

CHAPTER 1.

Introduction to the Snake River Salmon and Steelhead Recovery Plan

Since drafting the following sections of the Snake River Recovery Plan, NOAA Fisheries has renamed the Snake River Steelhead Evolutionary Significant Unit (ESU) the Snake River Steelhead Distinct Population Segment (DPS). The other species are still referred to as ESUs. Rather than change the terminology now and further delay distribution of these sections, NOAA Fisheries is distributing these draft sections with the ESU designation. The next draft will contain the DPS designation.

This is a plan for the protection and restoration of salmon and steelhead in the Snake River subbasin of the Columbia River Basin. The plan is the product of a collaborative process initiated by the National Marine Fisheries Service and involving other federal agencies, state agencies, tribes, local governments, and the public. In order to ensure consistency in goals, strategies and actions and to eliminate needless duplication of effort, the process integrated planning for Federal Endangered Species Act (ESA) recovery, the Northwest Power and Conservation Council (NPCC) fish and wildlife program, and the states of Idaho, Oregon, and Washington watershed management and salmon recovery programs.

The anadromous salmon and Steelhead in the Snake River Basin face a multitude of perils throughout their life cycle. They begin life in the gravel of fresh water streams up to 900 miles inland and 6,500 feet above sea level. They travel downstream to the ocean, undergoing extraordinary metabolic changes on the way to adapt to salt water. After spending one to several years traveling hundreds of miles in the Pacific Ocean, they return to the place of their birth with striking fidelity. Once abundant and widespread, Snake River salmon of natural origin are now reduced to a small fraction of their former numbers and have lost major portions of their former habitat. Many of the Snake River populations are now extinct.

1.1 The Meaning of Recovery

Broad goals for Snake River salmon and steelhead would be healthy, harvestable, and sustainable populations that provide substantial environmental, cultural, and economic benefits. Delisting or recovery under the ESA can be seen as a step toward these goals and a means to help achieve them. The impetus includes state and tribal goals for salmon recovery, the federal government's treaty and trust obligations to American Indian tribes, and NOAA's obligations under the Magnuson-Stevens Fisheries Conservation and Management Act to provide sustainable fisheries.

Recovery of anadromous fish species with complex life cycles such as the Chinook, sockeye, and steelhead of the Snake River basin cannot be accomplished by addressing a single threat or limiting factor. It requires a comprehensive approach, and it must work for the people of the region as well. This plan provides a roadmap for recovery. The aim is to reverse long-term declining trends and establish a trajectory leading to recovery.

Since existing information is too uncertain to prescribe the exact course to recovery, progress will be evaluated regularly and, where necessary, the course adjusted.

1.2 What a Recovery Plan Can Do

Recovery can be defined as the process of restoring listed species and their ecosystems to the point that their future is safeguarded and protections under the ESA are no longer needed. Thus, a recovery plan serves as a road map for species recovery—it lays out where we need to go and how best to get there. Without a plan to organize, coordinate and prioritize the many possible recovery actions on the part of federal, state, and tribal agencies, local watershed councils, and private citizens, our efforts may be inefficient or even ineffective. Prompt development and implementation of a recovery plan will help target limited resources effectively.

Further, recovery plans make visible the programs and activities of all the agencies and parties working on salmon recovery. This includes programs directly managed and implemented by land management and water management agencies; grants by regulatory and natural resource agencies; and programs that rely on the voluntary participation of many other people, such as private landowners, watershed councils, and various non-governmental entities.

NMFS scientists and policymakers believe the plan should be a dynamic document, able to incorporate new information as it becomes available; therefore, we have largely focused on actions needed in the relative short-term. The plan will be reviewed periodically; the relative success of these actions in protecting Pacific salmon will be assessed and adjustments made or additional actions added.

1.3 Who is Involved

Snake River salmon and steelhead face many threats in multiple environments throughout their lives. Everyone who lives, works, or plays on land or water in the Northwest can have positive or negative impacts on these fish. In short, virtually all human activities have some kind of impact on salmon, either directly or indirectly on their habitat. No single agency or action can accomplish the recovery of these endangered or threatened species.

NMFS intends to use the recovery planning process to develop cooperative relationships that will lead to positive actions benefiting ESA listed species. For example, if limiting factors involving agriculture are identified in a subbasin, a beneficial partnership would include NMFS, the Natural Resource Conservation Services, and the Idaho Soil Conservation Commission, which has the responsibility to develop and improve best management practices for agriculture on private lands. Our intent is to work within the framework of existing efforts whenever possible and not to create duplicative efforts that may conflict with state or local programs.

1.3.1 State and other federal agencies

Some of the current or potential partner agencies with environmental responsibilities are listed below.

Idaho

Idaho Soil Conservation Commission and Districts--Develops best management practices for irrigated agriculture and grazing. Soil Conservation Districts cover all of Idaho and the Districts have long been active in implementing conservation Programs in the state. They have a long and successful history of pursuing funding and implementing on-the-ground practices with private partners.

Idaho Department of Agriculture--Regulates confined animal feeding operations and pesticides within the State of Idaho.

Idaho Department of Water Resources--Manages water rights and has been a partner with federal agencies in settling the contentious Snake River Basin Adjudication and providing mechanisms for increasing instream flows for listed fish.

Idaho Department of Lands--Regulates the Forestry and Mining in the State of Idaho. Of the 3.65 million acres originally received, endowment lands currently total nearly 2.5 million acres, including 780,000 acres of commercial timberland and about three million acres of minerals. In addition, the Department of Lands, having been assigned additional duties over the years by the State Legislature, now serves as the host agency to the Idaho Board of Scaling Practices, the Clearwater-Potlatch Timber Protective Association and the Southern Idaho Timber Protective Association. SRBA partner in section 6 agreement on Forestry.

Idaho Department of Environmental Quality. Has primary responsibility for Clean Water Act in Idaho. Develops water quality standards and TMDLs to attain the standards.

Idaho Department of Transportation--Develops best management practices for road construction and maintenance in Idaho.

Oregon

Oregon Department of Fish and Wildlife—[needs summary of responsibilities]

Oregon Soil and Water Conservation Districts--Districts in Oregon partner with landowners to implement water conservation, water quality improvement, fish passage improvement, and riparian restoration projects.

Oregon Department of Agriculture--Regulates confined animal feeding operations within the State of Oregon. The Department of Agriculture also develops Agricultural Water Quality Management Plans to implement TMDLs in rural areas.

Oregon Department of Water Resources--Manages water rights and regulates the agricultural, municipal, and industrial use of surface and groundwater in Oregon.

Oregon Department of State Lands--Regulates discharge of fill material into waters of the State and wetlands. The Department of State Lands also regulates certain types of surface mining.

Oregon Department of Environmental Quality--Has primary responsibility for implementation of the Clean Water Act in Oregon. Develops water quality standards and TMDLs to attain the standards. Also maintains the 303(d) list of water-quality-impaired streams in Oregon.

Oregon Department of Transportation--Develops best management practices for road construction and maintenance in Oregon. The Oregon Department of Transportation is currently developing a compensatory mitigation program to offset some adverse effects of road projects on fish and wildlife in Oregon.

Oregon Watershed Enhancement Board--Funds watershed restoration projects throughout the State of Oregon and supports local watershed councils.

Model Watersheds and Watershed Councils--Partner with local landowners and Federal land management agencies to fund, plan, and implement restoration projects throughout Oregon.

Oregon Department of Forestry--Regulates private land forestry and develops forest practices for Oregon.

Oregon State Police--Enforce state fish and game laws.

Oregon State University Extension Offices--Provide research and technical assistance on the management of private lands, particularly in regard to livestock grazing and agriculture.

Washington

Washington State agencies relevant to salmon recovery are reviewed in the Washington portion of the Snake River recovery plan (Snake River Salmon Recovery Board, June 2005)

Other Federal Agencies

NMFS' relationship with other federal agencies is slightly different from its relation to State agencies and private entities, because of its regulatory role, defined in Section 7 of the ESA. Section 7(a) 1 gives federal agencies the responsibility to conserve species, and 7(a)2 requires federal agencies to consult with NMFS regarding any actions that might jeopardize an endangered species or destroy its habitat. The recovery plan offers an opportunity to better describe and refine the relationship between these two sections.

Forest Service

[Add other agencies such as NRCS, Transportation and BLM BOR, USACE.]

1.3.2 Tribal Organizations and Federal Treaty and Trust Obligations

In addition to its responsibilities to state and other federal agencies, NMFS has special responsibilities to American Indian tribes. A number of Oregon, Washington, and Idaho tribes share responsibilities and rights as co-managers of the fisheries in the Columbia Basin, based upon a complex history of treaties, executive orders, legislation, and court decisions.

There are 15 federally recognized Indian tribes within the Columbia Basin. All have expressed strong interest in the restoration of salmon and the health of the ecosystem upon which the salmon depend.

In the Treaties of 1855 between the U.S. government and the Confederated Tribes of the Warm Springs Reservation of Oregon, the Confederated Tribes and Bands of the Yakama Indian Nation, the Confederated Tribes of the Umatilla Indian Reservation, and the Nez Perce Tribe, the tribes, in exchange for the preponderance of their lands, reserved the rights to fish within their reservations and "at all other usual and accustomed places." The usual and accustomed places are understood to include the millions of acres of aboriginal land ceded to the United States in the 1855 treaties, which extends to the Upper Columbia and Snake River basins.

The Fort Bridger Treaty of 1868 with the Shoshone-Bannock Tribes, whose historical territory included much of the present-day states of Wyoming, Utah, Nevada, and Idaho, provided that these tribes "shall have the right to hunt on the unoccupied lands of the U.S. so long as game may be found thereon." ("Hunt" has since been interpreted to include fishing.) The Shoshone-Bannock Tribes historically hunted and fished within the Snake River Basin, but their present-day reservation is outside the current extent of Snake River salmon as well as outside the Snake River Domain defined for this recovery plan. The Ross Fork of the Snake River runs through the Shoshone-Bannock Fort Hall Reservation in Eastern Idaho, but it is part of the salmon habitat entirely blocked by the Hells Canyon dam complex.

The Columbia River Inter-Tribal Fish Commission (CRITFC) is the technical support and coordinating agency for the Columbia River treaty tribes' fishery management policies. CRITFC, formed in 1977, employs biologists, other scientists, public information specialists, policy analysts, and administrators who work in fisheries research and analysis, advocacy, planning and coordination, harvest control, and law enforcement. The Shoshone-Bannock tribal government is also involved in salmon recovery, with programs for habitat restoration and hatchery supplementation in the Snake River Basin.

Because of the extraordinary migratory characteristics of salmonids, the co-manager relationship crosses tribal, federal, and state boundaries. The NMFS Regional Administrator, in testimony before the U.S. Senate Indian Affairs Committee (June 2003), emphasized the importance of this co-manager relationship:

“We have repeatedly stressed to the region's leaders, tribal and non-tribal, the importance of our co-management and trust relationship to the tribes. NOAA Fisheries enjoys a positive working relationship with our Pacific Northwest Tribal partners. We view that relationship as crucial to the region's future success in recovery of listed salmon.”

Examples of that “positive working relationship” can be seen in federal-tribal participation within the *U.S. v. Oregon* and *U.S. v. Washington* framework and the participation of tribes on interstate (Pacific Fisheries Management Council) and international (Pacific Salmon Commission) management bodies. Additionally, there are innumerable local and regional forums and planning efforts in which the tribes are engaged. NMFS considers the participation of the tribes to be crucial to the management and recovery of the listed species.

NMFS is committed to meeting Federal treaty and trust obligations to the tribes. These obligations are described in a July 21, 1998 letter from Terry D. Garcia, Assistant Secretary for Oceans and Atmosphere, U.S. Dept of Commerce, to Mr. Ted Strong, Executive Director of CRITFC. This letter states that recovery “...must achieve two goals; 1) the recovery and delisting of salmonids listed under the provisions of the ESA; and 2) the restoration of salmonid populations over time, to a level to provide a sustainable harvest sufficient to allow for the meaningful exercise of tribal fishing rights.”

These two federal responsibilities complement one another. Both depend on a steady upward trend toward ESA recovery and delisting in the near term, while making river, harvest, and land management improvements for the long term. Furthermore, ESA delisting cannot occur until both biological objectives and the listing factors are considered and NMFS determines, based on an evaluation of the listing factors, that the listed species is no longer likely to require the protection of the Act. Therefore, NMFS will make no delisting decision until it is clear that the threats to the listed species have been addressed and that the status and trends of both the fish and their habitats will be healthy and sustainable in the long term.

Departmental and Executive policies related to the federal government's trust obligations include the following documents: Joint Secretarial Order on American Indian Tribal

Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act (Department of the Interior and Department of Commerce 1997); American Indian and Alaska Native Policy of the U.S. Department of Commerce (1995); Executive Order on Consultation and Coordination with Indian Tribal Governments (2000); Executive Order on Indian Sacred Sites (1996); Presidential Memorandum on Government-to-Government Relations with Native American Tribal Governments (1994; 59 FR 10877). See also NMFS 2004.

1.3.3 Interested public—organizations and individuals

Watershed councils, agricultural groups, environmental organizations such as Trout Unlimited, **[this section needs to be written]**

1.4 The Nature of this Plan

A recovery plan is not a regulatory document. It does not obligate any party, but it does establish specific responsibilities for actions that have been identified as important to fish recovery. Implementation of the plan can only be achieved through a regional partnership of local, state, federal and tribal interests. It focuses on achieving outcomes and allows implementing agencies and other entities the flexibility to craft innovative yet scientifically sound approaches that best fit local conditions and values.

This document describes:

- The institutional framework and rationale for writing recovery plans
- How NMFS expects to use the plans
- The regional domains of the Columbia Basin within which the recovery plans are written
- The relation of this plan to other planning processes and other ESA mandates
- The current status of listed salmon and steelhead in the Snake River Basin
- Recovery goals and strategy for the Idaho portion of the Snake River Basin
- Actions needed
- A framework for implementation and adaptive management

The State of Washington took responsibility for recovery planning for the portion of the Snake River basin within its borders. The state's Salmon Recovery Act established the Snake River Salmon Recovery Board in 2002; it comprises government and tribal representatives, landowners, and private citizens. With substantial funding from XXX, this group produced the *Draft Snake River Salmon Recovery Plan for SE Washington* in June 2005.

NMFS staff in eastern Oregon and Idaho compiled the information for the Oregon and Idaho portions of the Snake River basin from multiple sources, including federal, state, tribal, private, and local watershed organizations that are involved in salmon recovery. This is the first, in-house working draft of this recovery plan. It is posted chapter-by-

chapter on the Internet to provide an opportunity for informal public response during the development phase. Comments, critiques and suggestions may be submitted by e-mail to: SnakeRiver.nwr@noaa.gov or regular mail to: Snake River Salmon Recovery Plan, 10095 W. Emerald Street, Boise, ID 83704. This draft will be extensively reviewed and revised for publication as an official first draft in December 2005, with a subsequent formal period of public comment by public agencies, environmental organizations, landowners, interested public, and other stakeholders. In 2006, it will be revised and published again in final form for public reference and use.

Once this recovery plan is approved, all federal and nonfederal funding entities should develop a coordinated, prioritized, and accountable funding strategy. To facilitate implementation, NOAA intends to provide streamlined regulatory assurances for actions that are undertaken to implement recovery. As we implement recovery, monitoring, research and evaluation will have to be high priorities. Adjustments to our actions in response to new information will need to be accepted as we learn. The challenges of salmon recovery are immense, particularly in the face of increasing human populations and heavy demand for precious resources such as sufficient clean water. We will have to be prepared to monitor the benefits and costs of our actions and to tackle the hard issues.

1.5 Recovery Domains and Technical Recovery Teams

For the purpose of planning, NMFS organized the Columbia Basin into recovery “domains,” geographically distinct areas containing multiple listed salmon and steelhead, as follows: Oregon Coast, Puget Sound, Willamette/Lower Columbia River, and Interior Columbia River, which includes the Middle Columbia, Upper Columbia, and Snake River. For each recovery domain, NMFS Fisheries set up teams of experts, called Technical Recovery Teams (TRTs) to provide independent scientific consensus for the recovery plans. The TRTs are composed of scientists from NOAA Fisheries, the co-managers, and academia, with expertise relevant to the species and geographic area. In each of these domains, the states, tribes, and, in the Columbia Basin, the Northwest Power and Conservation Council (NPCC), developed local watershed and sub-basin plans. In many of the domains, local policy forums have also been established. These policy forums are using the smaller-scale watershed and sub-basin plans as building blocks to develop larger-scale recovery plans of action for the listed salmon and steelhead. The TRTs provide their recommendations to both NOAA and the local policy forums.

For more information about NMFS, the NPCC, the domains, and the TRTs, see the following Internet sites:

<http://www.nwr.noaa.gov/> <http://www.nwr.noaa.gov/1srd/Recovery/index.html>
<http://www.nwr.noaa.gov/1srd/Recovery/domains/index.html>
http://www.nwfsc.noaa.gov/trt/trt_columbia.htm

1.6 Interior Columbia TRT

The Interior Columbia TRT was formed in October 2001 along with the Interior Columbia Domain. A list of the members and their respective affiliations can be found in Appendix 3-X. Additional information about this TRT and its findings is available at: http://www.nwfsc.noaa.gov/trt/trt_background_meetings.htm

The TRT was asked to complete several tasks in this first phase of recovery planning:

- Define and describe populations within the ESUs.
- Identify goals for viable populations and viable ESUs.
- Identify factors for decline at the population level.
- Work to determine fish-habitat relationships.

The TRT posted maps on its website with preliminary identification of Interior Columbia Basin non-extirpated spring and summer Chinook populations and non-extirpated summer and winter steelhead populations, as follows:

- Snake River sockeye ESU: 1 population
- Snake River spring/summer Chinook ESU: 31 populations.
- Snake River fall Chinook ESU: 1 population
- Snake River steelhead ESU: 25 populations

The TRT has also posted viability criteria for each ESU and its component populations.

http://www.nwfsc.noaa.gov/trt/may2005_update_maps.htm

http://www.nwfsc.noaa.gov/trt/trt_viability.htm

1.7 The Snake Basin Recovery Domain

The Snake Basin recovery domain includes the Snake River from its confluence with the Columbia River upstream to Hells Canyon Dam, including watersheds such as the Salmon River and Clearwater River in Idaho, the Grande Ronde River in Oregon, and the Tucannon River in Washington. [**Domain map coming from Dave Crouse**]

The domain contains four listed ESUs:

- Snake River sockeye salmon [listed as endangered in 1991](#)
- Snake River spring/summer Chinook salmon [listed as threatened in 1992 \(corrected notice\)](#)
- Snake River fall Chinook salmon [listed as threatened in 1992 \(corrected notice\)](#)
- Snake River steelhead [listed as threatened in 1997](#)

This planning area is complex and diverse. It includes three states, a number of cities, and substantial areas of agricultural and forest use, including both public and private ownership. Large areas, including the Selway (in the Clearwater drainage) and the Middle Fork Salmon Rivers lie almost entirely within designated wilderness, and other areas are within national recreation areas and national forests where preservation of anadromous fish habitat is a high priority.

1.8 How NOAA expects to use the plan

Recovery plans are guidance documents, not regulatory documents. No agency or entity is required by the ESA to implement the recovery strategy or specific recommended actions in a recovery plan. However, the ESA clearly envisions recovery plans as the central organizing tool for guiding each species' recovery process. They should also guide Federal agencies in fulfilling their obligations under section 7(a)(1) of the ESA, which calls on all Federal agencies to "utilize their authorities in furtherance of the purposes of this Act by carrying out programs for the conservation of endangered species and threatened species..." In addition to outlining strictly proactive measures to achieve the species' recovery, plans provide context and a framework for implementation of other provisions of the ESA with respect to a particular species, such as section 7(a)(2) consultations on Federal agency activities, development of Habitat Conservation Plans under section 10, special rules for threatened species under section 4(d), or the creation of experimental populations in accordance with section 10(j).

Recovery plans are intended to help NMFS and other entities to do the following:

- Judge the significance of proposed actions relative to the importance of the affected habitat and ESU survival and recovery.
- Guide and expedite ESA 7 Section consultations, HCP approvals, and permitting applications for proposed actions consistent with recovery plans.
- Ensure an integrated approach to ESA Section 7 consultations across all "H's," (habitat, hydro, harvest, hatcheries).
- Focus funding and other efforts on priority areas and subjects that must be addressed first to achieve recovery.
- Improve cost effectiveness by identifying priorities and implementing credible adaptive management frameworks.
- Articulate the reasons for a species' endangerment, as well as why the particular suite of recovery actions described is the most effective and efficient approach to achieving recovery for the species

1.9 Summary of Snake River Basin Geography

The Snake River basin encompasses an area of 107,000 square miles in the states of Idaho, Nevada, Utah, Oregon, Washington and Wyoming. This is approximately half the total area of the Columbia River basin (219,000 square miles.) The Snake River is the largest tributary of the Columbia and is considered to have been the most important drainage for production of anadromous fish in the basin (NMFS 1995). The Snake River is estimated to have produced between 39 and 45 percent of all Columbia River spring and summer Chinook, 55 percent of summer steelhead and substantial numbers of fall Chinook, sockeye, and coho (NMFS 1995).

Hydroelectric dams have blocked access and inundated important spawning and rearing areas for salmon. [See Figure 2.] In all, about 2,500 miles of anadromous fish habitat have been lost to barrier dams and inundation. However, approximately two-thirds of the historical habitat for spring/summer Chinook and steelhead remains accessible to anadromous fish—roughly 6,300 stream miles out of 9,000 miles previously available (IDFG 1985).

Within the Snake River basin, the Salmon River is the largest river system contained entirely within one state (Idaho). The Middle Fork Clearwater and its major tributaries, the Lochsa and Selway Rivers (also in Idaho), are a close second. The Imnaha and Grande Ronde in Oregon and the Tucannon in Washington are other major tributaries still available to anadromous fish.

Topography in the Snake River basin varies from 12,662 feet elevation at Mount Borah in the headwaters of the Pahsimeroi River to 340 feet at the confluence with the Columbia. Terrestrial habitats include high elevation interior deserts, alpine peaks, temperate rain forests and the deepest river canyon in North America. Land uses range from the largest contiguous wilderness in the lower 48 states to agriculture and urban areas.

Starting in the 1800s, dams that blocked anadromous fish from their habitat were constructed for irrigation, mining and milling, and hydropower. Construction of the Hell's Canyon hydroelectric complex along the Idaho-Oregon border in the 1960s completed the extirpation of anadromous species in the Snake River and all tributaries above Hell's Canyon Dam. Major tributaries upstream from Hells Canyon Dam that once supported anadromous fish include the Wildhorse, Powder, Burnt, Weiser, Payette, Malheur, Owyhee, Boise, Bruneau, and Jarbidge Rivers, and Salmon Falls Creek.

Dworshak Dam, completed in 1971, caused the extirpation of Chinook and steelhead runs in the North Fork Clearwater River drainage. Washington Water Power's Lewiston Dam, built in 1927 and removed in 1973, is thought to have caused the extirpation of native Chinook salmon, but not steelhead, in the Clearwater drainage above the dam site. Harpster Dam, located on the South Fork Clearwater River at approximately river mile 15, completely blocked both steelhead and Chinook and caused extirpation of the native populations. In 1963, this dam was removed and fish passage was restored to approximately 500 miles of suitable spawning and rearing habitat.

Loss of habitat for sockeye and fall Chinook was proportionately greater than for spring/summer Chinook and steelhead, with less than 20 percent of the historical habitat for fall Chinook remaining. The Payette Lakes (Big, Little, and Upper) at the headwaters of the Payette River system (now inaccessible to the fish) were the largest producers of sockeye in the Snake River basin (Evermann 1896). Sockeye were also extirpated from Wallowa Lake and Warm Lake by barrier dams. The remaining habitat in Redfish, Alturas, and Pettit Lakes in the upper Salmon River represents about 25 percent of the historically available sockeye rearing habitat in the basin.

In addition to anadromous salmonids, there are many other terrestrial and aquatic organisms that occupy the diverse habitats available. Ninety-nine species of large and small mammals, 15 species of amphibians, 22 species of reptiles, and 390 species of birds have been reported in the Snake River basin within Idaho (Groves et al. 1997). Nearly all of the same species would be expected to occur in the adjacent portions of the basin within Oregon and Washington. For more information on wildlife in the Snake River basin see *Atlas of Idaho's Wildlife* or visit the websites of the Idaho Conservation Data Center (www.state.id.us/fishgame/info/cdc/cdc.htm) or Idaho Museum of Natural History (imnh.isu.edu/digitalatlas). These sites include species lists, distribution data, and lists and status of state and federal species of special concern.

[Needs summary of human factors – settlement patterns and land use, economic drivers, demographics, etc]