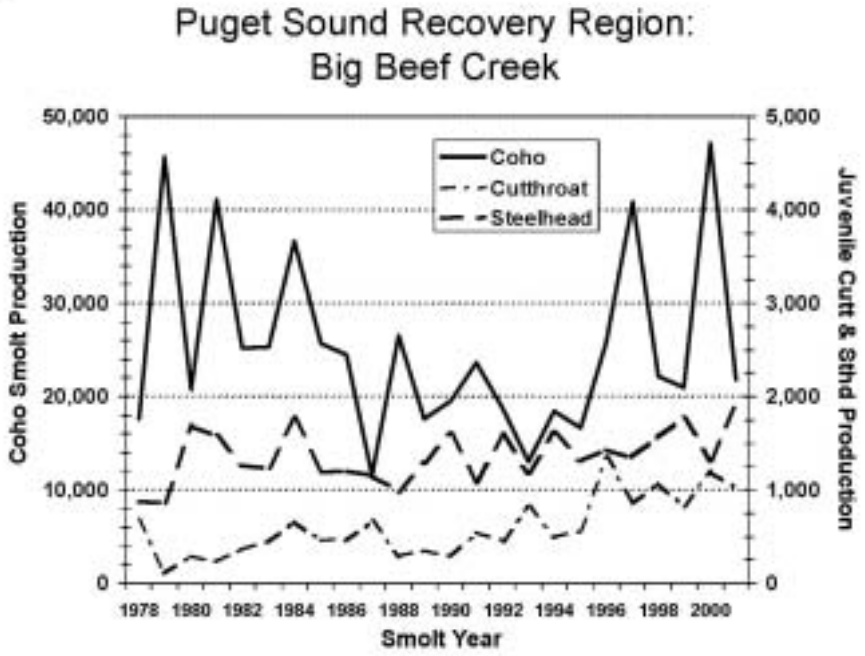


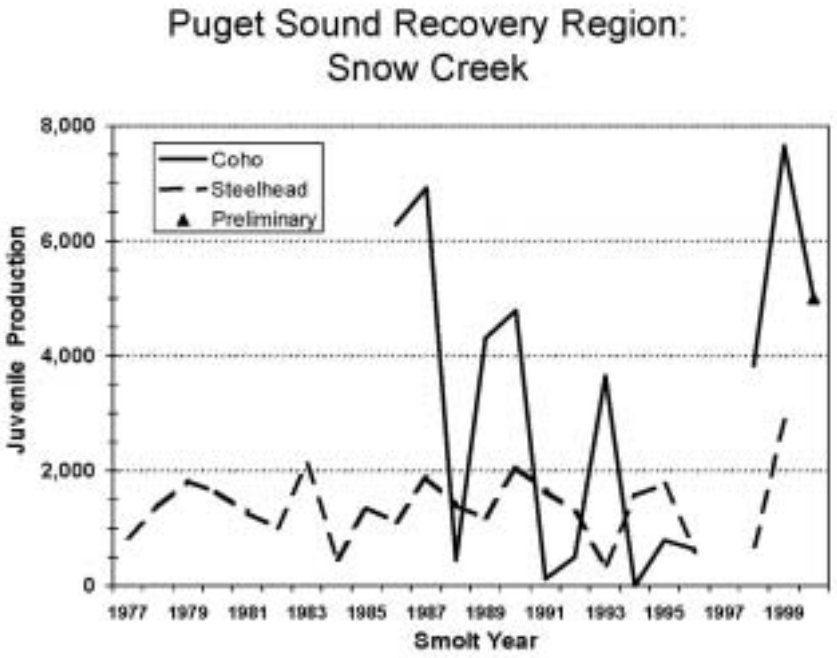
Data Sources: Washington Department of Fish and Wildlife



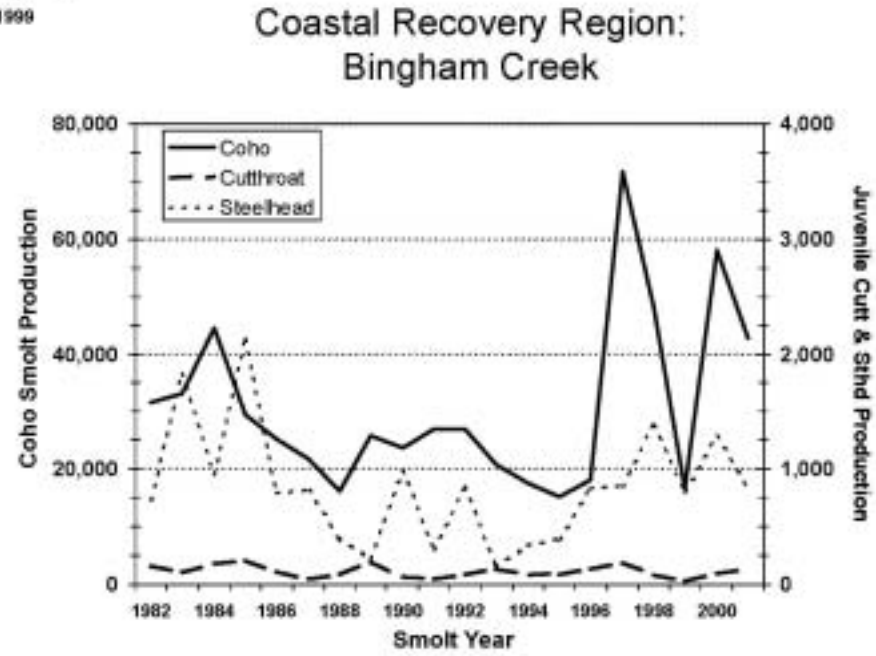


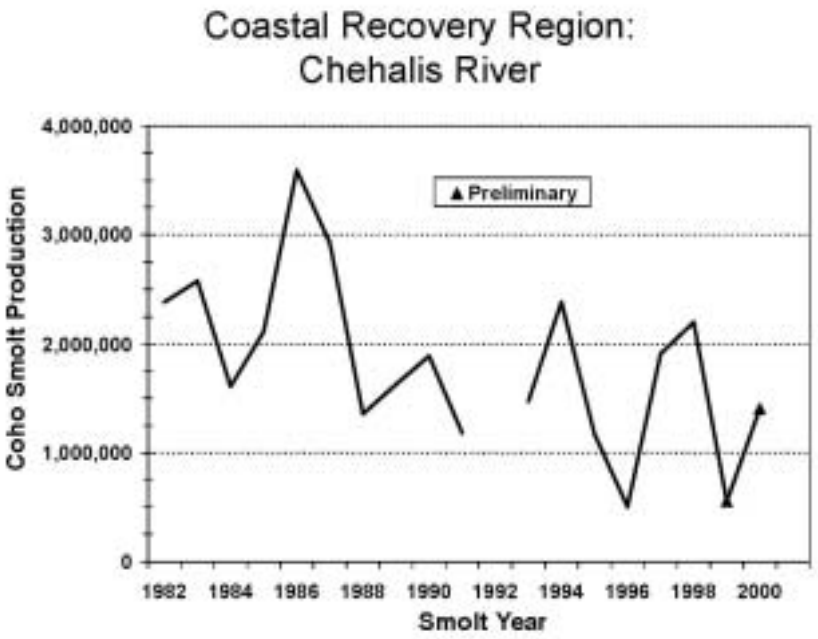
Data Sources: Washington Department of Fish and Wildlife



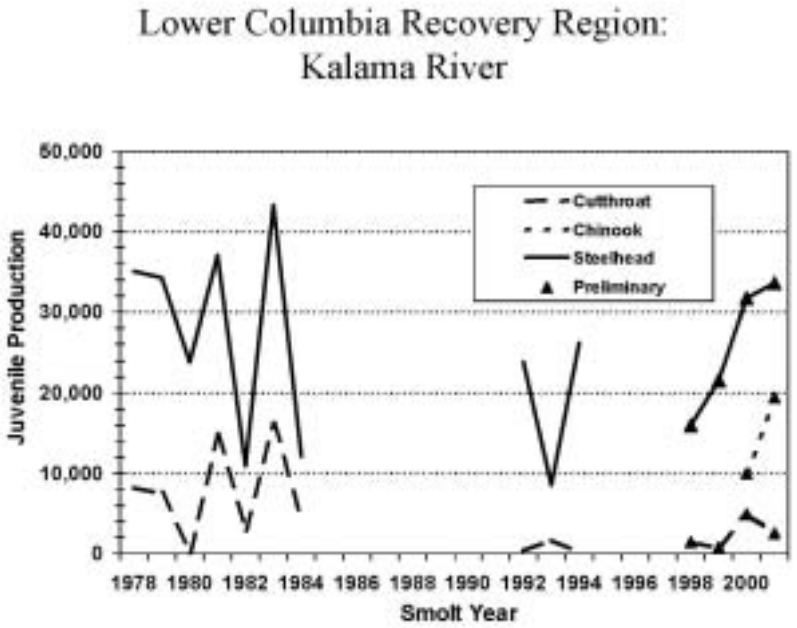


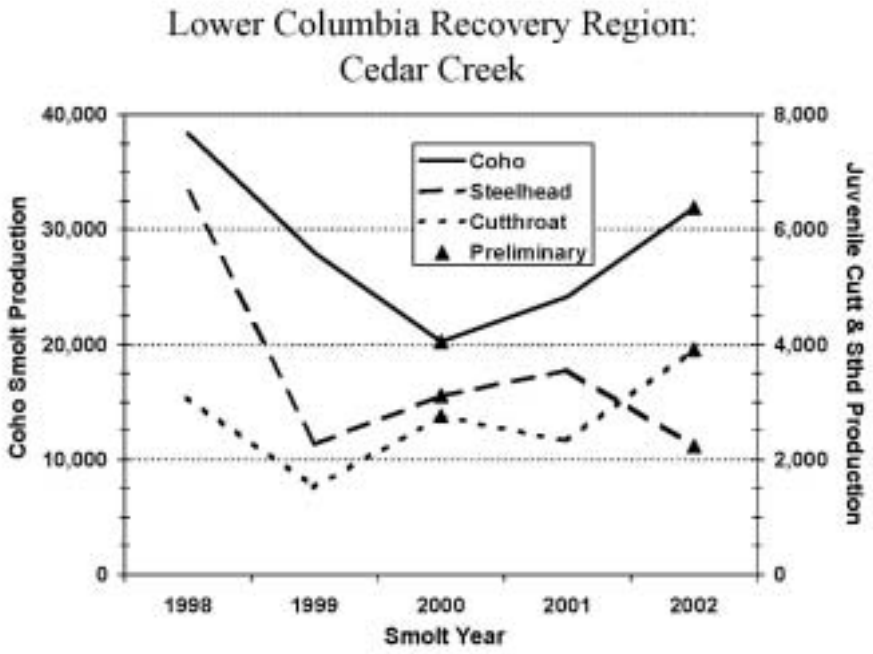
Data Sources: Washington Department of Fish and Wildlife



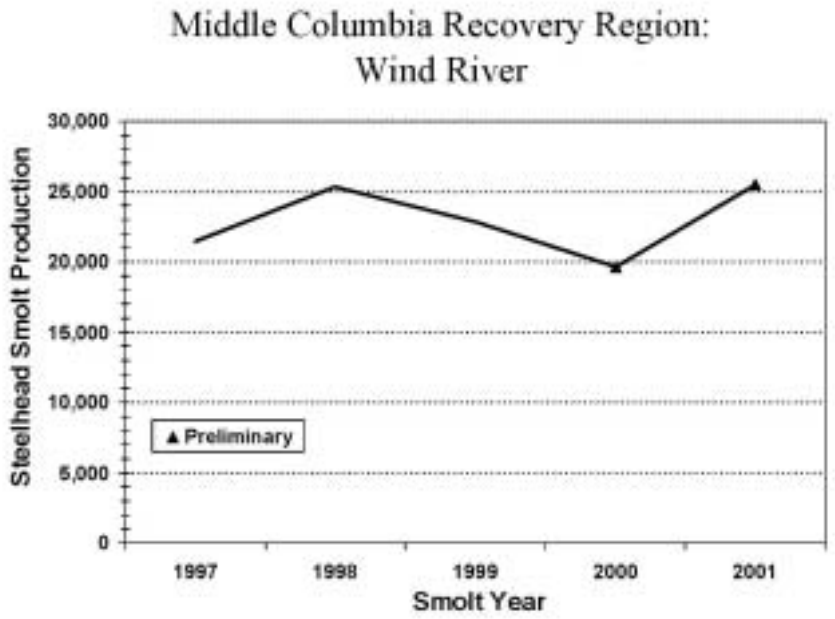


Data Sources: Washington Department of Fish and Wildlife

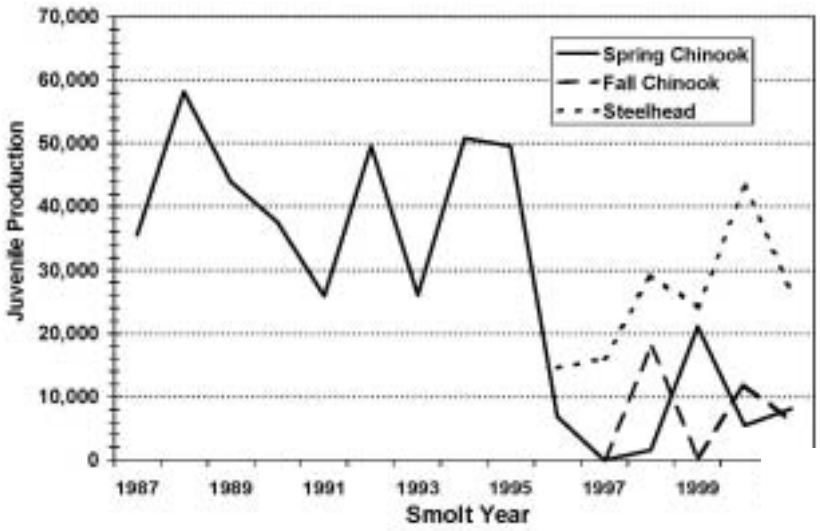




Data Sources: Washington Department of Fish and Wildlife

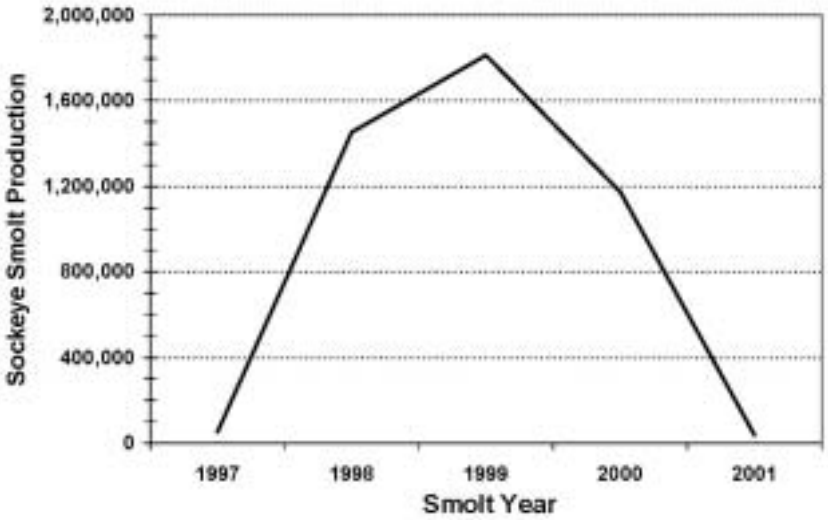


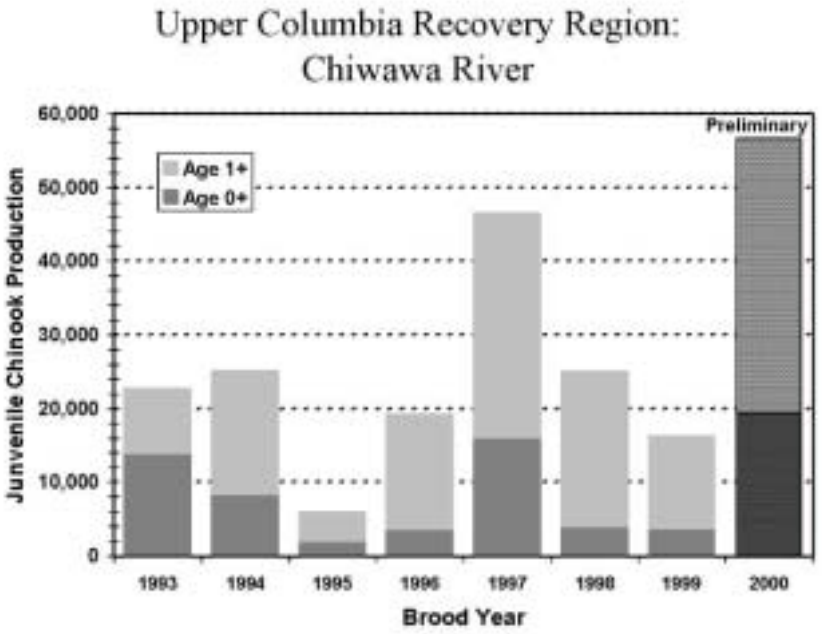
Snake River Recovery Region:
Tucannon River



Data Sources: Washington Department of Fish and Wildlife

Upper Columbia Recovery Region:
Wenatchee River





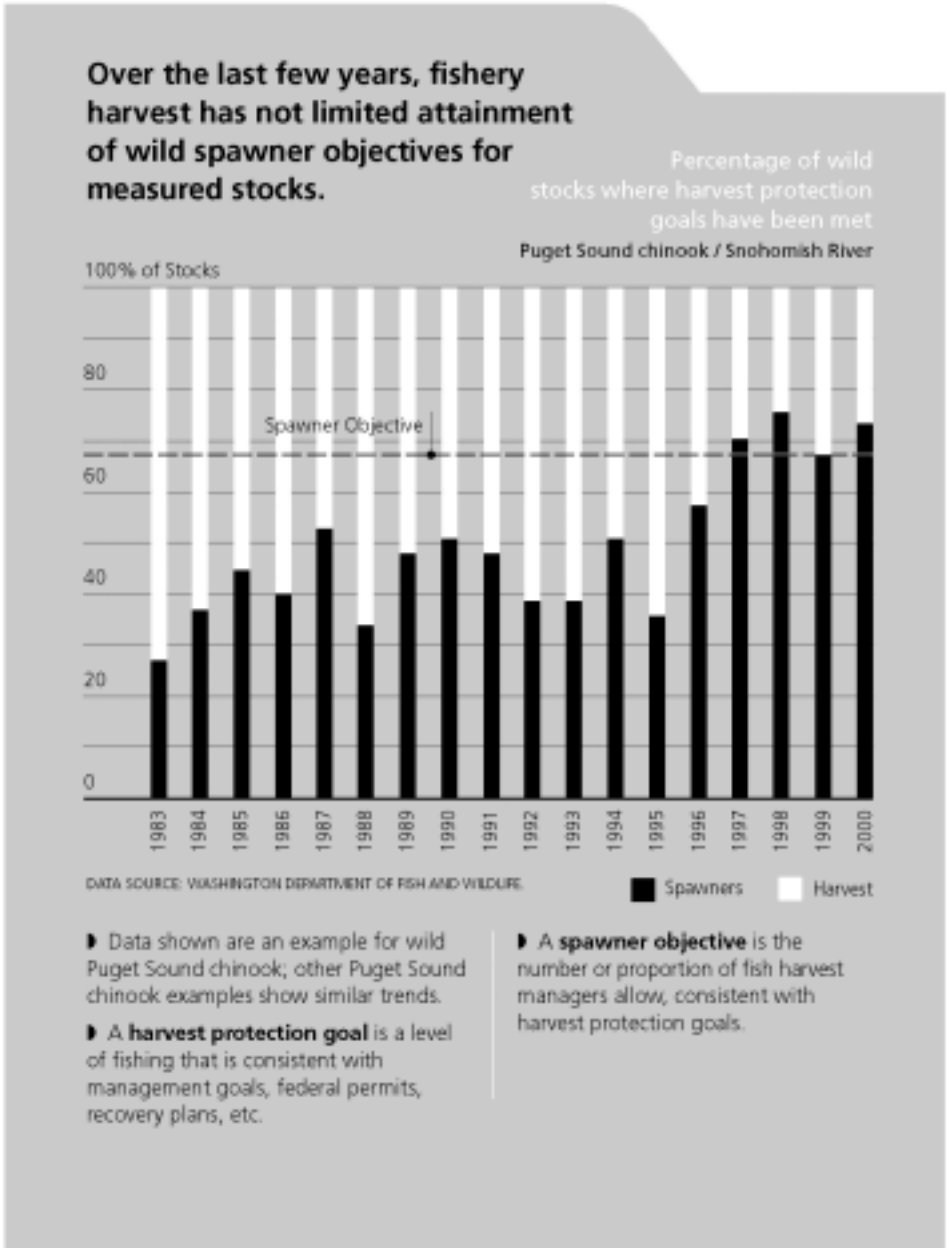
Data Source: Washington Department of Fish and Wildlife

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

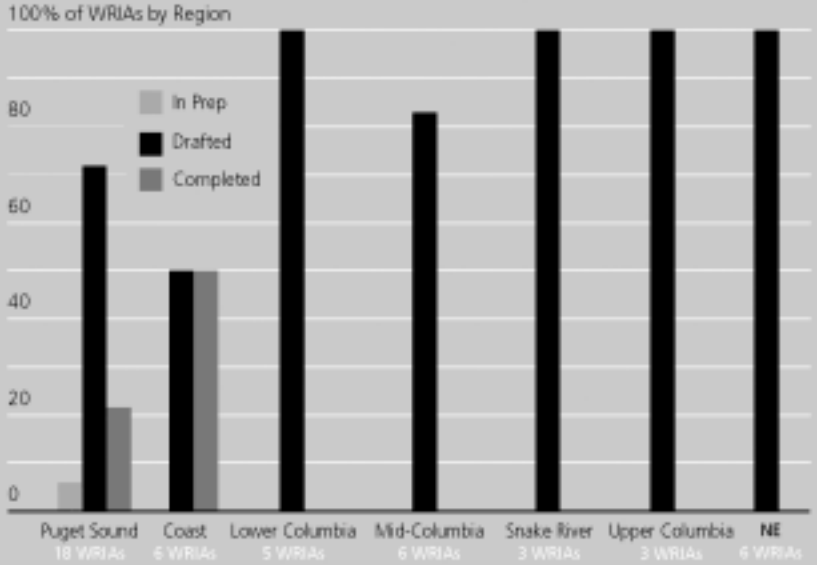
We have coordinated, science-based salmon recovery efforts.

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:

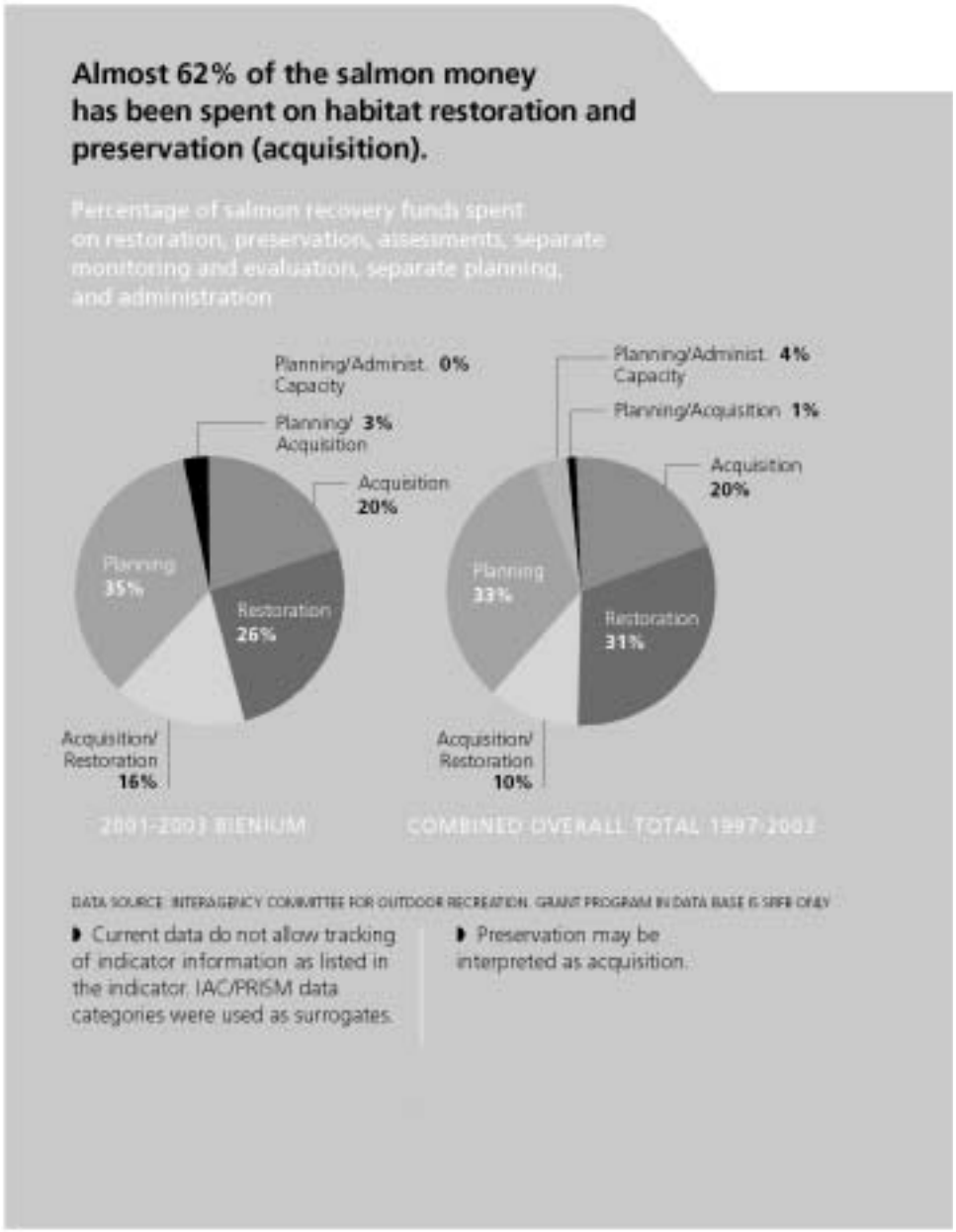
- Two expressions of the indicator were chosen to track: The number of WRIAs with baseline assessments completed; and the status of Lead Entity strategies for habitat protection and restoration projects.

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

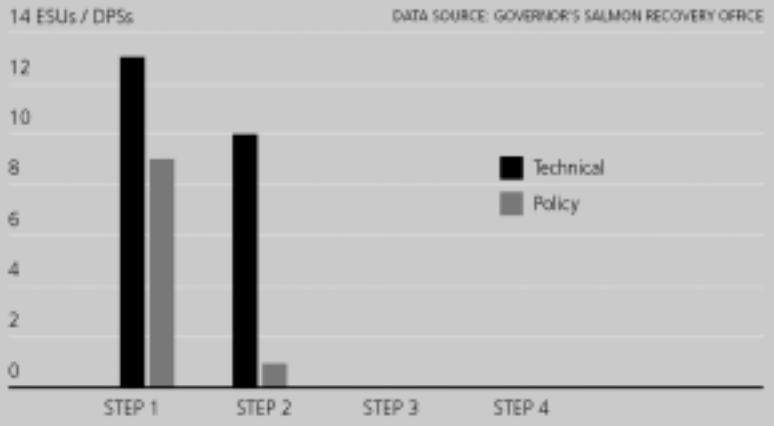
We have coordinated, science-based salmon recovery efforts.

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)

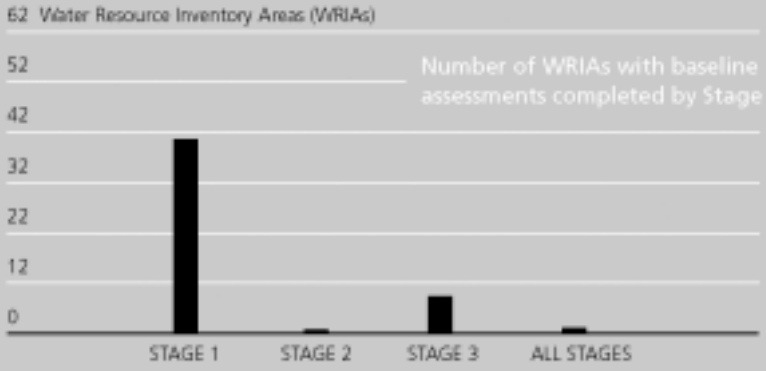
GOAL

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.

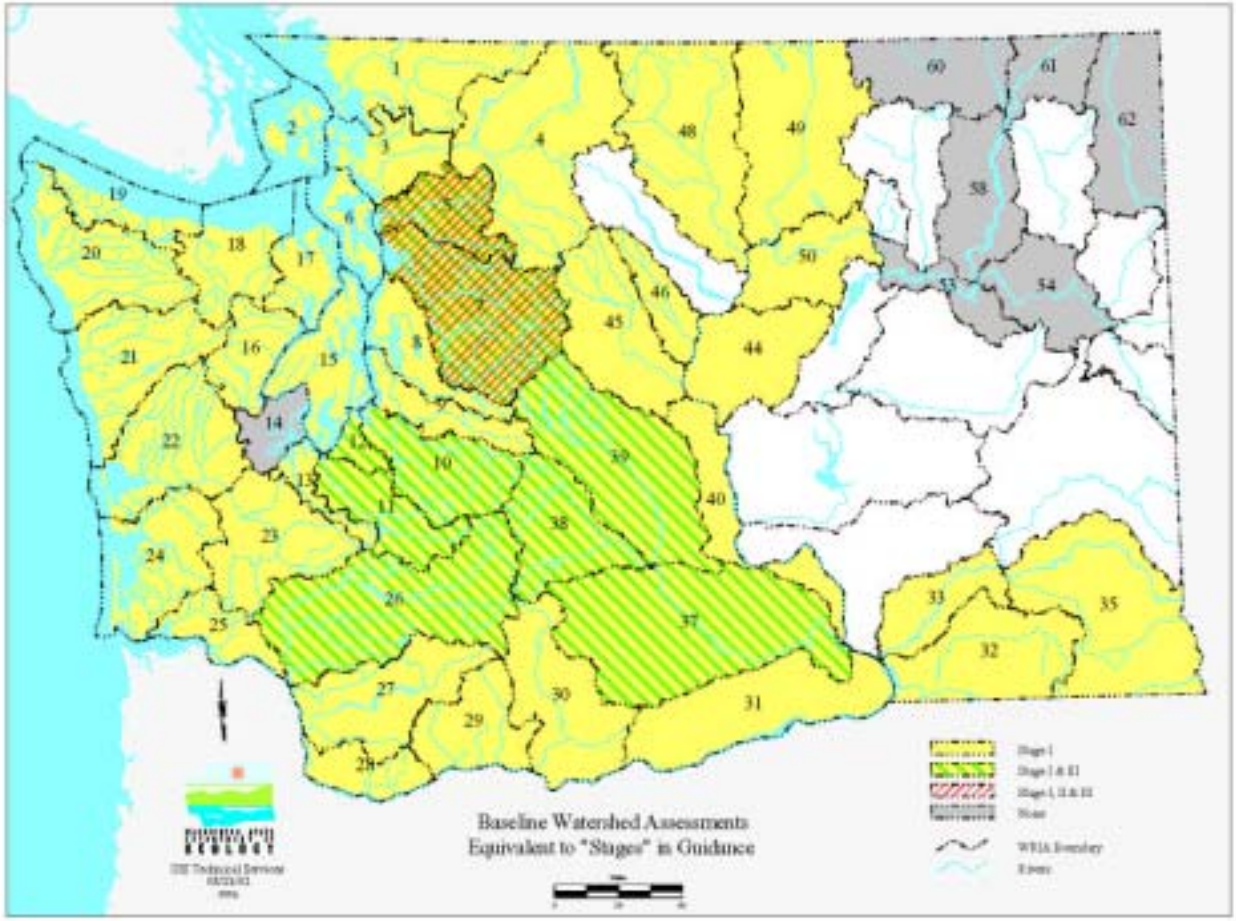
Additional Data:

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

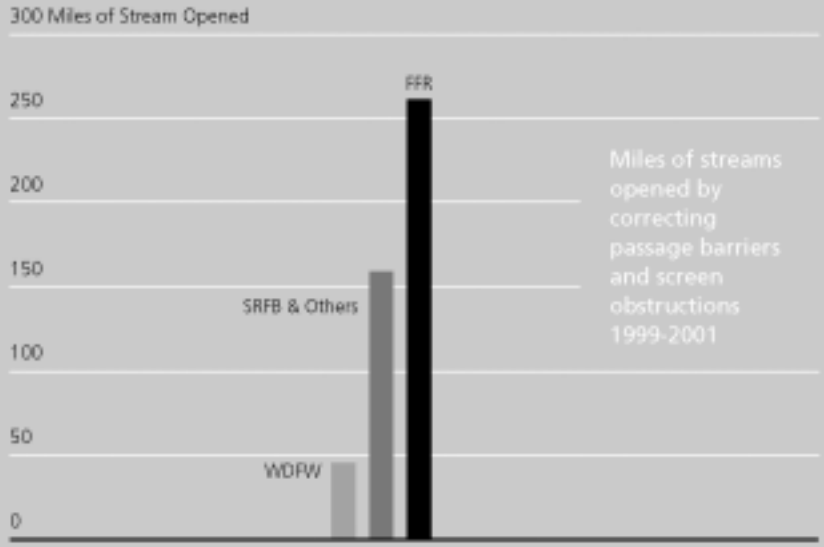
GOAL

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.



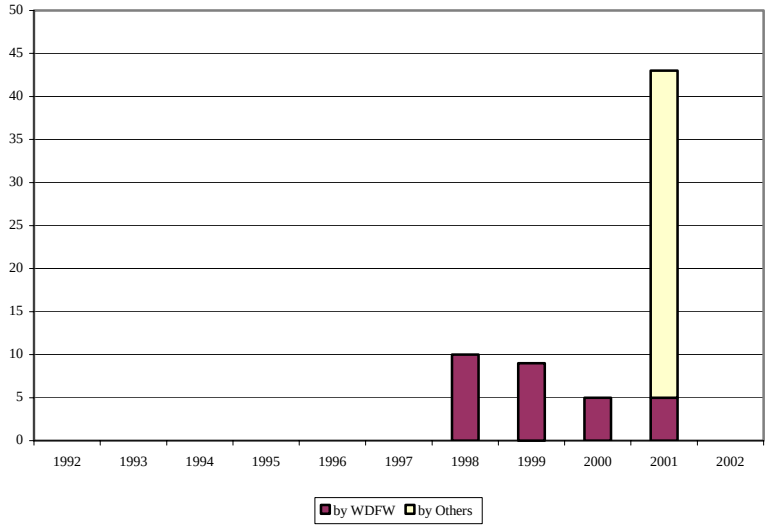
SRFB: Salmon Recovery Funding Board Projects.
WDFW: Washington Department of Fish & Wildlife Projects.
FFR: Forests and Fish Projects.

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

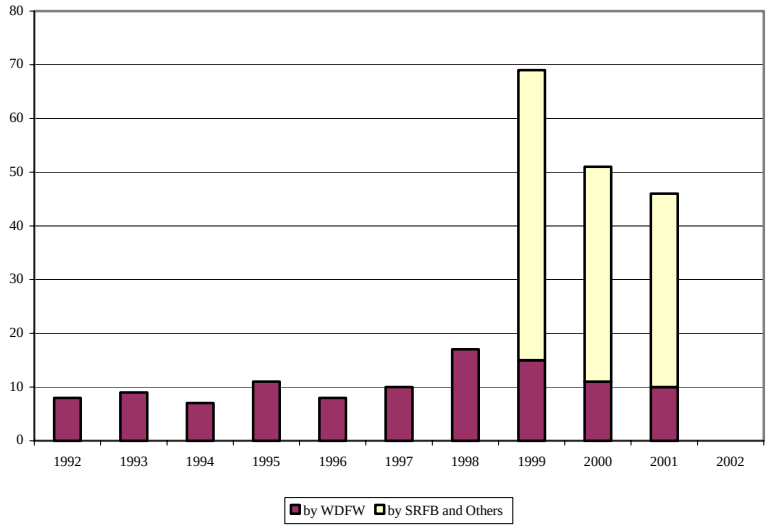
- During 1999-2001, an average fish passage barrier removal project not on forestlands opened 1.25 linear miles of stream.
- The average forestland passage barrier removal opened up 0.75 miles of habitat (WFPA estimates).
- SRFB project applicants estimate their projects have opened up 355 miles of streams (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

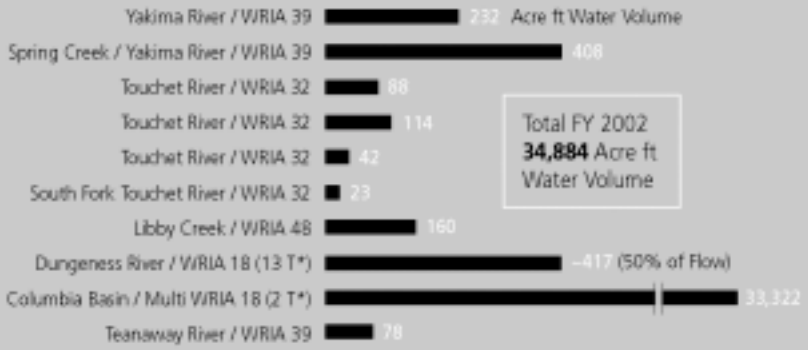
Our habitat, harvest, hatchery, and hydropower activities will benefit wild salmon.

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.

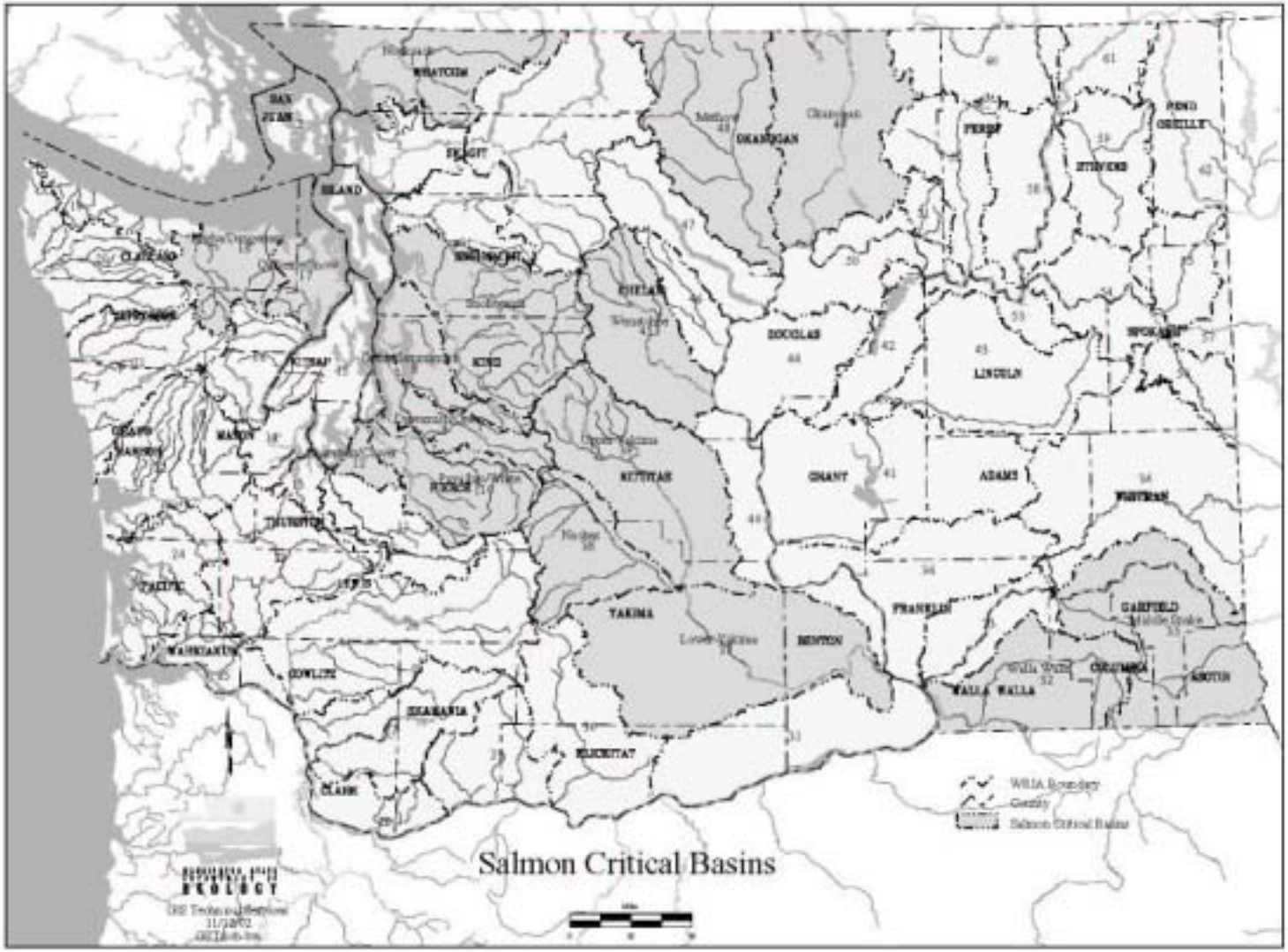
Volume of water restored to streams where water availability and flows are limiting factors



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

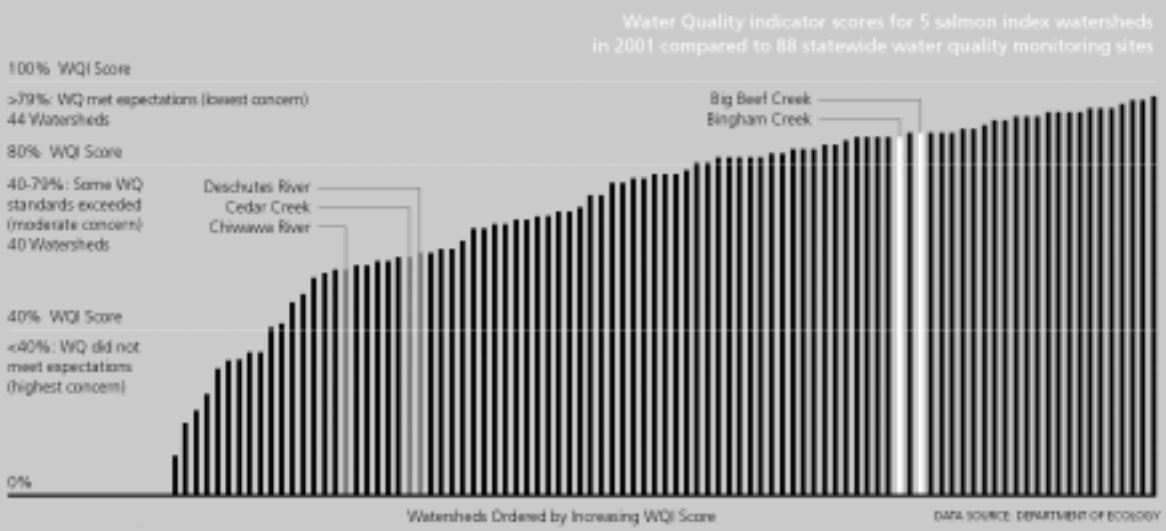
GOAL

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.



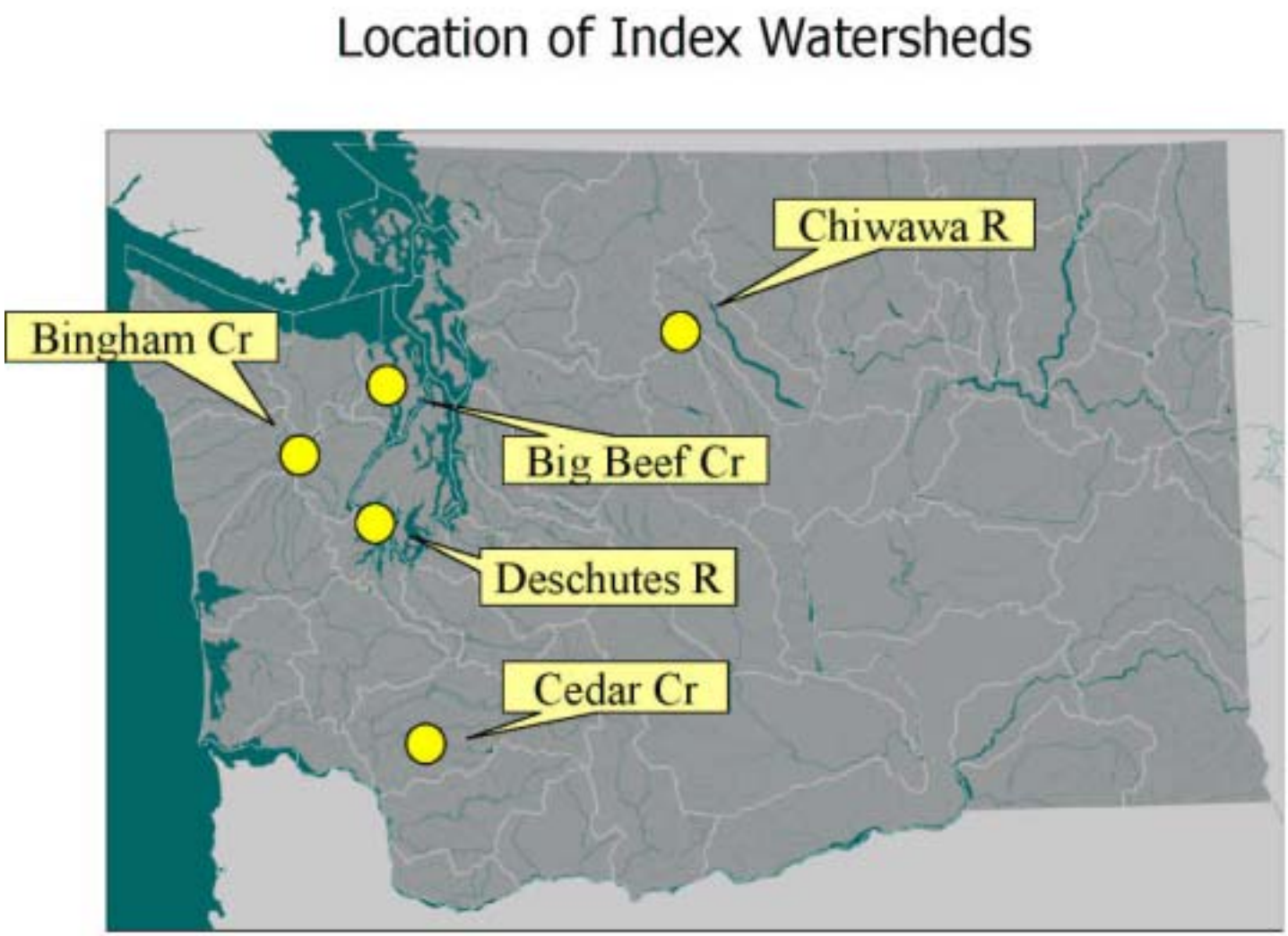
- Five index watersheds that are monitored for juvenile salmon production are also monitored for water quality in this indicator.
- **Water quality index (WQI)** is a number that aggregates water quality data at a monitoring station for temperature, pH, fecal coliform bacteria, dissolved oxygen, nutrients,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

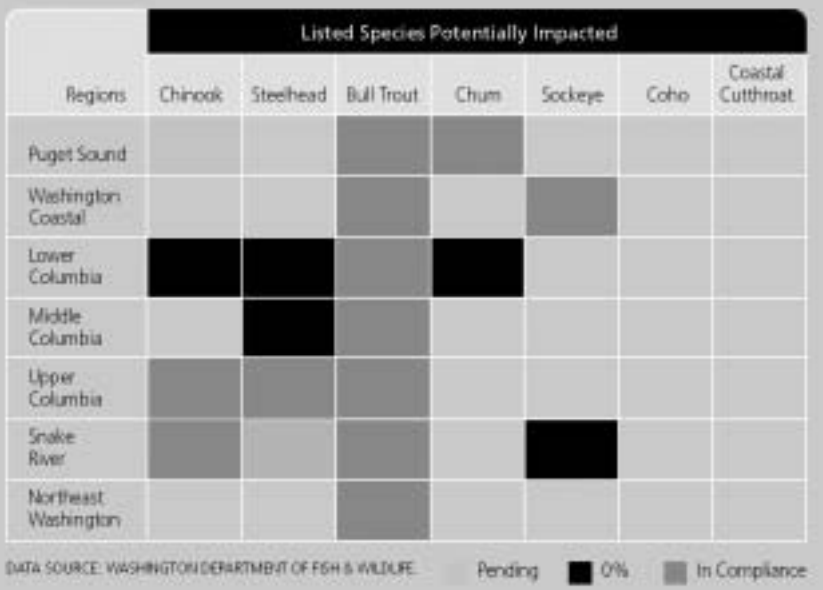
Our habitat, harvest, hatchery, and hydropower activities will benefit wild salmon.

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

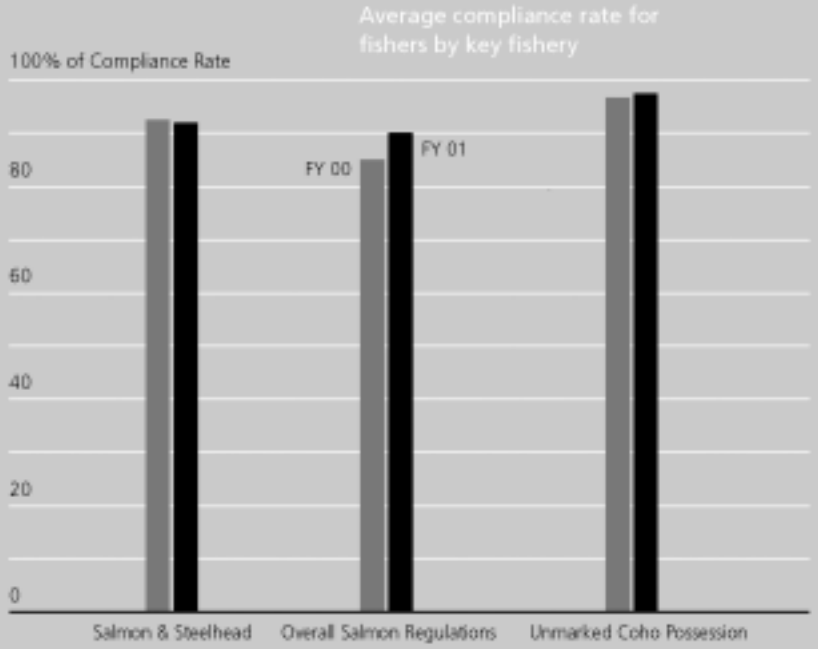
GOAL

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:

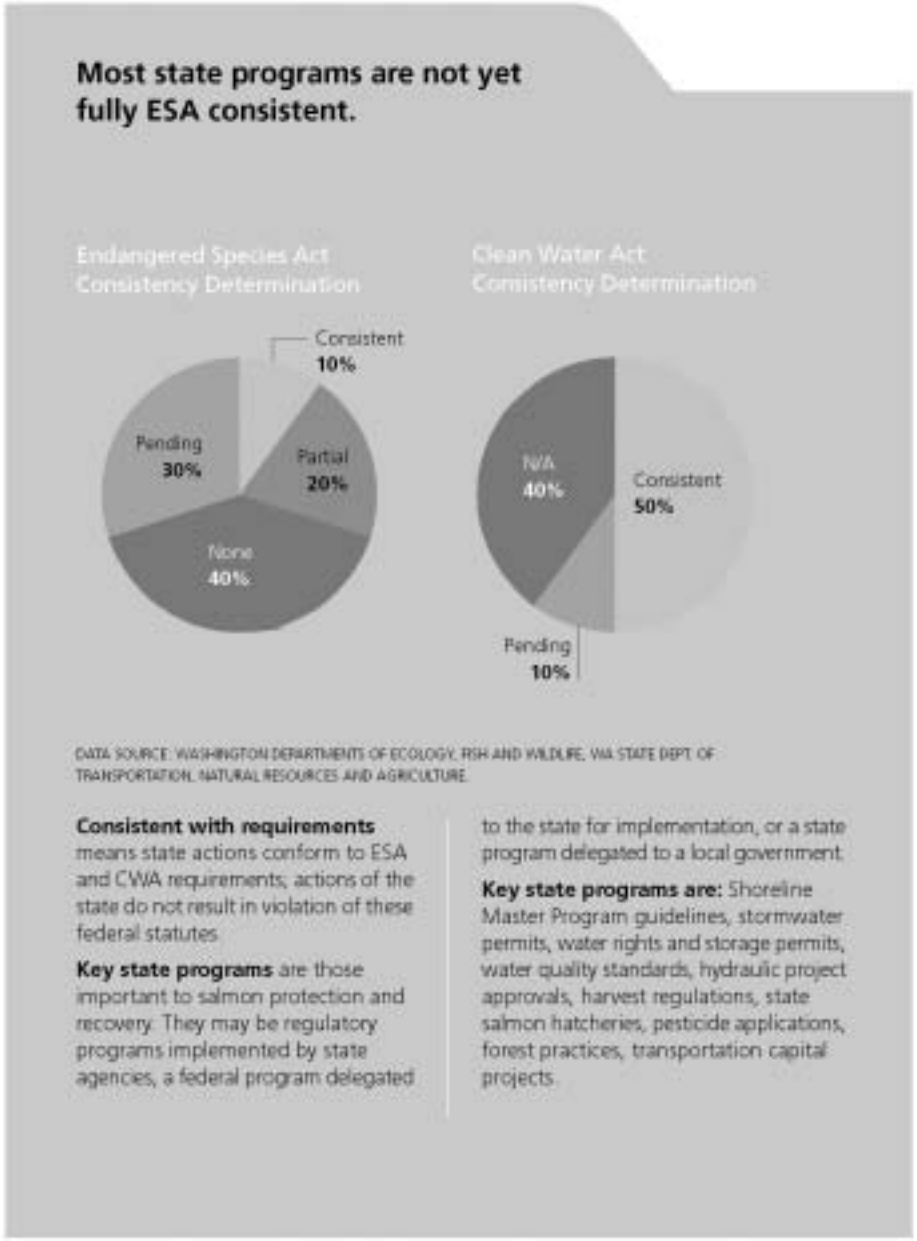
- Total = 75729 hours
- Equals over 37 full time employees

GOAL

We will meet Endangered Species Act and Clean Water requirements.

INDICATOR

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



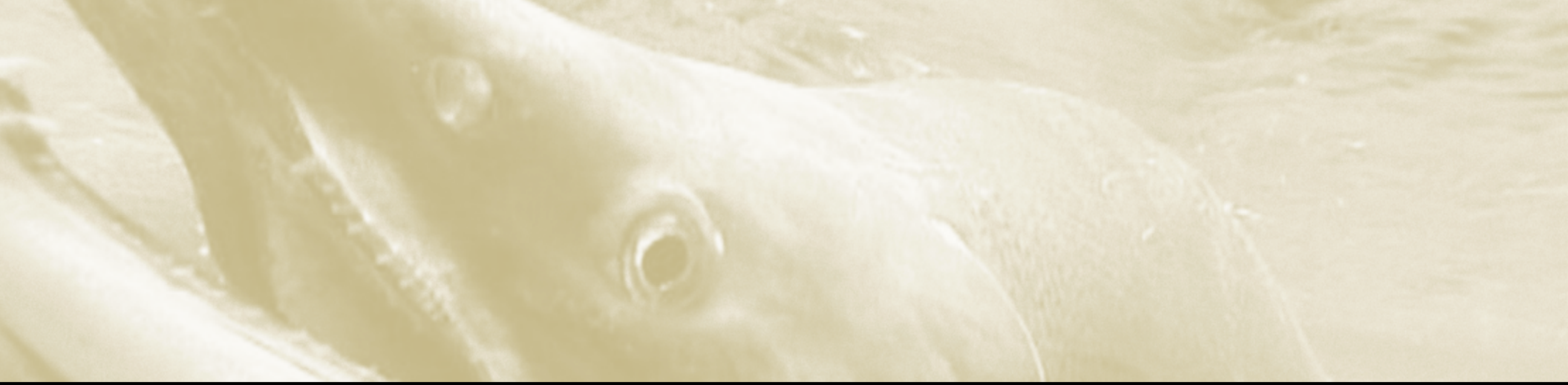
Additional Data:

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



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