
Appendix D: OPSW Actions Applying to This CCMP

The following actions from the Steelhead Supplement (Dec. 1997 draft) to the Oregon Plan for Salmon and Watersheds have been cited in text or cross-referenced in the CCMP Action Plans. Corresponding workplans exist for coho salmon.

Department of Environmental Quality

Phase 1 Measures

Phase 1 measures are those that can be implemented with currently approved budget limitation, or that require additional resources that will be sought through DEQ's program budget requests.

DEQ2S: Development of 303(D) List and Identification of Priorities for TMDL Development

DEQ will update the 303(d) list and TMDL priority list again in April 1998 and every two years thereafter. The updates to the list include an analysis of all water quality data available to the Department, and over time should provide a comprehensive list of all watersheds in Oregon where water quality standards are not being met.

DEQ4S: Enhanced 401 Certification for Fill and Removal Operations

Section 401 of the Clean Water Act requires state certification that water quality standards will be met when federally permitted dredge and fill operations are conducted in the state. DEQ will improve review and enforcement of 401 certification conditions for activities in steelhead ESUs to ensure adequate protection of all salmonid life stages.

DEQ5S: Revise Water Quality Standard for Sediment

During the next Triennial Review of water quality standards, beginning in the 1997-99 biennium, DEQ will undertake a major review of its sediment standard with the intent of significantly upgrading it to better address stream attributes related to sediment loads such as cobble embeddedness, particle size distribution and residual pool volume.

DEQ6S: Implement Antidegradation Water Quality Standard

DEQ will implement its antidegradation water quality standard in steelhead ESUs to address degradation of water quality that is currently cleaner than parameter specific water quality standards would allow. DEQ will ensure that point source discharges are subjected to antidegradation review as permits are issued for new or increased discharges, and will work with ODF, ODA and other state and federal natural resource agencies to ensure the antidegradation standard is implemented for nonpoint sources.

DEQ7S: Apply for Instream Water Rights on Streams with TMDLs

As TMDLs are developed for steelhead ESU waterbodies, DEQ will request as necessary instream water rights from WRD at flow levels necessary to ensure water quality standards can continue to be met once the TMDL is implemented. Of course, this will not affect senior water rights but it will give WRD the ability to limit additional appropriations that would adversely affect water quality and beneficial uses.

DEQ8S: Review and Revise Water Quality Standards during Triennial Review Process

Under Section 303(c) of the Clean Water Act, the state is required to review and, as appropriate, revise its water quality standards every three years. As DEQ undertakes this process it will make it a priority to update standards that primarily benefit salmonids to ensure they remain protective of the beneficial uses based upon the most current scientific information. DEQ will also investigate standards that go beyond parameter specific criteria and focus on habitat condition and the overall health of aquatic communities.

DEQ13S: Implementation of SDWA Source Water Protection Program

The source water protection requirements of the 1996 Safe Drinking Water Act Amendments include provisions for delineating or identifying public water system source areas that supply drinking water to citizens, assessing the source areas to determine potential sources of contamination, and implementing measures to protect the source waters from contamination. While the protection of drinking water sources is not undertaken to protect salmonid habitat, it does address many of the same issues (*e.g.* sedimentation, toxics, and nutrients) that are important to salmonids, and thus will significantly benefit steelhead habitat.

DEQ14S: Management of Point Source Discharges through NPDES Permits

DEQ has a number of rules in place that place strict limits on point source discharges to surface waters of the state. As DEQ implements these rules in the steelhead ESUs, it will review proposed permit applications for potential impacts on critical steelhead habitat to ensure protection of these areas.

DEQ15S: Management of Storm Water Discharges through NPDES Permits

Under Section 402(p) of the Clean Water Act pollution associated with storm water discharges from municipal and industrial/commercial activities is managed through NPDES permits. Rules to implement Phase 2 of the storm water program are currently under development by USEPA. DEQ will implement the Phase 2 storm water rules in Oregon, as it has the Phase 1 program. The Phase 2 program should reduce the impact of urban areas on water quality and salmon habitat.

DEQ16S: Revise SRF Loan Criteria to Help Protect Habitat and Coastal Resources

The State Revolving Fund (SRF) is primarily used by the state to fund improvements to municipal sewage treatment plants to assist in meeting water quality standards. During the next review of the priority list rules, DEQ will consider changes to make protection of salmon critical habitat a high priority for funding eligibility. DEQ will also consider SRF rule revisions to allow funding of nonpoint source projects, undertaken by either public or non-public entities, which enhance and protect critical salmon habitat

DEQ17S: Implement On-Site Program to Control Nutrient Loads to Surface Waters

DEQ has adopted standards for construction of on-site sewage disposal systems and oversees their installation through licensing of installers and construction permits. The construction standards are designed to prevent threats to public health and minimize nutrient loading (*esp.* nitrogen) to groundwater and surface water from the on-site treatment of human sewage. DEQ will review the program to determine whether adverse impacts are occurring to salmonid-bearing streams in the steelhead ESUs and make appropriate corrections as necessary.

DEQ18S: Implement Groundwater Protection Act to Prevent Adverse Impacts to Salmonid-Bearing Watersheds

Under the state Groundwater Protection Act, DEQ assesses groundwater quality throughout the state to determine where groundwater contamination has occurred due to nonpoint source practices. As DEQ implements its statewide assessment of groundwater, it will look for groundwater contamination that is affecting or threatening salmonid-bearing watersheds, and designate Groundwater Management Areas as appropriate to ameliorate the impacts of contaminated groundwater on surface water.

DEQ20S: Coastal Nonpoint Pollution Control Program

Nonpoint sources of pollution will be minimized in the Oregon coast ESUs through implementation of comprehensive state and local programs developed under Section 6217 of the Coastal Zone Act Reauthorization Amendments of 1990 (CZARA). Full implementation of the management measures designed by EPA and NOAA is expected by 2004, with benefits to salmonids continuing beyond full implementation.

DEQ21S: Tillamook Bay National Estuary Program

DEQ will continue to support and provide technical assistance for the development of a Coordinated Conservation Management Plan (CCMP) in the Tillamook Bay watershed that addresses salmon concerns. Tillamook Bay is an estuary of national significance as recognized through the National Estuary Program. A local management committee is charged with developing and implementing a conservation plan that will ensure water quality standards supportive of coastal salmon and other coldwater fisheries are attained.

PHASE 2 Measures

Phase 2 measures are those that require additional resources to implement.

DEQ1S: Implementation of Recently Revised Water Quality Standards for Temperature, Dissolved Oxygen, and Sedimentation

With the approval of the Healthy Streams Partnership budget, DEQ will use the additional resources to complete watershed assessments and TMDLs related to temperature, dissolved oxygen and inter-gravel dissolved oxygen for all 303(d) listed (1994/96 update) watersheds in steelhead ESUs by 2007.

DEQ3S: Watershed Council Support

The Department will enhance and improve support of local watershed council efforts to improve water quality in salmon-bearing waterbodies. DEQ will enhance its current watershed council technical assistance by providing additional monitoring support, additional support for management plan development, and targeted support for basin and project level site implementation in watersheds with mature programs. In areas where watershed activity is beginning or unfocused, additional technical assistance staff will be assigned to primarily provide program development, project guidance, and linkages to government programs and funding. Additional monitoring work will be provided as programs mature.

DEQ9S: Implement Water Quality Standards for Biological Criteria, Nutrients, Toxics and pH

With the approval of the Healthy Streams Partnership budget, DEQ will use the additional resources to complete watershed assessments and TMDLs related to biological criteria, pH, nutrients and toxics for all 303(d) listed (1994/96 update) watersheds in steelhead ESUs by 2007.

DEQ10S: Develop Water Quality Standards for Wetlands

During the next Triennial Review of water quality standards beginning in the 199799 biennium, DEQ will complete work on the issue paper for wetlands water quality standards and propose standards for adoption.

DEQ11S: Revise Water Quality Standards for Nutrients

During the next Triennial Review of water quality standards beginning in the 199799 biennium, DEQ will review EPA's nutrient criteria, including nitrogen and phosphorus, to determine if revisions to state water quality standards are appropriate to address beneficial use impairment due to excessive nutrient loads.

DEQ12S: Designation of Salmon Critical Habitat as Outstanding Resource Waters

DEQ will consider designating coho core areas and steelhead critical habitat areas as outstanding resource waters under the state Outstanding Resource Waters Policy, OAR 340-41-026(1)(a)(D), as it reviews waters nominated for designation during the next Triennial Review in the 1997B99 biennium.

DEQ19S: Water Quality Monitoring and Assessment

Water quality parameters identified as Factors for Decline include stream temperature, sediment, dissolved oxygen, total dissolved gas, biological communities, toxics, pH, and stream fertility. To meet assessment goals, and determine if milestones for improvement are being met, a monitoring strategy consisting of three interrelated sampling design approaches is proposed by DEQ.

DEQ33S: Evaluate and Require Mitigation for the Impacts of Dams and Hydroelectric Projects on Water Quality During Development of TMDLs

DEQ has committed to set Total Maximum Daily Loads (TMDLs) for 303(d) listed waterbodies throughout the state within the next 10 years. During the initial reconnaissance and studies to determine causes of water quality violations, DEQ will evaluate the effects of dams and hydroelectric projects. As appropriate, DEQ will include load allocations for dams and hydroelectric projects in the TMDLs.

DEQ34S: Compliance Rate Monitoring Plan

In addition to its normal extensive compliance assurance activities, the Department has identified additional ways it can look at the information in its possession on compliance status to develop a compliance rate monitoring plan. The goal of DEQ's compliance rate monitoring plan is to identify the level of compliance with NPDES permits, and to determine if adjustments to the compliance assurance program or program administration are needed. This will be accomplished by ensuring that adequate review and analysis of reports on permitted discharges occurs to allow statistically valid conclusions to be drawn about the compliance status of permitted sources on a watershed or larger scale.

Department of Land Conservation and Development

Base Program

DLCD: BP Statewide Growth Management Program and Periodic Review

DLCD: BP applies statewide.

Oregon's Statewide Land Use Planning Program provides a basic level of resource protection through the mechanism of enforceable local comprehensive land use plans which are required to comply with 19 Statewide Planning Goals. In Oregon, comprehensive plans are the fundamental mechanism for ensuring orderly, compact growth and development patterns. Local plans are implemented largely through land use (zoning) and land division ordinances. Oregon's land use program relies on a process called Periodic Review, wherein local jurisdictions develop work programs to review and update their comprehensive plans to address new requirements and changing circumstances.

In working with local jurisdictions to develop new Periodic Review work programs in areas subject to a steelhead listing, DLCD will emphasize the importance of salmon-related plan improvements, particularly measures to implement the Goal 5 riparian rules.

PHASE 1 MEASURES: To be implemented with existing resources

DLCD1: Implement the Coastal Nonpoint Pollution Control Program (CNPCP)

(only applies to coastal basins).

With DEQ, continue to manage the overall development of the Coastal Nonpoint Pollution Control Program (CNPCP) as required under 1990 amendments to the Coastal Zone Management Act. In partnership with state agencies and local governments, implement several nonpoint source pollution control measures through state and local programs, as appropriate.

DLCD2: Riparian Area Technical Assistance

DLCD will contract to develop model ordinances and other materials, as necessary and appropriate, for use by local government in amending local land use regulations to implement the riparian area protection and restoration provisions in the newly-amended administrative rules for Statewide Planning Goal 5, Open Spaces, Scenic and Historic Areas, and Natural Resources.

DLCD3: Identify Estuarine Restoration Opportunities

(only applies to coastal basins)

DLCD will provide consultation and assistance to local governments that want to amend the restoration site inventories in their estuary management plans. The initial effort will emphasize the identification of diked tidelands inside UGBs which may be zoned for development.

DLCD5: Implement Urban Management Measures Under the CNPCP

(only applies to steelhead ESUs 6 and 7 and the western half of ESU 3).

In partnership with DEQ and local governments, and as part of the coastal nonpoint pollution control program, DLCDC will facilitate implementation of measures designed to reduce nonpoint source pollution generated in areas subject to urban levels of development and from road systems operation and maintenance.

The Division Of State Lands

Phase I Measures: Removal-Fill Program

DSL1: Develop Standardized Permit Conditions Reflecting Best Management Practices For Removal-Fill Activities

The Division of State Lands will work with ODFW, DEQ, the Corps, NMFS and other agencies to update its standard permit conditions to reflect Best Management Practices (BMPs) for various types of removal-fill activities (*e.g.*, commercial gravel removal, erosion control).

DSL2: Limit Commercial Gravel Removal From Individual Bars To Annual Recruitment

The Division will, through permit conditions, limit commercial gravel removal from individual bars to annual recruitment.

DSL3: Revise Administrative Rules on Essential Salmonid Habitat

The Division of State Lands will revise its administrative rules governing issuance of removal-fill permits in areas identified by ODFW as essential indigenous anadromous salmonid habitat.

DSL4: Strengthen Interagency Coordination in Removal-Fill Permitting

The Division of State Lands will work with ODFW, DEQ, ODF, OSP and the Corps to improve interagency coordination in removal-fill permitting. If necessary, this will include new or revised Memoranda of Agreement (MOA) regarding each agency's role in reviewing removal-fill permit applications and providing monitoring and compliance checks for ongoing removal-fill projects.

DSL5: Revise the General Authorization for Road Construction to Enhance Habitat Protection

In 1996, the Division of State Lands revised its General Authorization (GA) for road construction to reduce the potential impacts on salmonids and their habitat from authorized construction activities.

DSL6: Revise the GA for Erosion Control to Enhance Habitat Protection

In 1996, the Division of State Lands revised its GA for erosion control to reduce the adverse impacts on salmonids and their habitat from authorized erosion control activities.

DSL7: Revise the GA for Fish Habitat Enhancement to Improve Habitat Values

In 1996, the Division of State Lands revised its GA for fish habitat enhancement to expand its applicability, improve habitat values and streamline the process for enhancement projects.

DSL8: Facilitate More Wetland Restoration and Enhancement Projects

In 1996, the Division of State Lands revised its GA for wetland restoration and enhancement to streamline the process.

DSL9: Develop Guidelines for Issuing Individual Permits Rather Than Gas

The Division of State Lands developed guidelines for determining when removal-fill activities that otherwise qualify for a GA may have potential individual or cumulative impacts that deserve the full scrutiny of an individual permit.

DSL10: Conduct Monitoring and Outreach on Recreational and Small-Scale Placer Mining in Essential Habitat

In 1996B97, the Division of State Lands developed permanent administrative rules regarding recreational and small-scale placer mining affecting less than 25 cubic yards annually in areas designated as essential indigenous anadromous salmonid habitat under the Removal-Fill Law. From 1997B99 the Division will conduct monitoring and outreach on placer mining activities in essential habitat.

DSL12: Analyze a Payment-in-Lieu of Mitigation Approach for Commercial Gravel Removal with the Revenue Dedicated to Habitat Restoration and Enhancement

During 1997, DSL analyzed a payment-in-lieu of compensatory mitigation approach to addressing the unavoidable impacts of commercial gravel removal. At present the Division considers this obligation fulfilled by the industry's current contributions, but will revisit the issue in 1999.

DSL13: Target Compensatory Wetlands Mitigation to Salmon Habitat Projects

The Division of State Lands will work with removal-fill permit applicants to target compensatory wetlands mitigation to riparian zones for off-channel ponds and other fish habitat enhancement projects.

DSL14: Work With Other Agencies to Clarify Jurisdiction over Removal of Large Woody Debris

The Division of State Lands will work with other state and federal agencies to clarify each agency's legal jurisdiction over the removal of large woody debris from streams and estuaries, and develop legislation or regulations to fill any gaps in jurisdiction.

DSL15: Increase Field Presence in Coastal Essential Salmonid Habitat

In 1996 and 1997, the Division of State Lands provided funds for two additional temporary staff who focused their work in coastal basins. DSL will continue to hire temporary field staff during the 1998 and 1999 summer operating seasons (see DSL10; DSL30).

DSL16: Develop Administrative Rules for Mitigation Banking and for Payment or Protection in Lieu of Mitigation

In 1997 the Division of State Lands adopted administrative rules on wetland mitigation banking, protection of existing high quality wetlands in lieu of mitigation, and payment in lieu of compensatory mitigation.

Phase I Measures: Wetlands Program

DSL17: Promote Coordination of Wetland Inventories with Other Natural Resource Planning Efforts

As one of the criteria for evaluating wetland inventory grant applications, the Division will evaluate whether planning efforts are coordinated with other efforts to assess watershed conditions and develop mechanisms to conserve or restore water quality and/or fish and wildlife habitat.

DSL18: Develop Administrative Rules on Locally Significant and Outstanding State Wetlands

In 1996-97 the Division of State Lands developed administrative rules that provide guidance to local governments conducting wetland inventories on determining which wetlands are significant and deserving of protection.

DSL19: Continue Implementation of Oregon's Wetland Conservation Strategy

The Division of State Lands will continue to implement Oregon's Wetland Conservation Strategy, which establishes priorities for an integrated state wetlands program.

Phase I Measures: Proprietary

DSL21: Evaluate the Habitat Potential of Scattered Coastal Tracts

The Division of State Lands will inventory the Common School Fund Trust Lands in Western Oregon for their salmon habitat value, and develop appropriate conservation strategies for those parcels with high value habitat.

Phase I Measures: Outreach and Education

DSL23: Update Public Education Materials on Removal-Fill Projects

The Division of State Lands will update its public education tools (*e.g.*, brochures, fact sheets) on removal-fill activities.

DSL24: Develop Information Packets for Watershed Councils

The Division of State Lands developed a standard technical assistance package for watershed councils.

DSL25: Help Develop Removal-Fill Education Materials for Contractors

The Division of State Lands will work with the state boards that license contractors to help develop education materials on the environmental impacts of removal-fill activities.

Phase II Measures: Removal-Fill Program

DSL26: Analyze and Implement Regulatory Streamlining Options

The Division of State Lands will continue to analyze and implement regulatory streamlining options, including state assumption of the Clean Water Act Sec. 404 dredge/fill permit program currently administered by the Corps of Engineers, a State Programmatic General Permit, and/or General Authorizations.

DSL27: Add Permanent Field Staff in Coastal Basins

The Oregon Legislature authorized the Division of State Lands to add two permanent positions (one field and one support) to be devoted to removal-fill project technical assistance, outreach, monitoring and compliance in essential indigenous anadromous salmonid habitat and field activities related to Oregon Plan program measures.

Supplement Measures

DSL31: Extend Essential Salmonid Habitat Designations to Include Steelhead

The Division of State Lands will review and amend, when necessary, its essential salmonid habitat designations and maps for steelhead where they are listed as sensitive, threatened or endangered. Where they are not so listed, DSL will ask ODFW to review the steelhead status.

DSL33: Develop and Implement a Compliance Monitoring Plan

The Division of State Lands will develop and implement a compliance monitoring plan intended to estimate rates of compliance with the overall permit requirements of the Removal-Fill Law and with site-specific removal-fill permit conditions.

South Slough National Estuarine Research Reserve

Phase I Measures

SSNERR3: Conduct Research on Estuarine Habitat

SSNERR will continue to conduct research on estuarine salmonid habitat conditions, uses and needs.

Oregon Natural Heritage Program

Phase II Measures

ONHP1: Add Fisheries Information to the Natural Heritage Data Bank

The Oregon Natural Heritage Program (ONHP) will develop and maintain a database for coastal coho, steelhead and Umpqua cutthroat trout.

ONHP2: Complete the Biodiversity Data Layer

ONHP will complete and maintain the GIS layer showing the contribution of designated lands to the maintenance of fish, wildlife and other components of biodiversity.

Oregon Department of Agriculture

ODA 1: SB 1010 Program

The focus of this program is on the development of agricultural water quality management area plans for water quality limited watersheds through a cooperative effort with local farmers and ranchers. Plans will identify problems and outline ways to correct those problems.

a. The Healthy Streams Partnership agreement creates a timeline for developing agricultural water quality management area plans for all water quality limited watersheds in the state.

ODA 2: Confined Animal Feeding Operations Program (CAFOs).

This program ensures compliance with existing clean water laws of non-point pollution sources related to animal feeding operations. This regulatory program is under ORS 468B.200.230.

a. *CAFO Courtesy Compliance Inspection Program* is contingent on EPA Sec.104(b)(3) funding and industry interest. The program focuses on voluntary, collaborative efforts and provides an opportunity for a

courtesy compliance audit at the landowner's request. When the program is established, a proactive effort to identify operations showing evidence of non-compliance may be initiated.

ODA 3: Education/Outreach/Incentives

a. Habitat Restoration Jobs Program (a.k.a. the Hire the Fisher Program) is a federal salmon disaster relief program with a primary focus on hiring eligible fishers to perform work on private lands which has a beneficial impact on salmon habitat. The department provides program coordination, the Natural Resources Conservation Service provides technical assistance and the Soil & Water Conservation Districts provide administrative oversight.

b. ODA-GWEB SWCD \$5,000 grant program provides each Soil and Water Conservation District (45 total) with a \$5,000 grant each biennium for natural resource conservation projects in their respective districts. This is an ongoing grant program carried out in cooperation with GWEB.

c. ODA-GWEB SWCD Landowner workshops provide funding for conducting workshops (10 in 1997) with landowners on watershed health issues. This ongoing grant program is carried out in cooperation with GWEB.

d. ODA-GWEB SWCD Watershed Council Coordinator support program provides resources to coordinators for implementation of watershed council activities. The program is administered by the SWCDs, but the coordinator's workplan is defined by the watershed council. The program was not funded for the 1997B99 biennium.

e. Soil and Water Conservation Commission Planning and Implementation grant program provides support for natural resource conservation planning and projects. Program has been ongoing since 1981.

f. Land Management Stewardship Outreach program formalizes ongoing efforts within the Department to promote proactive land management stewardship. Outreach and educational activities include: development of specific publications (*i.e.*, Water Quality Protection Guide, Early Action Guide for pre-SB1010 planning efforts), development of slide and/or oral presentations for delivery to affected agricultural groups, and collaborative efforts with other natural resource agencies (*i.e.*, work cooperatively with other state agencies on resolving fish passage concerns associated with push-up dams). An Outreach Specialist in the Department's Natural Resources Division will be hired in early 1998 to provide educational outreach assistance to regional agricultural water quality management area planning and implementation efforts.

g. ODA-GWEB SWCD Technical assistance program for the implementation of the Oregon Plan: includes funding for technical staff assistance and individual farm and ranch plan development, and is aligned with the goals of the Healthy Streams Partnership.

ODA 4: Compliance Rate Monitoring

This measure outlines the Department's strategies for auditing its regulatory programs.

Oregon Department Of Forestry

ODF1S: Road Erosion and Risk Project

Many forest roads built prior to the development of the Oregon Forest Practices Act or prior to the current BMPs pose increased sediment risk to fish habitat. Industrial forest landowners have agreed to implement a voluntary program to identify risks from roads and to address those risks. ESU Application: Coastal Coho

ESUs, Coastal Steelhead ESUs, Lower Columbia Steelhead ESU, Upper Willamette Steelhead ESU, Mid-Columbia ESU.

ODF2S: State Forest Lands Road Erosion and Risk Project

State forest landowners have agreed to implement a voluntary program on state-owned lands to identify risks from roads and to address those risks. This effort will upgrade at least 130 miles of road in each of the next three bienniums. Many of the road systems were built prior to the Oregon Forest Practices Act to salvage Tillamook Burn timber in the 1950's. The State Forest land was in private ownership at that time.

ESU Application: Coastal Coho ESUs, Coastal Steelhead ESUs, Lower Columbia Steelhead ESU, Upper Willamette Steelhead ESU.

ODF3S: Technical and Policy Review of Rules and Administrative Processes Related to Slope Stability

To analyze the effects of the February 1996 and November 1996 storms, the Department is in the process of collecting and analyzing landslide information from study zones within the storm areas, this project is described in measure ODF 13. As a follow-up of the monitoring effort the Board of Forestry will review the existing Forest practice rules and program in relation to slope stability to determine if changes in rules or administration procedures are needed. The review process will be two fold focusing on public safety and impacts on fish habitat and water quality.

ESU Application: Coastal Coho ESUs, Coastal Steelhead ESUs, Lower Columbia Steelhead ESU, Upper Willamette Steelhead ESU, Mid-Columbia ESU.

ODF 4S: Stream Habitat Assessments

For the last three years, industrial forest landowners and State Forest lands have contracted with ODFW to complete stream habitat surveys following modified Hankin and Reeves protocol (ODFW protocol).

Assessments to date have included approximately 5,000 miles of stream statewide.

ESU Application: Coastal Coho ESUs, Coastal Steelhead ESUs, Lower Columbia Steelhead ESU, Upper Willamette Steelhead ESU, Mid-Columbia ESU.

ODF5S: North Coast Salmonid Habitat Restoration Project

The North Coast Salmonid Habitat Restoration Project is an existing program that's been in place for two years. Membership is open to all landowners that share a commitment to stream habitat conservation, restoration and enhancement through cooperative means and who can contribute valuable resources (time, equipment, dollar) to support the Project's objectives.

ESU Application: Coastal Coho ESUs, Coastal Steelhead ESUs.

ODF7S: Fund 7 New Fish Biologists to Provide Technical Assistance for Salmonid Habitat Restoration

This voluntary measure by the Oregon Forest Industries Council (OFIC) landowners will function to provide technical assistance in western Oregon to forest landowners conducting salmonid habitat restoration projects. Current in-place grassroots efforts such as the north and mid coast initiatives (ODF 5 and 6) lack stable funding. This action will absorb these and create five additional areas covering all of western Oregon providing long term stable funding. This project area will include the western slopes of the Cascades to the Pacific Ocean.

ESU Application: Coastal Coho ESUs, Coastal Steelhead ESUs, Lower Columbia Steelhead ESU, Upper Willamette Steelhead ESU.

ODF8S: Riparian Hardwood Conversions

FP rules have been developed to allow and provide incentives for the conversion of hardwood dominated RMAs (on conifer sites) to establish conifers. This process enables sites capable of growing conifers to

contribute conifer LWD in a more timely manner. This process will be modified to require an additional review process before implementation for hardwood conversions within core areas.

ESU Application: Coastal Coho ESUs, Coastal Steelhead ESUs, Lower Columbia Steelhead ESU, Upper Willamette Steelhead ESU.

ODF9S: Northwest State Forest Lands Management Plan

Oregon Department of Forestry is preparing a NW Oregon State Forest management Plan. A draft plan is expected to be completed by the summer of 1997. The plan will cover over 600,000 acres of state forest land and will address the full array of statutory mandates and Board and department policies. ODF is working closely with ODFW in developing the plan, and has solicited input from stakeholders through a variety of forums.

ESU Application: Coastal Coho ESUs, Coastal Steelhead ESUs, Lower Columbia Steelhead ESU, Upper Willamette Steelhead ESU.

ODF10S: Forest Practices Monitoring Program

The FP monitoring program evaluates: the implementation of forest practices BMPs, determines if BMPs are meeting their intended purposes, and validates assumptions upon which rules may have been developed.

ESU Application: Coastal Coho ESUs, Coastal Steelhead ESUs, Lower Columbia Steelhead ESU, Upper Willamette Steelhead ESU, Mid-Columbia ESU.

ODF11S: Monitoring of Riparian Management Areas under the Forest Practice Act

The riparian monitoring project will look at the effectiveness of the 1994 water protection rules in maintaining and creating sources of current and potential large wood and in maintaining effective riparian stand structure in terms of stream protection and wildlife habitat.

ESU Application: Coastal Coho ESUs, Coastal Steelhead ESUs, Lower Columbia Steelhead ESU, Upper Willamette Steelhead ESU, Mid-Columbia ESU.

ODF12S: Monitoring Effectiveness of BMPs in Protecting Water Quality during Aerial Applications of Forest Pesticides

The Board of Forestry recently reviewed and revised the state's forestry chemical application rules. As part of the chemical rule revisions the Board adopted OAR 629-620-700 committing Oregon Department of Forestry to monitoring compliance with and the effectiveness of the chemical and other petroleum rules.

ESU Application: Coastal Coho ESUs, Coastal Steelhead ESUs, Lower Columbia Steelhead ESU, Upper Willamette Steelhead ESU, Mid-Columbia ESU.

ODF13S: Storms of 1996 Monitoring Project

The storms of 1996 resulted in many landslides, channel changes, and other effects to natural resources, and public and private resources. The goal of the project is to determine which forest practices and designs successfully minimized or contributed to impacts. The project includes intensive on-the-ground data collection regarding landslides, debris torrents, roads, channel impacts, and fish habitat.

ESU Application: Coastal Coho ESUs, Coastal Steelhead ESUs, Lower Columbia Steelhead ESU, Upper Willamette Steelhead ESU.

ODF14S: Monitoring Water Temperature Protection BMPs

This project was initiated in 1994 and will continue for the next several years. The general approach for this project has been to record stream temperatures and physical characteristics of a variety of streams under various silvicultural activities allowed under the water protection rules ESU Application: Coastal Coho ESUs, Coastal Steelhead ESUs, Lower Columbia Steelhead ESU, Upper Willamette Steelhead ESU, Mid-Columbia ESU.

ODF15S: Evaluation of Road and Timber Harvest BMPs to Minimize Sediment Impacts

The purpose of this project is to provide land managers and appropriate agencies with specific information on road drainage practices that minimize sediment entry into streams and how these practices are implemented in western Oregon.

ESU Application: Coastal Coho ESUs, Coastal Steelhead ESUs, Lower Columbia Steelhead ESU, Upper Willamette Steelhead ESU.

ODF16S: Evaluation of Adequacy of Fish Passage Criteria

The objective of this project is to determine if the interagency design criteria recently adopted for fish passage structures meet the objective of providing passage for both adult and juvenile fish ESU Application: Coastal Coho ESUs, Coastal Steelhead ESUs, Lower Columbia Steelhead ESU, Upper Willamette Steelhead ESU, Mid-Columbia ESU.

ODF17S: Site-Specific Plans for Vegetation Retention Within RMAs on Northwest and Southwest (Grants Pass) Oregon State Forest Lands.

Until the Northwest Forest Plan is completed, this measure will be used to ensure that the desired future condition for RMAs established under the Forest Practices Act is achieved to the maximum extent practicable on State Forest Lands. Actual site-specific stocking will be used to calculate BA targets following the procedures used in developing the standard targets .

ESU Application: Coastal Coho ESUs, Coastal Steelhead ESUs, Lower Columbia Steelhead ESU, Upper Willamette Steelhead ESU.

ODF18S: Wildlife Tree Placement on State Forest Lands

Wildlife trees required to be retained in harvest units will be retained along Type N streams on all NW and SW (Grants Pass) State Forest lands unless otherwise directed by ODFW.

ESU Application: Coastal Coho ESUs, Coastal Steelhead ESUs, Lower Columbia Steelhead ESU, Upper Willamette Steelhead ESU, Mid-Columbia ESU.

ODF19S: Additional Conifer Retention along Fish-Bearing Streams in Core Areas

Within Core Areas, OFIC members have voluntarily agreed to harvest no more than 25 percent of the conifer that are in excess of the standard basal area target in those situations when the actual stocking in the RMA exceeds the standard target .

ESU Application: Coastal Coho ESUs, Coastal Steelhead ESUs, Lower Columbia Steelhead ESU, Upper Willamette Steelhead ESU, Mid-Columbia ESU.

ODF20S: Limited RMA for Small Type N Streams in Core Areas

Establishes limited RMAs of 20 feet for small type N streams for the purpose of retaining snags and downed wood.

ESU Application: Coastal Coho ESUs, Coastal Steelhead ESUs, Lower Columbia Steelhead ESU, Upper Willamette Steelhead ESU, Mid-Columbia ESU.

ODF21S: Active Placement of LWD during Forest Operations

Following ODF/ODFW placement guidelines, implement an aggressive and comprehensive effort to place more large wood in streams during forest operations on OFIC member lands. Recommended placement targets will be developed jointly by ODF/ODFW.

ESU Application: Coastal Coho ESUs, Coastal Steelhead ESUs, Lower Columbia Steelhead ESU, Upper Willamette Steelhead ESU, Mid-Columbia ESU.

ODF22S: 25 Percent In-Unit Leave Tree Placement and Additional Voluntary Retention

This is a voluntary measure to retain up to 100 percent of the in-unit trees along Type N or F streams in "core

areas" and other special areas along specific stream reaches when ODF in consultation with ODFW determine additional retention along streams is beneficial to coho salmon recovery.

ESU Application: Coastal Coho ESUs, Coastal Steelhead ESUs, Lower Columbia Steelhead ESU, Upper Willamette Steelhead ESU, Mid-Columbia ESU.

ODF23S: BMP Compliance Audit Program

Within this measure ODF will conduct compliance auditing. Compliance auditing will be planned and implemented within the next two years by the Department. Compliance auditing programs provide a statistically valid sample of the level of compliance and help establish how identified compliance problems are best resolved.

ESU Application: Coastal Coho ESUs, Coastal Steelhead ESUs, Lower Columbia Steelhead ESU, Upper Willamette Steelhead ESU, Mid-Columbia ESU.

ODF24S: State Forest Lands Stream Habitat Assessment and Instream Projects

During 1994 and 1995, 305 miles of stream have been surveyed for habitat on State Forest lands by ODFW biologists. Fish distribution surveys have been done on 260 streams and stored on GIS. Contracts with ODFW are planned to complete assessments for the remaining streams and adjacent riparian areas.

ESU Application: Coastal Coho ESUs, Coastal Steelhead ESUs, Lower Columbia Steelhead ESU, Upper Willamette Steelhead ESU.

ODF25S: Fish Presence/Absence Surveys and Fish Population Surveys

This is a voluntary program in which industrial forest landowners and state lands conduct or have contracted with ODFW to survey for absence and presence of salmonid fish.

ESU Application: Coastal Coho ESUs, Coastal Steelhead ESUs, Lower Columbia Steelhead ESU, Upper Willamette Steelhead ESU, Mid-Columbia ESU.

ODF27S: Increased Riparian Protection

1994 Forest Practices rule changes have increased vegetation retention requirements in RMAs to increase protection and the potential delivery to near optimal for LWD.

ESU Application: Coastal Coho ESUs, Coastal Steelhead ESUs, Lower Columbia Steelhead ESU, Upper Willamette Steelhead ESU, Mid-Columbia ESU.

ODF28S: Protection of Significant Wetlands, Including Estuaries

Forest practice rules requiring protection of riparian management areas around significant wetlands, including all estuaries were implemented in late 1991. While all wetlands are protected under the forest practice rules, this change requires the retention of riparian vegetation around the wetland in addition to retention of vegetation within the wetland.

ESU Application: Coastal Coho ESUs, Coastal Steelhead ESUs, Lower Columbia Steelhead ESU, Upper Willamette Steelhead ESU, Mid-Columbia ESU.

ODF29S: Forest Practice Chemical Protection Rules Increased Buffers

The Board of Forestry has recently reviewed and revised the state's forestry chemical application rules. The changes include providing protection to vegetation required to be protected by the water protection rules, increasing distances for the exclusion of direct aerial application of fungicides and non-biological insecticides from 60 to 300 feet from the aquatic areas of Type F and Type D streams, large lakes and any lakes with fish use, any areas of standing open water larger than one-quarter acre, and significant wetlands.

ESU Application: Coastal Coho ESUs, Coastal Steelhead ESUs, Lower Columbia Steelhead ESU, Upper Willamette Steelhead ESU, Mid-Columbia ESU.

ODF30S: Large Woody Debris Recruitment Incentives

Large wood placement incentives were included in the September 1994 Forest Practice Water Protection Rules. Forest Practice Rules have been developed to provide landowner incentives to work with ODF and ODFW in the voluntary placement of large wood and other material where appropriate.

ESU Application: Coastal Coho ESUs, Coastal Steelhead ESUs, Lower Columbia Steelhead ESU, Upper Willamette Steelhead ESU, Mid-Columbia ESU.

ODF31S: Large Woody Debris Placement Guidelines

ODF and ODFW have developed a guidelines publication for operators to use in the placement of large wood in streams. If a proposed large wood placement project meets the ODF guidelines contained in the publication the process for acquiring approval is streamlined. The landowner or operator still must obtain prior approval of a written plan before proceeding with the project.

ESU Application: Coastal Coho ESUs, Coastal Steelhead ESUs, Lower Columbia Steelhead ESU, Upper Willamette Steelhead ESU, Mid-Columbia ESU.

ODF32S: Fish Presence Survey [OAR 629-635-200(11)]

This measure will fund and complete an interagency "fish" (salmonids, game fish, and threatened and endangered fish) presence survey to improve efficiency of program deliveries and to ensure that protection is delivered as was intended by the forest practice rules and other programs. This survey also identifies barriers to fish passage.

ESU Application: Coastal Coho ESUs, Coastal Steelhead ESUs, Lower Columbia Steelhead ESU, Upper Willamette Steelhead ESU, Mid-Columbia ESU.

ODF33S: Increase Number of Streams and Stream Miles Protected

Through Forest Practice Rule changes protected stream miles have increased approximately 30 percent.

ESU Application: Coastal Coho ESUs, Coastal Steelhead ESUs, Lower Columbia Steelhead ESU, Upper Willamette Steelhead ESU, Mid-Columbia ESU.

ODF34S: Improve Fish Passage BMPs On Stream Crossing Structures

Modification of BMPs for stream crossing structures to require adult/juvenile passage upstream and downstream.

ESU Application: Coastal Coho ESUs, Coastal Steelhead ESUs, Lower Columbia Steelhead ESU, Upper Willamette Steelhead ESU, Mid-Columbia ESU.

ODF35S: Increase Design for Larger Flows

Modification of BMPs for stream crossing structures from 25 to 50-year storm events.

ESU Application: Coastal Coho ESUs, Coastal Steelhead ESUs, Lower Columbia Steelhead ESU, Upper Willamette Steelhead ESU, Mid-Columbia ESU)

ODF36S: Upgraded Road Construction and Fill Requirements

Road construction BMPs have been changed to require excavation and fills to be minimized at stream crossings, and that any road fill greater than 15 feet deep must obtain prior approval.

ESU Application: Coastal Coho ESUs, Coastal Steelhead ESUs, Lower Columbia Steelhead ESU, Upper Willamette Steelhead ESU, Mid-Columbia ESU.

ODF37S: Upgraded Skid Trail Construction and Fill Requirement

Skid trail construction BMPs have been changed to require excavation and fills to be minimized at stream crossings, and that any skid trail fill greater than 8 feet deep must obtain prior approval.

ESU Application: Coastal Coho ESUs, Coastal Steelhead ESUs, Lower Columbia Steelhead ESU, Upper Willamette Steelhead ESU, Mid-Columbia ESU.

ODF38S: Clearcut Limitations

ORS 527.740 restricts clearcuts to 120 acres in size. Combined acreage clearcuts that exceed 120 acres, must be separated by 300 feet until any adjacent areas are reforested and have reached free to grow (generally at least four years).

ESU Application: Coastal Coho ESUs, Coastal Steelhead ESUs, Lower Columbia Steelhead ESU, Upper Willamette Steelhead ESU, Mid-Columbia ESU.

ODF54S: Forest Resource Trust

A loan or capital venture investment program to convert underproducing and non-stocked non-industrial forest land into healthy forests. Provides up to 100 percent of the cost of establishing a new stand of trees.

ESU Application: Coastal Coho ESUs, Coastal Steelhead ESUs, Lower Columbia Steelhead ESU, Upper Willamette Steelhead ESU, Mid-Columbia ESU.

ODF55S: Stewardship Incentive Program (SIP)

Federal cost share program which reimburses Non-industrial Private Forest Landowners up to 75 percent of the cost of resource protection and enhancement projects.

ESU Application: Coastal Coho ESUs, Coastal Steelhead ESUs, Lower Columbia Steelhead ESU, Upper Willamette Steelhead ESU, Mid-Columbia ESU.

ODF 56S: Landowner Stewardship Award

The Landowner Stewardship Award is a cooperative recognition by ODF and ODFW to forest landowners to recognize the values and contributions made by them to the stewardship of fish and wildlife.

ESU Application: Coastal Coho ESUs, Coastal Steelhead ESUs, Lower Columbia Steelhead ESU, Upper Willamette Steelhead ESU, Mid-Columbia ESU.

ODF57S: Enhancement of ODF Monitoring Program

Enhancement of elements of ODF monitoring program to focus on key National Marine Fisheries Service issues.

ESU Application: Coastal Coho ESUs, Coastal Steelhead ESUs, Lower Columbia Steelhead ESU, Upper Willamette Steelhead ESU, Mid-Columbia ESU.

ODF58S: Liability Limits for Fish Enhancement Projects

The concept of this action is to propose legislative action which would limit liability for landowners completing habitat enhancement projects following guidelines established by ODFW and ODF (May 1995 publication).

ESU Application: Coastal Coho ESUs, Coastal Steelhead ESUs, Lower Columbia Steelhead ESU, Upper Willamette Steelhead ESU, Mid-Columbia ESU.

ODF59S: Integrated Forest Assessment

Develop a Geographic Information System (GIS) hydrological layer for the range of coastal coho and steelhead. This would make information available to support regulatory and voluntary program implementation. This proposal will support watershed assessments to principally identify and correct road related risks and address other watershed problems. The assessments will be flexible and will be developed on an ad hoc and watershed specific basis.

ESU Application: Coastal Coho ESUs, Coastal Steelhead ESUs, Lower Columbia Steelhead ESU, Upper Willamette Steelhead ESU, Mid-Columbia ESU.

ODF60S: Additional Forest Products Harvest Tax (HB 3700)

Funding mechanism to provide money and technical assistance to forest landowners and others for watershed enhancement activities.

ESU Application: Coastal Coho ESUs, Coastal Steelhead ESUs, Lower Columbia Steelhead ESU, Upper Willamette Steelhead ESU, Mid-Columbia ESU.

ODF61S: Analysis of "Rack" Concept for Debris Flows

OFIC members will conduct surveys to determine the feasibility and value of retaining trees along small type N streams with a high probability of debris flow in a "rack" just above the confluence with a Type F stream. The rack would extend from the RMA along the Type F stream up the Type N stream some distance for the purpose of retaining trees that have a high likelihood of delivery to the Type F stream.

ESU Application: Coastal Coho ESUs, Coastal Steelhead ESUs, Lower Columbia Steelhead ESU, Upper Willamette Steelhead ESU, Mid-Columbia ESU.

ODF62S: Voluntary No-Harvest Riparian Management Areas

Establishes a system to report and track, on a site specific basis, when landowners voluntarily take the opportunity to retain no-harvest RMAs.

ESU Application: Coastal Coho ESUs, Coastal Steelhead ESUs, Lower Columbia Steelhead ESU, Upper Willamette Steelhead ESU, Mid-Columbia ESU.

Oregon Department Of Fish And Wildlife

IA. Population Abundance Goals

ODFW IA1S: Establish Population Health Goals for Wild Steelhead

Work with Tribal co-managers (as appropriate for the geographic area) and NMFS to develop goals for adult escapement or other measures of wild steelhead population health for a representative sample of populations in each ESU. Measured population health in comparison with the goals will be used to determine progress toward restoration in each ESU and to make adjustments in harvest management, hatchery programs, and habitat protection/restoration.

IB. Inventory and Monitoring

ODFW IB1S: Assess Adult Escapement and Juvenile Production of Wild Steelhead

Collect critical information on the status and distribution of wild adult escapement and juvenile steelhead production on federal, non-federal and private lands with information summarized and presented using GIS techniques. At a minimum, monitor representative populations in each ESU to assess the abundance trends and status relative to listing or delisting criteria.

ODFW IB2S: Inventory and Monitor Wild Steelhead Habitat and Distribution

Provide information base for protection and restoration of steelhead spawning and rearing habitat through inventory of habitat quality and distribution, inventory of steelhead population distribution, and through determination of steelhead production capacity. Seek to improve criteria for describing good steelhead habitat and expand and refine inventories of steelhead habitat through the Habitat Inventory Project and contract-funded surveys (also see Oregon Department of Forestry measures ODF 4S and ODF 24S).

ODFW IB3: Habitat Restoration Evaluation

Evaluate representative restoration projects to quantify the effectiveness of techniques used and to determine appropriate restoration strategies for use in specific situations. Review results of ongoing evaluations of habitat restoration projects conducted by the USFS and other entities. This will provide meaningful feedback to assist in design and technique selection for subsequent projects.

ODFW IB4: Inventory Artificial Barriers

Complete an inventory of artificial structures which serve as barriers to fish passage. ODFW will conduct inventories of fish passage barriers, including road culverts, tide gates, diversion dams, and other artificial features that may block migration. ODFW will maintain a database of fish passage problem structures.

ID. Volunteers

ODFW ID1: Use of Volunteers

Expand emphasis and scope of volunteers to help implement salmon and steelhead restoration actions such as restoring habitat, collecting wild broodstock, outplanting juveniles from wild broodstock, placing hatchery salmon carcasses in streams, conducting surveys of habitat and fish abundance, and monitoring compliance with existing rules. Restoration activities will benefit significantly from assistance by existing volunteer programs (*e.g.* STEP) and new voluntary efforts from landowners, sporting and conservation clubs, watershed councils, and other cooperating groups.

III. Harvest Management

IIIA. Protection of Wild Fish

ODFW IIIA2S: Manage Steelhead Fisheries to Minimize Impact on Wild Steelhead

Manage Oregon inside estuary and river salmon/steelhead fisheries to minimize impact on wild steelhead returning to spawn. Continue to apply restrictive "special area" and "marked-only" steelhead fisheries using gear, location and time restrictions to limit impacts on wild steelhead and continue to advise anglers on handling and releasing wild steelhead during selective fisheries. Work with Tribal and neighbor-state co-managers through existing forums and processes to make any needed adjustments in Columbia River fisheries.

ODFW IIIA3: Manage Trout Fisheries to Reduce Ecological Interactions and Mortality on Juvenile Salmonids

Continue to maintain and geographically expand recent changes in trout management to reduce ecological interactions and harvest related mortality on juvenile salmonids (ODFW estimates that only 8% of Oregon's wild steelhead populations have any trout now stocked in their habitats). With few exceptions, maintain and expand late May opening of trout season, year around closure to trout fishing in tributary streams that are important rearing areas for steelhead, "no hatchery trout stocking" approach in areas where steelhead rear, and angler-education efforts on the rationale for restrictive trout stocking and angling regulations

IIIB. Selective Fisheries on Hatchery Fish

ODFW IIIB1S - Maintain Selective Harvest Opportunities on Hatchery Steelhead

Maintain selective sport harvest opportunities primarily by continuing to externally mark 100% of all hatchery steelhead smolts and continuing to require release of all unmarked steelhead (except in a few areas where hatchery steelhead are rare or absent and wild populations are robust enough to sustain a low level of harvest). Stock or acclimate smolts to river reaches or tributaries below wild spawning areas in some cases to seek segregation of hatchery fish from wild fish and a more selective harvest on hatchery fish. Recycle hatchery adults (haul adults back below hatcheries and traps) in appropriate cases to increase selective harvest.

IIIC. Technical Information and Monitoring

ODFW IIIC2S: Evaluate Hook and Release Mortality on Wild Steelhead

Monitor and assess studies done elsewhere and if they raise new concerns regarding catch and release mortality, develop proposals to seek funding (current information suggests hooking mortality amounts to only 0.5% B3.0% of each wild population where catch and release fishing is allowed). Consider possible needs to conduct studies by run type (summer or winter) and gear type and size (bait, artificial lures, flies, etc.) and coordinate efforts with CDFG, WDFW, and IDFG to increase efficiency of studies.

ODFW IIIC3S: Assess Marine Survival of Wild Steelhead

Continue and expand smolt trapping operations associated with adult return sampling in the same watershed to provide more accurate assessment of ocean conditions and marine survival of smolts to adults in selected Oregon index streams. These estimates will help separate out changes in freshwater survival from changes in marine survival and lead to an improved ability to assess effects of changes in freshwater habitat and fish management practices.

IIID. Enforcement

ODFW IIID1S: Emphasize Wild Steelhead Restoration in Annual Cooperative Enforcement

Planning Process with Oregon State Police

ODFW and the Fish and Wildlife Division of the Oregon State Police will continue to annually conduct a joint Cooperative Enforcement Planning (CEP) process at the district level to coordinate fishery monitoring and sampling activities and to establish enforcement priorities. An area of growing emphasis will be making certain that existing laws protecting fish during activities associated with resource extraction (logging, road construction, mining, grazing, etc.) are being followed.

IV. Habitat

IVA. Protection

ODFW IVA1: Provide Technical Assistance to Regulatory Agencies for Habitat Protection

Promote and assist with increased habitat protection on private land and land and water administered by other agencies by working with other state agencies and local governments that have regulatory authority over activities that affect salmon, steelhead, and cutthroat trout habitat. Do so through technical assistance; data sharing; review and comment on rule making, plans, permits and NEPA documents; and direct participation in interagency planning efforts. Continue to provide other agencies information on violations of habitat protection regulations detected during normal ODFW fish management and research activities.

ODFW IVA3: Apply for Additional Instream Water Rights

Obtain funding and staff necessary to collect flow requirement information and prepare applications for new ISWRs during the 1997B99 biennium. Increased staff requested in other actions may also be used to increase survey activity to identify instream flow needs and monitor or spot-check for compliance with ISWRs in priority areas for steelhead and other salmonids, and work with partners to increase flow protection.

ODFW IVA5: Prevent Large Wood Removal

Work with other cooperating Oregon Plan partners to develop and promote legislative concepts to prohibit the removal of large wood from streams and estuaries that is providing salmonid habitat value. Work with agencies and landowners to promote alternatives to simple removal, such as moving "problem" wood to another location where it will still benefit salmonids, and concepts that provide economic incentives for leaving large wood in streams and estuaries.

ODFW IVA6: Promote and Assist Voluntary Habitat Protection Actions

Provide technical assistance to private landowners, watershed councils, and other cooperators to promote and guide protection of high priority salmon, steelhead, and cutthroat trout habitat areas on forest, agriculture and

other lands. Without specific authority for habitat protection, ODFW's role is one of encouragement through cooperative efforts and technical assistance. As the primary agency with expertise in this area, this one of ODFW's primary roles in the initiative.

ODFW IVA7: Landowner Stewardship Award

Continue the joint ODFW and ODF "Fish and Wildlife Steward Award for Forest Lands" program and work with other state agencies to expand this program to agricultural landowners, miners, county and city planning departments, water users, and others who can and do voluntarily accomplish more for salmonid habitat protection and restoration than required by law.

ODFW IVA8: Identify Instream Flow Priorities

Identify streams where quantity of flow is limiting steelhead production and establish priorities for obtaining new Instream Water Rights (IWR). Also identify and prioritize the areas where steelhead habitat is most dependent on restoration of streamflows and establish a schedule for annual incremental restoration of flows over time as targets for WRD and ODFW streamflow restoration measures.

IVB. Restoration

ODFW IVB2: Promote Habitat Restoration

Promote, support, and conduct habitat restoration and guide efforts to achieve maximal efficiency and effectiveness with the resources available. Actively work with landowners, cooperators and agencies to promote habitat restoration and other actions to restore watershed functions, and also support and conduct some restoration projects directly. As the agency with the greatest expertise in habitat restoration, but without direct statutory authority over land management, ODFW's primary role will be as a technical resource to various Oregon Plan partners.

ODFW IVB3: Promote Use of Beavers to Restore Salmonid Habitat

Promote the use of beaver to restore salmonid habitat by providing technical assistance and information to landowners and local agencies (beaver dams provide critically needed habitat for juvenile salmonids). ODFW will use a cooperative approach with land owners, recommend beaver control only in cases of specific damage, and will work with the BLM and USFS to identify locations on federal lands where salmonid habitat can benefit from transplanting "problem" beavers from other lands.

ODFW IVB4: Use Hatchery Carcasses to Increase Wild Salmonid Production

Pursue landowner cooperation, DEQ permits and labor to restore benefits to juvenile salmonid production through placement of hatchery salmon carcasses in priority stream reaches until restored runs can contribute this function naturally. Salmonid production has been shown to benefit directly from food and nutrients derived from adult salmonid carcasses. Carcass placement will be considered only in streams that are not water quality limited by excessive nutrients and the program will be treated as an experimental approach with careful monitoring.

ODFW IVB6: Fish Habitat Improvement Tax Credit Program

Provide effective incentive for developers, cities, and private landowners to enhance and restore salmon habitat by re-authorizing ODFW's Fish Habitat Improvement Tax Credit Program, which offers financial incentives for actions by private landowners who improve habitat for fish. We will promote reauthorization of the program and encourage landowners not currently participating to become involved.

IVC. Barriers and Screens

ODFW IVC1: Cooperative Removal of Barriers

Pursue removal of artificial fish passage barriers or the establishment of adequate fish passage at these

barriers, including those at ODFW fish hatcheries. Promote installation of passage capability cooperatively, but also work with OSP to identify where enforcement approaches are needed. Work toward development of additional non-regulatory incentives to encourage compliance with passage requirements.

ODFW IVC2: Screen Diversions Less Than 30 cfs

Continue using Oregon's Fish Screening Cost Share Program that started in 1991 to screen water diversions less than 30 cfs to prevent entrainment of salmonids. The cost share program is screening more than 75 small diversions per year to protect fish, and most screens eligible for cost share could be installed by 2007 assuming that water users continue to volunteer for the program. Funding from the WRD Water Development Loan Fund and GWEB may be available to accelerate the installation of all the needed screens.

ODFW IVC4: Screening of Water Diversions Greater Than 30 Cfs

ODFW and OSP will cooperatively continue to identify and work with water users to encourage screening compliance. State law requires screening with all costs paid by water users for diversions greater than 30 cfs.

ODFW IVC5: Enhancing Compliance with Fish Screening Statutes

Diverters are legally required to provide necessary maintenance of fish screening devices on their diversions. ODFW will provide easy-to-use maintenance manuals, work cooperatively with water users and their organizations to educate the community regarding legal requirements, and continue development of devices with minimal maintenance requirements. Compliance will be checked through inventories of the condition of screening devices and interviews with landowners. If these measures fail, individual enforcement actions will be undertaken with other state and federal agencies.

ODFW IVC6: Enhancing Compliance with Fish Passage Statutes

The Oregon Plan and associated public recognition of passage and watershed restoration issues have heightened support for habitat restoration. Financial assistance to landowners with existing obstructions to fish passage is needed in order to facilitate voluntary compliance with statutory requirements in priority locations. Landowners are counseled about possible sources of funding which may be of use to them. Individual enforcement actions may be undertaken as necessary.

V. Outreach

ODFW VA1: Conduct an Outreach Program

Prepare and distribute information and materials to promote participation in habitat restoration and other Oregon Plan activities, and provide technical guidance for landowners and watershed councils on how to conduct various kinds of restoration. Continue current programs, and expand them as funding can be found, to inform a broad spectrum of Oregonians on how human activities can fit into the landscape without excessive impact on fish and wildlife if activities are done in "fish and wildlife friendly" ways.

Oregon Department of Transportation

ODOT1: Salmon Recovery Program Manager

Permanent, full time employee to implement, monitor, and document the ODOT Salmon Recovery Program.

ODOT2: Culvert Inventory, Assessment, and Remediation

ODOT, in conjunction with ODFW, is inventorying, prioritizing and developing remediation plans for culverts that do not provide fish passage.

ODOT3: Resource Management Plans

ODOT will develop maps, by roads, that inventory resources along the roads. These maps will include management strategies for the minimizing impacts to the resources.

ODOT4: Participation in Watershed Councils

ODOT district managers will participate in watershed council meetings and watershed planning.

ODOT 6: Environmentally Sensitive Design

ODOT will integrate environment components into project designs.

ODOT7: Storage and Disposal Plan for Woody Debris

Develop a storage and disposal plan for large woody debris materials collected following storm events and during project construction.

ODOT8: Statewide Erosion Control Handbook

Develop a statewide erosion control handbook.

ODOT12: Education

Increase awareness of fish issues through a variety of training and educational efforts.

ODOT15: Habitat for Fish in Wetland Mitigation

Include habitat for fish in wetland mitigation in project design as appropriate.

ODOT19: Mitigation Banking

Develop a credit/debit banking system for wetland mitigation/fish enhancement.

ODOT20: Compliance Audit

Develop and implement a compliance audit strategy for ODOT 1200 CA construction permits.

Oregon Marine Board

OMB1: Increase Number of Streams Adopted through Adopt-A-River Program.

Work with SOLV to increase efforts to gain adoption of stream and rivers, particularly, source and recovery reaches.

OMB2: Increase Number of Boat Waste Pump-Outs and Dump Stations.

Implement the existing Vessel Waste Disposal Plan using federal Clean Vessel Act funds.

OMB3: Increase Enforcement of Outfitter/Guide Laws.

Cooperate with county sheriffs to enforce laws for fishing guide operations.

OMB4: Increase Marine Law Enforcement Efforts.

Work with county sheriffs to reduce boating law violations on waterways with sensitive salmonid species.

Water Resources Department

Phase 1 Measures

Phase 1 measures are those that can be implemented with currently approved budget.

WRD S-1: Public Interest Review to Protect Salmonids

WRD is providing ODFW District Offices with the WRD initial review and water right application map for all surface water, hydraulically connected ground water and reservoir applications. ODFW is reviewing the information and determining if an application would negatively impacts fish, and whether the permit can be conditioned or should be denied. As a result, WRD is determining if a proposed use would be detrimental to steelhead. If so, the permit will be denied, or adequately conditioned, unless clearly overriding public interest concerns demand otherwise. The Water Resources Commission has adopted three rules in OAR Chapter 690, Division 33 to ensure that new water right applications would not negatively impact the habitat of sensitive, threatened or endangered fish. These rules protect the habitat of fish, require barrier-free fish passage and fish screening where fish are present.

WRD S-2: Water Right Transfer Review for Fish Concerns

Transfers (changing the point of diversion or use of the original right) only undergo an injury review, rather than a public interest review. WRD is directly soliciting input from ODFW district biologist in an effort to ensure that no water right transfers will adversely impact instream water rights. WRD is also protecting fisheries by ensuring that all new points of diversion will be appropriately screened.

WRD S-4: Issuance of Instream Water Rights (ISWRs)

WRD has certificated almost all of the ISWRs requested by ODFW. The remaining pending applications are the subject of protests filed by parties opposed to the rights. WRD intends to resolve the majority of these protests in a manner preserving essential flows for fish recovery.

WRD S-6: Identify Unmet Instream Flow Needs

WRD will provide ODFW with streamflow data necessary for ODFW to prioritize streamflow restoration activities. The quantification of ISWR deficits is an important first step in developing priorities for restoring streamflows for fish recovery. WRD will complete an evaluation of water availability to determine the months during which the ISWRs are not being met.

WRD S-7: Coordinated Enforcement Plan

WRD and OSP have entered into an enforcement plan that establishes a formal prioritization and scope of services OSP officers will provide to WRD field programs. This integration of OSP into WRD's programs will enhance and coordinate current efforts.

WRD S-8: Increased Distribution and Enforcement

WRD has increased compliance monitoring in priority areas by increasing the number of field personnel and the number of field offices. In 1998, WRD will develop an enforcement plan in consultation with ODFW, DEQ, and OSP to increase distribution of water and enforcement in priority areas where salmonid habitat is most dependent on restoration of streamflows.

WRD S-9: Installation of Monitoring Stations

Measurement of streamflow is critical for monitoring and protecting instream water rights and salmon habitat. Staff gauges provide a simple way to monitor flows. WRD will identify the location and type, cost and number of gauging stations necessary to adequately monitor priority areas identified by ODFW. WRD will develop funding proposals for the installation, operation and maintenance of the sites.

WRD S-10: Inventory Water Diversions

WRD will digitize water right maps and inventory water diversions. Effective compliance monitoring by watermasters requires an accurate inventory of all diversions. In the past two years approximately 2,500 miles of streams have been inventoried. Digitizing water rights maps will accelerate the rate at which

watermasters can create maps for water use management. Digitized water right maps locating all permitted water diversions will be digitized and available in electronic format to the public.

WRD S-11: Dissemination of Streamflow Data

WRD has developed a plan to ensure that streamflow measurement information is readily available to appropriate federal, state and local entities, as well as the general public, so that wise resource management decisions may be made.

WRD S-12: Improving Efficiency and Prohibiting Waste

WRD will develop regional efficiency standards with ODA and local basin groups. Eliminating inefficient uses of water may result in more water for instream demands. Interdisciplinary working groups are being formed in key basins needing streamflow improvements in an effort to develop basin-specific efficiency standards. WRD will use these standards to promote voluntary conservation efforts and then as a basis for identifying waste in connection with compliance monitoring.

WRD S-13: Agricultural Water Conservation Program

WRD will evaluate and prioritize where the preparation of water management and conservation plans by irrigation water users may yield increased streamflows, and will initiate a cooperative program with water users in those areas to develop water conservation plans.

WRD S-14: Municipal Water Management Program

Virtually all communities seeking new water rights or extensions are required to develop and implement water management plans. After preparing a water management plan, some cities have concluded the water conservation is the best approach to meeting expected water demand. Avoidance of new diversions may leave more water instream for salmon. WRD will hold annual workshops for municipalities related to the preparation of water management plans. Although, WRD only has the authority to require plans from cities requesting new rights or extension, WRD staff will also engage other key municipalities in the planning process in a voluntary effort to support the salmon recovery effort.

WRD S-15: Instream Transfers and Leases

In an effort to augment instream flows, WRD will facilitate efforts to voluntarily transfer, purchase, lease or donate existing out-of-stream water rights to instream uses. WRD will pursue these agreements according to the prioritization established by ODFW. WRD Regional Managers and Watermasters will provide information and work with water right holders to encourage water right leasing to instream. WRD will continue to pursue relationships with entities such as the Oregon Water Trust to protect and enhance instream flows.

WRD S-16: Water Right Forfeiture

WRD will use water right forfeiture as a tool to protect and restore streamflows. A water right can be forfeited if there is documented non-use of the right for five continuous years. This results in the unused water being put back into the system for appropriation. However, cancellation of these unused rights will not result in increased streamflows. If water rights in danger of being forfeited are leased for instream use, instream flows can be enhanced for salmon while allowing the holder of the right to avoid forfeiture.

WRD S-17: Public Outreach and Information

Effective public outreach and information are critical to the success of all of the actions and measures outlined in this restoration plan. In 1997, WRD introduced revised and enhanced on-line water right information and services to the public and produced an educational brochure for livestock management in riparian areas and use of off-stream water supplies. In 1998, WRD will develop conservationist-of-the-year awards and develop education materials for the public on instream leasing, allocation of conserved water, and the agricultural and municipal conservation programs.

WRD S-19: Off-stream Storage

WRD field staff will continue to provide technical assistance to locate and encourage the development of multi-purpose off-stream storage facilities, built in swales, and other areas where a natural water body does not exist, and which will provide instream flow restoration component.

WRD S-20: Serious Water Management Problems Areas

WRD will evaluate requiring consumptive water right holders in specific subbasins or stream reaches to measure and record their water usage as a tool to increase streamflows. The Water Resources Commission has the authority to require water users in designated areas to measure and report annual water use. Under the designation, measurement and reporting can be required for the use of water under all water rights, even if this was not a condition of the original water right. By requiring measurement and reporting, water users' consciousness about the way water is used is raised, which may lead to water being used more efficiently and may ultimately result in increased instream flows for salmon.

WRD S-21: Peak Flow Protection

WRD and ODFW have jointly developed a peak flow protection policy to ensure that peak flows are available for triggering biological responses and salmonid access to and from winter spawning grounds. Additionally, a Peak Flow Working Group has been established. The existing policy may be revised as this group develops new information and recommendations.

WRD S-22: Modification or Replacement of Diversion Dams Which Interfere With Fish Passage

WRD will work with DSL, ODFW, ODA, DEQ, OSP, GWEB, local watershed councils and other affected agencies to clarify all agencies' jurisdiction over push-up dams, inventory existing dams, and work with property owners to identify alternatives to those push-up dams that interfere with fish passage. Funding sources for implementing those alternatives will also be identified and pursued.

WRD S-25: Compliance Rate Monitoring

Beginning in 1998, WRD will monitor the rate of compliance with state water laws. Historically, the Department has monitored the number of regulatory contacts field staff have with water right users. However, since regulatory contacts involve distributing water to senior water right holders based on water availability, many regulatory contacts have involved shutting off junior water rights which were being used consistent with state law. In 1998, when watermasters take regulatory actions they will assess whether the water use was being used in substantial compliance with state law.

WRD S-29: Amend Current Licenses to Improve Fish Passage

With input from ODFW and DEQ, WRD will identify projects where changes in fish passage and minimum flows would benefit steelhead runs and work to establish a voluntary program wherein project owners may amend the terms and conditions in their state licenses.

Phase 2 Measures

Phase 2 measures are those that will be completed after June 30, 1999, or which require additional resources to implement.

WRD S-9: Installation of Monitoring Stations

Funding for unmet gauging station needs which were identified in the Phase 1 part of this will be pursued.