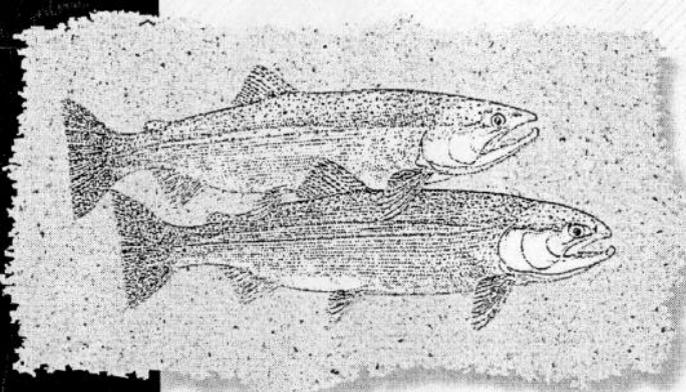
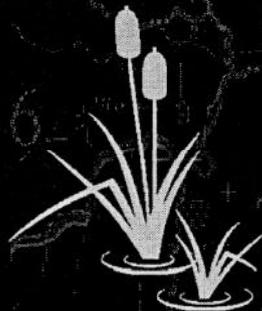


Supplement I Steelhead



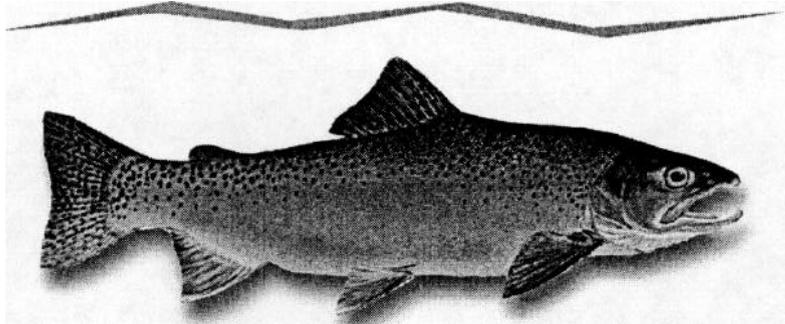
The **Oregon** **Plan** *for Salmon* *and Watersheds*

*Restoring an Oregon
legacy through
cooperative efforts*

Executive Summary

February 1998

The Oregon Plan for Salmon and Watersheds
Supplement I -- Steelhead



Oncorhynchus mykiss
Steelhead Trout

Mission: *to restore our native fish populations-and the aquatic systems that support them-to productive and sustainable levels that will provide substantial environmental, cultural, and economic benefits.*

Components of the Oregon Plan

The original “Oregon Plan” evolved from two essential *components*:

The Healthy Streams Partnership:

This is a cooperative effort among landowners, government, and interest groups aimed at improving and preserving water quality in hundreds of “Water Quality limited Streams” in Oregon.

Fish Restoration:

The initial fish restoration plan, “The Coastal Salmon Restoration Initiative, is now underway working to recover coastal coho salmon to sustainable levels. The plan guides habitat restoration efforts in the northern, non-listed coho populations and serves as a federally recognized restoration plan for the southern coastal coho, which are listed as “threatened” under the Endangered Species Act.

This “Steelhead Supplement” represents a new component of the plan. It is an attempt to head off continued declines of steelhead runs in coastal basins, the lower Columbia and Snake Rivers, Klamath Mountain regions and the Upper Willamette River Basin.

This supplement addresses fish restoration within the context of watershed health. By incorporating both fish restoration and water quality improvement measures, the Steelhead Supplement demonstrates how the Oregon Plan achieves long-term watershed health.

Overview

Oregon's Approach

In contrast to endangered species recovery and environmental protection plans that rely primarily on regulatory approaches, this plan represents a new way of restoring natural systems. . . the "Oregon Approach."

This approach meshes scientifically sound actions with local watershed-based public support. It relies on teamwork among the various levels of government and is dependent on monitoring and accountability for results. Strong enforcement of existing laws and regulations is a foundation upon which voluntary and cooperative actions can be built. We believe that this is the only approach-one that will generate the support and commitment across all sectors, from landowners and industry to government agencies-to restore fish and their natural systems.

This plan will require an unprecedented level of cooperation and coordination. If every Oregonian makes an individual contribution to this effort, restoration of Oregon's watersheds will not be too great for any one group to bear.

What is The Oregon Plan for Salmon and Watersheds?

The "Oregon Plan" is designed to restore the healthy function of Oregon's natural aquatic systems. It represents commitments on behalf of government, interest groups, and private citizens from all sectors of the state. While the plan originated as an effort to address declining populations of coastal coho salmon, in the two years since its initiation the plan has engaged new participants, addressed new fish species, attained regional-perhaps national-significance and promoted unique approaches to natural resource issues on a statewide basis.

This Steelhead Supplement, like other components of the plan, relies on four fundamental approaches to accomplish the goal of securing and protecting healthy fish habitat.

Community-based Action: The plan recognizes that efforts to conserve and restore habitat must be planned by communities and landowners with local knowledge of problems and ownership in solutions. Watershed councils, soil and water conservation districts, and other grassroots efforts are vehicles for getting the work done. Government will work to provide the technical support and information needed for communities to prepare and implement local actions.

Government Coordination: Many state and federal agencies administer laws, policies, and management programs that have an impact on fish habitat. These agencies are responsible for fishery harvest management, production of hatchery fish, water quality, water quantity, and a wide variety of habitat protection, alteration, and restoration activities. Under this plan, government agencies that impact aquatic systems will coordinate programs in a manner that is consistent with conservation and restoration efforts.

Monitoring and Accountability: The monitoring program combines an annual appraisal of work accomplished and results achieved. Government agencies use workplans to meet their goals as promised. Biological and physical sampling will be conducted to determine whether salmon habitats and populations respond as expected to conservation and restoration efforts.

Improvements Over Time: The plan includes an explicit process for learning from experience, discussing alternative approaches, and making changes to current programs. The plan emphasizes improving compliance with existing environmental laws rather than arbitrarily establishing new protective laws. Compliance will be achieved through a combination of education and prioritized enforcement of laws that are expected to yield the greatest benefits for fish.

In summary, the Oregon Salmon and Watershed Plan involves a statewide, coordinated effort by local citizens to prepare and implement actions that maintain and improve the health of their watersheds. With the assistance of government and private partnerships, these efforts will be monitored and improved over time.

The Evolution of the Steelhead Supplement

This effort began in 1995 to address restoration of the coastal coho salmon. In April 1997, the Oregon Legislature incorporated other, related efforts into one overarching framework: "The Oregon Plan." The plan includes cooperative efforts to improve water quality in Oregon's streams and address declining fish populations in various regions of the state. The plan includes a number of legislatively appointed panels, agency action teams, private-public partnerships, and-most importantly-relies on thousands of daily actions by Oregonians to benefit their watersheds.

Following completion of the initial Oregon Plan, the State of Oregon began to develop a supplement to address declining steelhead populations. Currently, Oregon has three steelhead populations considered for listing under the Endangered Species Act (ESA).

In October 1997, the Oregon Plan provided draft state, federal, and local measures for public and peer review. These measures served as management changes, funding commitments, or special efforts planned on behalf of government agencies to help save fish. A series of public meetings in the Willamette Valley and Astoria provided an opportunity for interested public to review the draft measures. Agency staff continued to work with the National Marine Fisheries Service (NMFS) and other partners to strengthen these measures. In December 1997, a "Legislative Review Draft" was provided to citizens, plan partners, the Oregon Legislature, and NMFS for review. In January the Joint Legislative Committee on Salmon and Stream Enhancement held a public hearing to gather comments on the draft.

While some of the measures will require funding before they can be initiated, implementation is not contingent on the NMFS decision. The measures in this plan are the work of a broad range of partners. They represent secure, long-term commitments to improve the health of Oregon's watersheds.

Timelines

October 15, 1997

Draft measures were released for review

December 18, 1997

Legislative Review Draft of Steelhead Supplement provided to NMFS, the Legislature and public

January 13, 1998

Public hearing provided by the joint Legislative Committee on Salmon and Stream Enhancement

February 10, 1998

Final Steelhead Supplement completed, NMFS decides on three proposed ESA listings of steelhead in Oregon

Executive Summary

Updates

In December 1997, a "Legislative Review Draft" of the Steelhead Supplement was provided to the legislature, partners, NMFS, and the public. In January, the Joint Legislative Committee on Salmon and Stream Enhancement conducted a public hearing on the Steelhead Supplement.

Since that public hearing, several important revisions were made:

*The Oregon Fish and Wildlife Commission adopted additional harvest restrictions for the Klamath Mountain Province (KMP)-one of the populations of steel head proposed for listing under the ESA.

*The Department of fish and Wildlife agreed to consider additional changes to harvest and hatchery programs statewide.

*Some agency measures were rewritten to improve clarity.

*More detailed information regarding the comprehensive monitoring program was provided.

*The State Legislative Emergency Board authorized \$2 million in funding for implementation of steelhead restoration measures.

Steelhead Supplement to the Oregon Plan

The Oregon Plan is a constantly evolving, adaptive process. New participants join the effort, governments and private partners identify new ways of doing business, and changes in management lead to improvements in habitat. Monitoring of results provides feedback so that measures or policies can be modified and improved.

This Steelhead Supplement represents another stage in the evolution of Oregon's restoration efforts. New issues. New measures. New regions. New partners. All relying on the same approach to cooperative, community-driven management. While this supplement addresses steelhead trout, it also demonstrates a movement in the Oregon Plan toward a statewide, watershed-based approach to habitat restoration and the protection of our natural systems.

Regional Importance and Efforts:

While coho salmon presented restoration needs in coastal basins, steelhead populations cover a multi-state area including Washington, Oregon, Idaho, and California. Current ESA listing proposals include 11 populations of steelhead in this region. Many of these populations are shared by more than one state. Oregon, Washington, and California have initiated a regional approach to restoration with complimentary steelhead plans. This regional approach enlists the support of government, landowners, industry, sovereign tribes, and interest groups representing natural resources issues in the entire Pacific Northwest.

New Partners:

The Oregon Plan initially included collaboration among state and federal agencies, local governments and interest groups that dealt with issues in coastal basins. By broadening the geographic scope of the Oregon Plan, the Steelhead Supplement has prompted new partners to join the effort.

Many restoration efforts are already underway in coastal basins. The Steelhead Supplement calls for new actions in additional basins. While the coastal areas of Oregon are largely rural, steelhead habitat includes major urban areas in the Willamette Valley and Lower Columbia River basin.

Broadened Measures:

Steelhead life cycle and geographic range include new areas not previously addressed by the Oregon Plan. Previous measures to address coho salmon dealt with a limited geographic area. Due to the presence of steelhead in the Lower Columbia and Willamette River Basins, partners are now adopting measures that will be implemented in many more parts of the state than before.

Watershed Health Efforts:

This supplement does not address the needs of steelhead to the exclusion of other fish. Instead, it reflects a watershed-based approach to fish restoration. The Oregon Plan recognizes that successful fish restoration can occur only if we identify and repair problems in the entire aquatic system. By working on a watershed level, measures that aim to restore habitat for one species will benefit many other species in the watershed-people included.

Restoring an Oregon Heritage

Restoration of Oregon's anadromous fish presents many challenges to Oregonians. Perhaps the greatest challenge is to discover how people and salmon can co-exist in the future. This challenge has no clear endpoint, no time when "success" can be declared forever. Some measure of success, however, may be reached if Oregon achieves a fundamental shift toward resource management philosophies and practices that support conservation and restoration of natural systems in a way that is more favorable to the fish. After all, a basic tenet of the Oregon Plan is that all Oregon citizens share responsibility for the changes to the natural systems that damage watershed health and, likewise, share responsibility for restoration. For the long term, the challenge is to resolve the complex, conflicting issues of human population growth and competition for natural resources. This must be done in a manner that meets the needs of steelhead, other fish, watersheds, and people.

What's an ESU?

An "Evolutionarily Significant Unit" is a population of fish that is important because it represents a vital step in the evolution of the species.

Reason for this Supplement

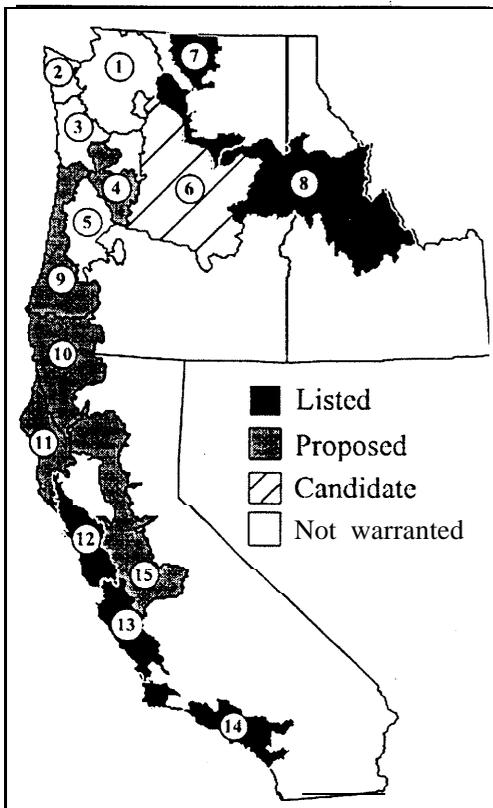
This supplement responds to concerns about the declining status of steelhead populations in particular, and all fish species in general. Native populations of salmon, steelhead, and trout have declined, some dramatically, in Oregon during the century and a half since the region has been exposed to industrial-scale development.

The Oregon Plan is an unprecedented effort to improve the health of Oregon's fish species, streams, watersheds, and ultimately the quality of life for all Oregonians. No single action by government or Oregon citizens will restore salmon and trout to a viable role in Oregon's culture and economy, but a cooperative effort, sustained over time, may succeed. This document presents additional planning and actions that supplement a process that has been underway since 1995. The intent of this supplement is to describe progress to date and to list activities that are either underway or needed to restore the vitality of steelhead and other trout populations in Oregon's river basins.

The National Marine Fisheries Service (NMFS) is currently considering proposals to list three groups of steelhead trout in Oregon as *threatened* under the federal Endangered Species Act. Oregon is hoping to retain state authority over management of Oregon's natural resources. The goal of the Oregon Plan is not merely to prevent the extinction of these fish, but to *restore* populations to levels that are considered *healthy*.

Roots of the Oregon Plan

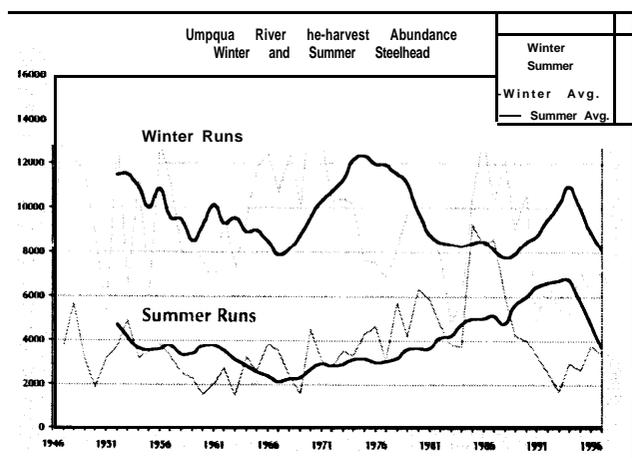
Governor John Kitzhaber announced the planning effort to conserve and restore Oregon's coastal salmon and steelhead in October 1995. One of his first steps was to establish a team approach for developing an action plan that would lead to restoring the health of coastal salmon and trout populations. Another early step was to require directors of key state agencies to meet with the Governor bi-weekly, reporting progress and resolving interagency obstacles.



Steelhead ESUs

The National Marine Fisheries Service is currently considering proposals to list steelhead in three ESUs in Oregon. Steelhead in the Lower Columbia (4), Coastal (9), and Klamath Mountain (10) areas are proposed for listing while the Mid-Columbia (6) remains a candidate for further action. The Snake River (8) populations were listed as "threatened" in August 1997.

Later, teams were assembled to address science, outreach and planning needs. As the initiative grew, new partners were added to the discussion and the action plan began to include measures focused on improving habitat and changing management practices. In September and October 1996, the Governor unveiled a draft recovery plan through meetings in coastal communities. After extensive peer review and public comments, the plan was updated and presented to the Oregon Legislature for further review. The Legislature approved the plan and provided funding for the key implementation elements and earmarked grant funding for restoration projects through the Governor's Watershed Enhancement Board (GWEB). The Legislature also established committees to provide oversight and review of the implementation of the plan's measures. In March 1997, the State submitted the final plan to the National Marine Fisheries Service. NMFS deferred listing the Northern ESU of coho. However, in the Southern ESU, coho were listed as "threatened" under the ESA.



Declining Populations

Steelhead populations in some parts of the state show a historic decline in returns while others seem to hold steady. This graph of steelhead counts at Winchester Dam on the North Umpqua River demonstrates how winter runs and summer runs can sometimes show dramatic differences. A six year average (dark line) shows erratic fluctuations for winter runs, while summer runs show only recent declines following years of increases.

Since that time, the State has acted on many of the commitments made in the plan. Workplans continue to guide state and federal agencies in acting on committed measures, and funding has provided new positions to implement the plan. The State will provide a first annual monitoring report in April 1998.

During this time, these same agencies and partners have also put together an expanded list of commitments that take recovery efforts to a statewide level.

Steelhead in Decline

The status of steelhead trout in Oregon is a complicated matter. While some estimates suggest trends toward decline, steelhead also demonstrate a high level of resiliency in the face of changing ocean conditions and habitat alterations. Their numbers fluctuate based on a wide range of factors and it is difficult to determine if they are in serious trouble, or merely in a temporary cycle of weak populations. While parties may disagree about the relative health of steelhead populations, the Oregon Plan recognizes a need to move ahead with measures aimed to stabilize and recover their habitat.

Sources of Risk to the Steelhead

Although it is relatively easy to identify the immediate concern-declining fish-it is difficult to pinpoint the exact causes of their decline.

Activities and processes that individually or collectively may contribute to the decline of fish populations are often referred to as "risk agents." These risk agents serve as broad categories of activities that may or *may not* result in detrimental impacts to the species. The Oregon Plan recognizes the following risk agents:

Harvest risk agents include all management activities pertinent to control of fishing-related mortality, including: ocean fisheries, in-river fisheries, direct harvest effects, indirect fishery effects, and effects on adults and juveniles.

Hatchery risk agents include all management activities pertinent to the use of artificial propagation, including decisions related to: broodstocks used, numbers stocked, locations where fish will be stocked, expansions or reductions in stocking programs, and criteria for smolt sizes.

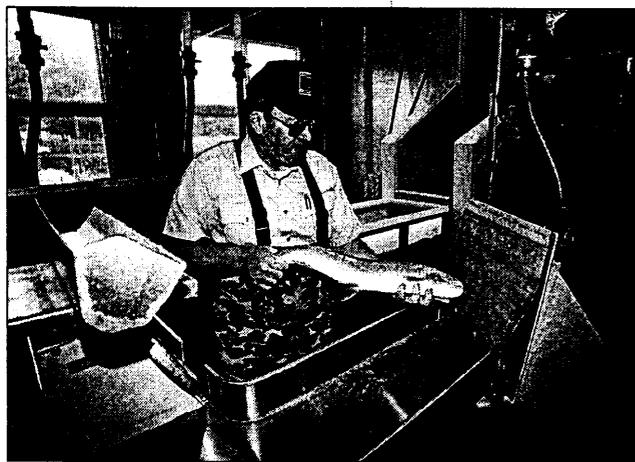
Habitat management risk agents include all management activities that influence the nature of freshwater landscapes in a way that will affect fish, including efforts to: conserve and improve the productive capacities of freshwater environments for salmonids, provide passage at culverts and dams, and screen withdrawals and diversions.

Other risk agents include the relative productivity of the ocean environment and predation by marine mammals and birds.

Factors for Decline

Associated with risk agents are the specific conditions that result in impacts to the fish. These definable conditions are known as “factors for decline.” While a risk agent only presents a potential for harmful impacts to fish, a “factor for decline” results in damage to fish populations.

The Steelhead Supplement uses factors for decline to organize agency measures in a way that matches specific impacts with an appropriate measure. By addressing the more focused factors for *decline* rather than the broad *risk agents*, plan measures have a greater likelihood of success.



Management Measures in Action

A biologist with the Oregon Department of Fish and Wildlife prepares to release a winter steelhead into a holding tank at a handling facility. Facilities like this help the Oregon Plan by separating wild stocks from hatchery stocks. Hatchery fish are sorted so that they do not interfere with the natural production of wild steelhead.

State and Federal Agency Measures

State and federal agency measures represent commitments by various agencies and their stakeholders to address the major identified factors for decline. By organizing agency measures under specific factors, the Steelhead Supplement illustrates how the measures relate to specific objectives designed to address these factors.

In an example of increasing state and federal coordination and cooperation, federal measures have been integrated along with those of state agencies under the various factors for decline. Together, state and federal agencies and their stakeholders have listed several hundred measures and actions to address factors for decline for steelhead and other fish species.

Federal agency participation includes the aquatic conservation strategy of the Northwest Forest Plan, a large-scale ecosystem management project on federal lands that should dramatically improve fish habitat, watershed stability, and water quality over time. In eastern Oregon, the Interior Columbia Basin

Ecosystem Management Project, currently in draft form, will provide the same large-scale, integrated, ecosystemic approach to land management on federal land. Additionally, federal agencies will provide support for monitoring, watershed council activities, and technical efforts such as watershed assessment and education.

Where possible, agencies have listed specific numerical objectives and timelines for achievement. In some cases, numerical objectives must be developed at the local level to be most effective. Agencies will work with stakeholders, watershed councils, soil and water conservation districts, and NMFS staff to develop the appropriate objectives and timelines.

Some of the most significant measures include:

Water Quality

The conservation actions underway to improve water quality for coho will also benefit steelhead as these actions are expanded into steelhead territory. Actions that improve water quality that are specifically geared to meet the needs of steelhead include :

- Analyze data on water quality at dams and negotiate changes in dam or hydropower operations;
- Assure that water quality standards will be met following relicensing, reauthorization or decommissioning of existing hydropower projects;
- Address non-point sources of water pollution, such as grazing, by improving compliance with Sections 303 and 401 of the Clean Water Act;
- Develop water quality standards for wetlands and nutrients;
- Use SB 1010 to work with landowners to develop water quality management plans that will be used to address water quality concerns in agricultural areas;
- Improve and expand water quality monitoring to better determine whether management practices are effectively meeting water quality standards.

Physical Habitat

Partners will expand activities within steelhead ESUs to include:

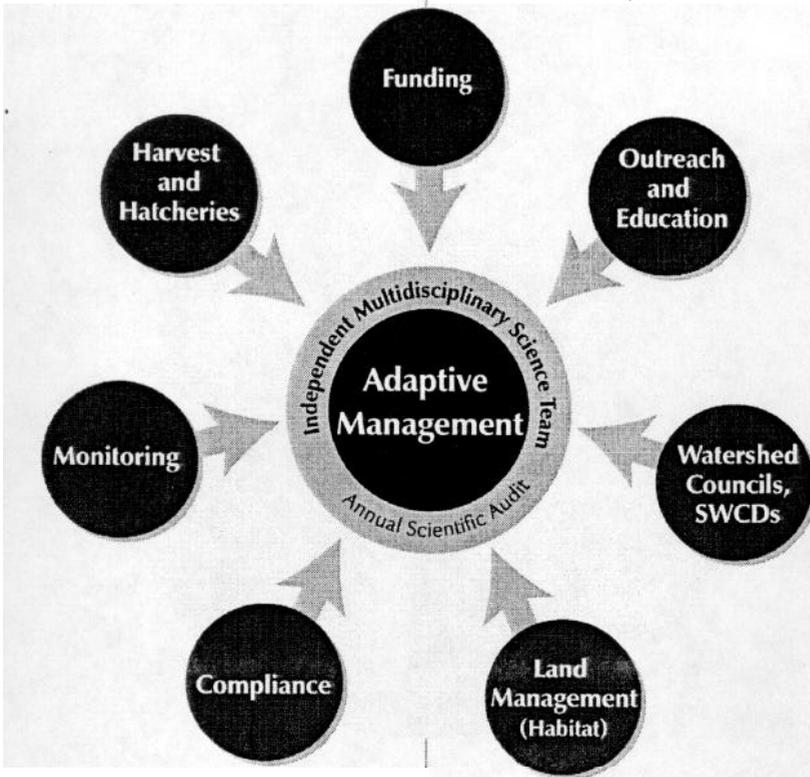
- Improve and increase inventories of steelhead habitat to guide protection and restoration efforts and provide a baseline for judging the effectiveness of restoration efforts;
- Protect and restore riparian areas, particularly through implementation of the new Statewide Planning Goal 5 rules that give local governments a basic riparian protection standard;
- Expand rules protecting estuaries, wetlands and their riparian buffers;
- Assess habitat risk to steelhead from road sedimentation and improve road systems;
- Increase compliance with environmental laws, including fill and removal laws, that affect steelhead habitat.

Water Quantity

Federal and state agencies propose taking one or more of the following steps to deal with water quantity problems that affect steelhead in the Lower Columbia and Snake River basins:

- Continue to secure instream water rights on steelhead, trout and salmon bearing streams;
- Use a public interest review process to assess impacts to fish when processing new applications for water use;

- Reduce municipal and irrigation water needs by promoting programs that improve delivery systems and put conserved water instream;
- Develop regional standards on efficient water use to identify and eliminate waste;



- Encourage conservation efforts among municipal and agricultural water users;
- Regulate flows to protect senior instream water rights;
- Modify diversion structures and fish screens for improved steelhead passage and/or safety.

Fish Management

The Oregon Department of Fish and Wildlife and the National Marine Fisheries Service have submitted several significant new measures to protect wild populations of steelhead. These include:

- 9 Maintain, and in some areas expand, catch-and-release regulations for wild steelhead. In areas where steelhead populations are currently strong, anglers will be allowed to take one fish per week and five fish per year. Partners will also support voluntary efforts to decrease poaching;

Plan Coordination

The many components of the Steelhead Supplement integrate to form a multi-layered approach to restoring natural systems.

- Change where and how many hatchery smolts are stocked and how many hatchery adults are spawning in the same stream segments as wild steelhead;
- Eliminate stocking of hatchery trout in Coastal Basin and Klamath Mountain Province streams. Severely restrict stocking of trout in other steelhead rearing areas. This action will lessen competition for food and space and reduce incidental sport catch of juvenile steelhead;
- Work to inform and guide changes in management that will reduce the adverse effects of exotic fish species on depressed native salmonids;
- Fund the marking of hatchery produced steelhead to allow selective fisheries where there is a high level of certainty that the fishery can occur with minimal harm to natural stocks;
- Expand the inventory and stock monitoring program that provides information about wild and hatchery steelhead populations.

Hydroelectric Projects and Large Storage Dams

Hydroelectric projects and large storage dams were not explicitly addressed in the initial Oregon Plan (*Coastal Coho Restoration Initiative*) because there are few such dams in coastal basins. With the expansion of the Oregon Plan into the Columbia and Snake River basins, federal and state agencies and dam operators have put forward project-specific conservation actions. Most of these measures will be evaluated and implemented at the time of project relicensing. For many

projects, relicensing will occur over the next ten years. These measures include:

- Increase flows in bypass reaches, including fish passage, rearing and holding areas, to improve water quality and increase fish habitat;
- Identify and address fish passage problems;
- Minimize flow fluctuations due to hydropower operations;
- Identify measures needed to lessen the changes dams cause in river beds, currents, channels and riparian vegetation;
- Coordinate state requests for water releases from federal reservoirs to help federal partners develop annual reservoir operation plans that meet fish and riparian needs.

In addition, the Bureau of Land Management, U.S. Fish and Wildlife Service, U.S. Forest Service, and NMFS will require that the needs of species of concern, including steelhead, be considered in the hydropower licensing and relicensing process of the Federal Energy Regulatory Commission (FERC). Their authority extends to instituting terms and conditions ranging from establishing minimum flows and channel maintenance flows, to requiring improved fish passage and habit restoration measures.

Measures by Cities, Counties, and Other Partners

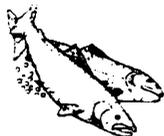
In addition to the commitments from state and federal agencies, many other partners are providing voluntary contributions to the Oregon Plan. Some of these key measures include:

- Provide funding to restore riparian habitat in urban streams;
- Exercise local administration for erosion control, storm water maintenance and other efforts to curb non-point source pollution;
- Improve coordination of cities and counties on land-use planning to prevent impacts to habitat;
- Restore wetland areas that serve as important food reservoirs and refuges for fish;
- Institute long-term water conservation programs and participate in regional water supply planning;
- Provide private funding contributions amounting to more than \$1 million per year for fish enhancement projects in the Clackamas, Sandy and Deschutes Rivers.

Watershed Councils

Oregon now has more than 70 watershed councils working with local soil and water conservation districts and landowners. These local groups play a key role in conducting basin assessments, determining limiting factors, and involving landowners in restoration actions. Some more established watershed councils are preparing action plans and monitoring programs

In the spring and winter, spawning steelhead deposit eggs in gravel nests. Unlike salmon, not all steelhead die after spawning.



Fry hatch in the spring and grow in the stream. They live in the stream for 1-3 years.



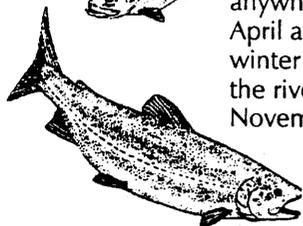
In the spring, smolts migrate downstream and then enter the Pacific Ocean.



After 1-3 years in the ocean, steelhead enter the rivers headed for the spawning areas.



Summer steelhead may enter freshwater anywhere between April and August while winter steelhead enter the rivers between November and March.



Steelhead Life Cycle

Steelhead have a complex and varied life cycle that depends on healthy habitat for their survival. The Oregon Plan aims to provide ways for Oregonians to restore and protect the valuable aquatic habitat necessary to sustain healthy fish populations.

while other councils are just now beginning to organize and assess the health of their watersheds.

The 1997 Oregon Legislature approved more than \$20 million in grant funds for watershed restoration. This grant funding is allocated by the Governor's Watershed Enhancement Board (GWEB) for use by groups engaged in watershed restoration. In July 1997, GWEB allocated \$5.5 million for restoration projects. Some of this funding was provided to watershed councils to provide for council support. In December, GWEB received spending authority to allocate an additional \$7 million for future projects.

Soil and Water Conservation Districts

Soil and Water Conservation Districts (SWCDs) play a substantive role in the local development and support of Oregon Plan efforts. Oregon currently has 45 SWCDs that work with the Oregon Department of Agriculture to focus on an assortment of natural resource issues ranging from soil erosion to water quality. SWCDs work closely with federal partners, particularly the Natural Resource Conservation Service, as well as with watershed councils to put local landowners in touch with information that will protect their soil and water resources. These groups play an important role in providing technical assistance to landowners that can impact and improve steelhead habitat.

Compliance with Environmental Laws

While management measures reflect agency practices that are beneficial to fish, it is still crucial that Oregonians who use or impact natural resources comply with the state's laws protecting those resources. The Steelhead Supplement recognizes compliance as a key factor in the long-term recovery of natural systems. Many agencies and partners engage in programs to gather reliable data on compliance with environmental laws.

For example, the Oregon Department of Forestry monitors the compliance rate for forest operations relating to the Forest Practices Act. Oregon State Police has been monitoring compliance with fish and wildlife laws for years and will be able to provide valuable assistance to agencies in designing these programs.

Initially these efforts will establish baselines of citizen compliance. Then, as data are accumulated over time, trends will begin to emerge that can serve to guide efforts to improve compliance.

By reviewing compliance behavior, the Oregon Plan can continue efforts that are most effective at achieving voluntary compliance. The Oregon Plan relies on several tools including education, incentives, and regulation to promote compliance with environmental laws.

Enforcement

To build on a working foundation of current law and regulation-and expand it using voluntary and cooperative efforts- the plan requires that agencies improve compliance with current regulations.

Voluntary compliance with environmental laws requires the right balance of education, enforcement action, and compliance monitoring. The Fish and Wildlife Division of the Oregon State Police supports habitat protection and environmental law enforcement in addition to enforcing hunting and fishing laws.

Outreach Efforts

Display: The Outreach Team created a display focused on watershed health for the Oregon State Fair in the summer of 1997. A survey taken during the fair indicated 59 percent of the 732 respondents would like to volunteer to support watershed health.

Progress Reports: The Governor's Office developed a newsletter to keep stakeholders informed about progress of the Oregon Plan. The "Information Update" currently contains information on what state agencies are doing and it will be expanded or replaced in the near future by a product that includes information from all plan partners.

Steelhead Supplement: The team organized public meetings and editorial board visits on the draft measures for the Steelhead Supplement. The public response from these meetings has been incorporated into this draft of the Steelhead Supplement. In early 1998, the team will organize community meetings along the coast and in northeastern Oregon.

Web Page: The Outreach Team oversaw development of a web page to house the Oregon Plan. StreamNet, a service provided through the Pacific States Marine Fisheries Commission, a key Oregon Plan partner, now provides administration of the page. The Outreach Team and StreamNet staff are discussing enhancements to the site.

Public Presentations: The Outreach Team updated presentation materials for the Steelhead Supplement to more broadly describe the Oregon Plan. This presentation has been used for community meetings and other presentations.

Additionally, state natural resource agencies are committed to effective enforcement and education of habitat protection regulations. Each agency will be responsible for demonstrating the compliance level for key laws and regulations.

Outreach and Education

Early in the development of the Oregon Plan, it was essential to raise public awareness of the issues involved with coastal coho salmon and the state's response to a potential listing of the fish under the Endangered Species Act. As the plan evolves into a statewide watershed restoration effort, the role of outreach and education expands as well.

It is in the translation of the principles of the Oregon Plan into values held in common by all Oregonians that the ultimate success of the plan resides. These principles include working together to preserve shared resources, promoting voluntary efforts that benefit watersheds, and simplifying land and water use requirements to make it easier for Oregonians to take steps to restore watershed health.

The Outreach Team has designed a communications strategy based on measureable outcomes that aims to achieve a culture in Oregon where individuals feel personally responsible for and able to control the health of their watershed. The team is developing strategies and tools and building partnerships to realize these outcomes over time.

Over the long run, watershed health must become a part of everyday decision-making in Oregon for the Oregon Plan to improve and protect our watershed health.

Independent Multidisciplinary Science Team

The Oregon Plan recognizes the importance of scientific oversight and peer review. In order to monitor the scientific basis of plan measures, the 1997 Oregon Legislature established a special review team. "The Independent Multidisciplinary Science Team" (IMST) has been jointly appointed by the Legislature and the Governor to use expert judgment in reviewing measures for their scientific validity to ensure that restoration efforts are based on the best science available.

The team consists of seven recognized, independent scientists representing a broad range of expertise. Team members are appointed to serve four-year terms.

The IMST will provide a periodic review of the Oregon Plan, including the Steelhead Supplement, and evaluate the strengths and weaknesses of plan measures. The team will provide an annual report on the implementation of the plan and recommendations for changes to plan efforts.

Monitoring

More than 80 different groups, including tribes, agency staff, stakeholders, and watershed councils, continue to improve a comprehensive monitoring program.

The current program describes 15 distinct tasks, from monitoring habitat conditions to fish abundance and even evaluating ocean productivity levels. The program includes provisions for more intensive monitoring in some core production and index areas while other parts of the program cover a broader geographic scope. Monitoring results will be summarized annually for Oregon's report on the progress of restoration efforts.

Viewing the Plan

Contact your local library to determine if copies are available at that branch for viewing.

Many State of Oregon natural resource agencies will also have full copies of the supplement available for public viewing. Phone numbers and addresses are available in the government listings or "blue section" of your phone book.

The plan is also available on the internet at:

[www Oregon-plan. erg](http://www.Oregon-plan.erg)

Feedback Loop

These reports will provide crucial feedback on accountability and the effectiveness of the Oregon Plan. There are three major categories of information that monitoring can provide:

Accountability: Monitoring demonstrates if agency commitments are sustained and if timelines for workplans are met. This type of monitoring demands that Oregon Plan partners follow through on promises made in the name of restoration efforts and management changes.

Compliance: As agencies implement their measures for the plan many are establishing baselines for compliance with environmental laws (see *Compliance*, p. 10). While this monitoring provides some immediate feedback to the plan, data must be gathered over time to establish trends.

Effectiveness: In order to evaluate the effectiveness of the Oregon Plan, status monitoring is needed to track the progress of fish species, habitat, and watershed health. The results from this monitoring may take many years to fully understand. Monitoring long-range progress will continue into the next century. However, in the short term, changes in ocean conditions, naturally occurring events, and radical shifts in population numbers may complicate our interpretations of "progress."

Enhancements to the Monitoring Program:

Several new elements have been added in the Steelhead Supplement to improve the monitoring program:

In order to best identify the results of Oregon Plan efforts and make them distinct from the other changes, the monitoring program is establishing methods to segregate "human-caused" effects from "natural" effects. This will allow the Oregon Plan to determine whether it is planned measures or naturally occurring effects which are responsible for improvements in fish populations.

In addition, the monitoring program has also expanded spawning surveys to gather new sources of data. This increased information will provide a more complete picture of what is happening to our declining species.

Finally, the monitoring program has developed a new protocol for data collection and a system for sharing that data. Agencies can improve the process of measuring habitat-related factors and can be certain that data are useful to other plan partners. Watershed councils and landowners may join the effort by using these protocol for collecting information for the monitoring program.

Funding

In April 1997, the Oregon Legislature established funding for the Oregon Plan through general fund money, a self-imposed tax on the Oregon timber industry, a \$1 surcharge on angling license fees, and funding from the concrete and aggregate industry. These funds, totalling \$30 million will provide resources to state agencies, watershed councils, landowners, and other partners engaged in restoration efforts.

The state is seeking an additional \$10 million to implement additional measures for steelhead. A variety of funding sources are being pursued including federal funding assistance.

Federal agencies are making substantial investments in salmon and watershed restoration. The Bureau of Land Management and the U.S. Forest Service are involved in funding and implementing the Northwest Forest Plan, which is a critical element of the Oregon Plan. Programs such as “Hire the Fishers” and “Jobs in the Woods” are providing key support to watershed councils, SWCDs, and other watershed restoration programs. Assistance from the Natural Resource Conservation Service through the Farm Bill and flood restoration funds might provide additional resources.

Additionally, voluntary private contributions totalling more than \$130 million have been committed for major restoration work.

Obstacles to Success of the Oregon Plan

Funding

Adequate funding is needed to support agency efforts and for projects that restore Oregon’s steelhead populations. There are many statewide issues competing for those resources. Restoration efforts must make the most effective use of available public and private funds.

Institutional Barriers

Many state, federal and local governments involved in natural resource management have a history of not communicating or fully cooperating with each other on habitat conservation. Time, public support, and continued leadership are needed to eliminate these institutional barriers.

Regional Coordination

Declining steelhead runs are occurring not only in Oregon but in the entire northwest region. A coordinated multi-state effort is necessary to restore critical aquatic habitat.

Monitoring Program

A comprehensive, multidisciplinary monitoring program is crucial to Oregon’s ability to conserve and restore aquatic systems. Monitoring of recovery faces many challenges. It will be important to succeed in indicating progress of Oregon Plan recovery efforts gauged against naturally occurring effects.

Public Expectations for a Quick-Fix

The complexity of steelhead life history and habitat needs does not lead to easy or quick solutions even though the public may expect instant results. Outreach and

education efforts are needed to sustain the momentum needed to achieve success in the long term.

An Adverse Ocean Environment

The ocean off the Oregon coast is extremely variable in its suitability for anadromous fish. No one can predict the cycles of good vs. poor ocean conditions. Presently, improvements can only be made to freshwater and estuarine habitats that support ocean going fish so populations can persist until more favorable ocean conditions return.

What to Expect Next

Development and implementation of the Steelhead Supplement marks another step in the process to conserve and restore salmon and trout populations in Oregon. The plan continues to be a dynamic process that is modified and improved as new information becomes available. The focus will expand to provide more detail for steelhead, cutthroat trout, chum salmon, and chinook salmon on a statewide basis.

For the success of the Oregon Plan and the Steelhead Supplement many immediate steps will occur:

- Leadership and coordination that has brought the plan to its current state of implementation will be continued.
- Oversight by the Oregon Legislature will be maintained.
- The Independent Multidisciplinary Science Team will review the Oregon plan and provide an annual report.
- Watershed councils, soil and water conservation districts, and other grassroots organizations must receive adequate support and technical assistance.
- State and federal agencies have made great strides in overcoming traditional territorial conflicts. They must continue to coordinate, communicate, and improve efficiency in shared missions.
- Regional strategies will be employed to coordinate steelhead restoration on a multi-state basis.
- Funding must be maintained from appropriate state and federal sources to support conservation and restoration efforts.
- Economic and social incentives need further development to support the Oregon Plan.
- Public outreach and education programs will improve the public's understanding of their watersheds.
- Delivery of information from the monitoring program to the grassroots level will be improved.
- Hundreds of commitments by government, watershed councils, conservation organizations, industries, and private landowners will be met.
- The Oregon Plan must be constantly re-evaluated and modified as necessary to ensure that the mission is achieved.

Feedback

Your inquiries and comments are welcomed!

For more information call:

(503)378-3589 Ext. 800

Or try the web site:

www.oregon-plan.org

Send questions and comments to:

The Oregon Plan
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- Federal financial support must be solicited to match state and local funding commitments.
- A long-term, dedicated funding strategy must be developed.

Conclusion

Oregon faces significant challenges in managing the state's natural resources. These challenges include restoring native fish populations and improving water quality in our rivers and streams. The Oregon Plan focuses on results through innovation and grassroots involvement for natural resource management. This supplement represents the continuing evolution of the Oregon Plan to collaborative problem solving. It demonstrates Oregon's spirit of natural resource citizenship coupled with local involvement and government partnerships to tackle natural resource issues using teamwork and cooperation.