



OREGON LEGISLATIVE POLICY, RESEARCH, & COMMITTEE SERVICES

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Endangered Fish Species: The Federal Endangered Species Act and the Oregon Plan

THE BIG PICTURE

Plant and animal species evolve and become extinct as part of the natural life process. From fossil records, scientists have calculated the long-term rate of extinction for species overall. The protection of endangered species initially arose from evidence that the extinction rate has significantly accelerated in the most recent period of earth's history. The underlying concerns are that gene pools will lose important diversity necessary for adaptation; that we will lose the benefits these species may provide us (food, medicine, nutrient cycles); and, ultimately, that our own survival is linked to other species.

BACKGROUND

Since Congress enacted the Endangered Species Act in 1973, 1,326 species have been determined to be in danger of extinction. Fish species of concern in Oregon generally are found to have a stock status (population) of less than ten percent of historic runs. Declining fish populations have far-reaching environmental, social, and economic impacts in nearly every basin in the state. Environmental implications relate not only to the loss of a particular species but extend to their contribution to nutrient cycles supporting a whole web of aquatic and terrestrial food chains. Families and local economies dependent on fisheries have been hard hit. The Institute for Fisheries Resources calculates that declines in Columbia basin salmon runs translate into an economic loss of up to \$500 million annually in lost personal income, equivalent to approximately 25,000 family wage jobs. Hal Radtke, a natural resources economist, estimates that the loss of fisheries in the Klamath Basin has resulted in a yearly income loss of \$32 million and 1,600 jobs. The Oregon Coastal Zone Management Association found that fishing restrictions on the coast has meant a drop in commercial fishing income from \$41 million in the late 1970's to an estimated \$4 million expected in 1998.

Many competing interests must be considered as federal, state, and local forums struggle to balance uses of the rivers and ocean resources among commercial and recreational fishing, hydropower energy generation, transportation of goods, fish and wildlife habitat, tribal rights, waste disposal, water supply, and recreational uses. The challenge for decision-makers will only increase as the population expands. Further difficult decisions are on the horizon as choices are made about changing resource management practices that entail their own costs and economic losses (such as electric generation, shipping, and irrigation).

The National Marine Fisheries Service reports that fifty populations of salmon and steelhead in the Columbia basin are now extinct. Several fish species in Oregon are currently in jeopardy including Coho salmon, Chinook salmon, Chum salmon, Sockeye salmon, Steelhead trout, and Sea-Run Cutthroat trout. The appendix identifies the listing status, geographic areas impacted, and next steps in the recovery process for each listed species.

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THE FEDERAL ENDANGERED SPECIES ACT

The U.S. Endangered Species Act (ESA) protects species whose survival is recognized (listed) as endangered or threatened. The National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service (USFWS) share responsibilities for implementing ESA requirements. The National Marine Fisheries Service has jurisdiction to implement ESA requirements for anadromous species (such as salmon) that migrate from the ocean to freshwater for spawning and rearing. The U.S. Fish and Wildlife Service has the same jurisdiction with respect to non-anadromous (freshwater) species. Authority under the Act includes listing decisions, developing recovery plans, designating critical habitat, and regulating ‘take’ of a listed species. A **take** means “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct” 16 U.S.C. 1532(19).

National Marine Fisheries Service policy states that a vertebrate population will be considered distinct (a separate **species**) for purposes of conservation under the Act if the population represents an **evolutionarily significant unit (ESU)** of the biological species. An ESU contains a distinct population if it is substantially reproductively isolated and represents an important genetic component in the evolutionary legacy of the species. Currently, nine ESU’s in Oregon contain anadromous fish species that are listed as either threatened or endangered.

KEY SECTIONS OF THE ENDANGERED SPECIES ACT

Section 9 makes it unlawful for any person to take any threatened or endangered species of fish or wildlife without authorization. Remedies for violations include injunctions, civil fines up to \$25,000 per violation and criminal penalties of up to \$50,000 and/or one year’s imprisonment per violation. To date, no one has been prosecuted for a violation in Oregon; however, NMFS filed for a court injunction to stop operation of the Savage Rapids project. Administrative rules implementing Section 9 are significant because the rule defines “harm” to include adverse habitat modification.

Section 10 authorizes NMFS and USFWS to issue **incidental take permits** “if such taking is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity.” To obtain a permit, an applicant must develop a **habitat conservation plan (HCP)** which demonstrates the activity will not appreciably reduce the likelihood of the survival and recovery of a listed species in the wild.

Section 7 requires federal agencies to ensure that any action they undertake will not jeopardize the continued existence of any listed species or result in the destruction or adverse modification of critical habitat that has been designated for a listed species. Federal agencies comply with this directive by formally consulting with the appropriate Service (NMFS or USFWS). The consultation process results in a **biological opinion** describing the probable impact on a listed species and may include measures to reduce adverse impacts.

Section 4 allows exceptions to the Section 9 “take” prohibition with respect to threatened species for specified activities. These exceptions are commonly referred to as 4(d) rules and are published in the Federal Register when adopted. This section also provides for accepted state recovery plans to be the designated recovery path instead of federal regulation. It also identifies a process for removing species from the ESA list.

HOW ARE EXTINCTION RISKS DETERMINED?

The National Marine Fisheries Service considers all available scientific information investigating the following types of questions: What was the historic population of the species? What is the current population of the species? Does the species inhabit the full range of its habitat? What is the condition for each year class in the maturation cycle of the species? What factors of decline does the species face within the range of its habitat? Many factors contribute to any particularly species survival or extinction. A risk of extinction is calculated by looking at both the natural population status (numbers) and the present factors of decline. Common factors of decline identified for fish species in Oregon include:

- Degradation of spawning and rearing habitat
- Blockages and impediments to spawning and rearing habitat
- Hatchery fish interaction
- Exotic species competition
- Marine mammal and bird predation
- Adverse ocean conditions
- Harvest rates
- Water withdrawals, altered stream flows and temperatures
- Removal of large woody debris and its sources
- Construction and operation of hydroelectric and other purpose dams

WHAT DOES A LISTING MEAN?

Endangered status means the identified species (within an ESU boundary) is in danger of extinction throughout all or a significant portion of its range. An endangered listing automatically prohibits any action(s) that would result in a “take” of a listed species.

Threatened status means that the species is likely to become endangered in the foreseeable future. A threatened listing triggers the development of a 4(d) rule that may allow certain activities to be exempt from the “take” prohibition.

Candidate status means that either the species does not face imminent extinction or additional information is necessary to determine whether it may qualify as threatened or endangered. Oregon was the first state in which a salmon population received a candidate status from NMFS instead of a listing based, in part, on the state recovery plan. However, that decision was set aside by the U.S. District Court of Oregon resulting in a threatened listing for Coastal Coho salmon (court case discussed below).

Proposed listings initiate a one-year deadline for the National Marine Fisheries Service to determine the risk of extinction and make a final listing decision. That decision will either be one of the above three categories or a ‘not warranted’ decision which removes the species from ESA regulation.

THE OREGON PLAN

In July 1995 the National Marine Fisheries Service proposed listing the Oregon Coast ESU of Coho salmon as a threatened species under the Endangered Species Act (ESA). Over the next two years, the Governor and Oregon Legislative Assembly undertook an unprecedented effort to develop and fund a state strategy to recover the Coastal Coho salmon population and avoid federal intervention. In March 1997 the Oregon legislature enacted, and the Governor signed into law, measures addressing harvest, hatchery, and habitat management along with a \$30 million dollar funding package to implement the strategy. The statutory revisions, together with administrative policy and rule changes, are now known as the 'Oregon Plan' for Salmon and Watersheds. Based on plan components and the state's financial commitment, the National Marine Fisheries Service, for the first time in history, decided to allow Oregon to take the lead in recovery efforts by placing the species in candidate status. Early this year, the plan was expanded to include strategies to recover populations of Steelhead trout which resulted in similar candidate listing decisions for the Steelhead populations in the Oregon Coast ESU and Klamath Mountains ESU.

Oregon signed a Memorandum of Agreement with NMFS and earmarked \$30 million to implement the Oregon Plan on the condition that Oregon Coast Coho salmon were not listed as threatened or endangered. The Oregon Natural Resources Council sued NMFS in U.S. District Court asserting that the Service erred by considering voluntary and non-implemented measures in the Oregon Plan when making their decision. The District Court's decision in Natural Resources Council of Oregon vs. Department of Commerce (97-1155-ST) found for the plaintiffs and required NMFS to make a new decision without accounting for voluntary or other Oregon Plan measures not fully in place. The State of Oregon has filed an appeal of the decision with the Ninth Circuit Court. On August 3, 1998, NMFS listed Oregon Coast Coho salmon as threatened. For that reason, Governor Kitzhaber filed notice on October 28 of his intention to terminate the Memorandum of Agreement with the National Marine Fisheries Service. An executive order is expected to reaffirm Oregon's commitment to species recovery.

HOW WILL THE OREGON LEGISLATURE BE INVOLVED IN SPECIES RECOVERY?

The Joint Committee on Salmon and Stream Enhancement is responsible for overseeing implementation of the Oregon Plan. The 70th Legislative Assembly will be asked to make policy decisions and allocate funds to guide species recovery efforts and watershed health improvements. Part of those discussions will include implementation of Ballot Measure 66, approved by the people on November 4, that amends the Oregon Constitution to dedicate 7.5 percent of net lottery proceeds to protect native salmon, wildlife habitat, and watersheds.

Appendix
Oregon Endangered Species Act Listings
November, 1998

SPECIES	ESU	LISTING STATUS	NEXT STEP/Deadline
Coho salmon	Southern OR/North CA	Threatened	Final critical habitat designation and 4(d) rule December 1998
	Oregon Coast	Threatened	Status review July 1999
	Lower Columbia River	Candidate	Propose critical habitat designation and propose 4(d) rule August 1999
Chinook salmon	Snake River (Fall)	Threatened	Under 4(d) rule Further determine if inclusion of Deschutes River is warranted March 1999
	Snake River (Sp/Sum)	Threatened	Under 4(d) rule
	Southern OR/CA Coast	Proposed Threatened	Final decisions and Critical habitat designation March 1999
	Lower Columbia River	Proposed Threatened	Same as above
	Upper Willamette River	Proposed Threatened	Same as above
	Upper Columbia (Spring)	Proposed Endangered	Same as above
Chum salmon	Columbia River	Proposed Threatened	Final decision and critical habitat designation March 1999
Sockeye salmon	Snake River	Endangered	Under Section 9 rule
Steelhead trout	Upper Columbia River	Endangered	Critical habitat designation March 1999
	Snake River	Threatened	Same as above Propose 4(d) rule
	Lower Columbia River	Threatened	Critical habitat designation March 1999 Propose 4(d) rule
	Klamath Mountains	Candidate	Listing re-assessment No deadline at this time
	Oregon Coast	Candidate	Same as above
	Upper Willamette	Proposed Threatened	Final listing decision and Critical habitat designation March 1999
	Middle Columbia River	Proposed Threatened	Same as above
Sea-Run Cutthroat	Umpqua River	Endangered	Re-assess listing decision December 1998
	All Oregon populations	Candidate	Final listing decision December 1998