

# FINAL BILL REPORT

## 2ESHB 1309

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Synopsis as Enacted

C 4 L 93 E1

**Brief Description:** Protecting and recovering wild salmonids.

By House Committee on Fisheries & Wildlife (originally sponsored by Representatives King, Orr, Scott, G. Cole, Basich, Lemmon, Morris, Jones, Rust, Holm, R. Meyers, Johanson, J. Kohl, Jacobsen and Leonard).

House Committee on Fisheries & Wildlife  
House Committee on Appropriations  
Senate Committee on Natural Resources  
Senate Committee on Ways & Means

### **Background:**

#### THE ENDANGERED SPECIES ACT AND WILD SALMONIDS

##### Columbia River Salmon and the Endangered Species Act (ESA):

In April and June of 1990, petitions were filed under the ESA by the Shoshone-Bannock tribe in Idaho, Oregon Trout and five other organizations, to list five wild stocks of Columbia River salmon as threatened or endangered. These stocks were: Snake River sockeye, Snake River spring, summer, and fall chinook, and lower Columbia River coho. The National Marine Fisheries Service (NMFS) is the federal agency with jurisdiction over endangered salmon species. In April and June of 1991, NMFS proposed that three of the five stocks of salmon be listed under the ESA. These stocks were the Snake River sockeye salmon (proposed as endangered), the Snake River fall chinook (proposed as threatened) and the Snake River spring/summer chinook (proposed as threatened). The three stocks were officially listed by NMFS in late 1991 and in 1992.

Wild Stocks Under the Endangered Species Act: An important part of the NMFS decision was its determination of what the definition of stocks would be that constituted a "species" for purposes of the ESA. The agency determined that an "ecologically significant unit" would constitute a species for these purposes. Another key point in application of the ESA to fish is that the wild stocks were recognized as being genetically and biologically important and meriting protection, while naturally spawning fish that had been intermixed with hatchery stocks did not warrant consideration under the ESA as separate wild stocks.

Salmon in the Columbia River System and Reasons for Decline: Approximately one-third of the Columbia River drainage that historically supported salmon populations is not currently accessible to these fish because of dam construction without fish passage facilities. Alterations in river flow and velocity, adjacent habitat changes due to timber, agricultural and grazing practices and reduced instream flows, irrigation diversions, commercial and recreational harvest, and hatchery practices have resulted in fewer returns of spawning adults from the ocean than historically. In the mid-19th century, anadromous fish runs in the Columbia River basin numbered up to 16 million adult fish. Anadromous fish include salmon, steelhead, and sea-run cutthroat trout. Juveniles migrate from freshwater to the ocean, where they take between one and five years to mature. They return as adults to their streams of origin to spawn. Salmon and steelhead numbers on the Columbia have been reduced to about 15 percent of historic run sizes.

Endangered Salmon Recovery Efforts:

- (1) Salmon Recovery Team: NMFS appointed a salmon recovery team following the listings of Columbia River salmon. Their mission is to develop a recovery plan for the listed stocks. The plan is expected to be presented to NMFS in the spring of 1993.
  
- (2) Northwest Power Planning Council Fish and Wildlife Plan Amendments: In 1980, Congress passed the Northwest Power Act. The act created the Northwest Power Planning Council (NWPPC) and directed it to determine how much energy the region would require over the next 20 years; to develop an electric power plan to meet those needs; and to develop a program to protect, and enhance fish and wildlife and related habitat in the Columbia River basin. To accomplish this, the NWPPC developed the Columbia River Basin Fish and Wildlife Program, which has several features important to salmon survival, including a water budget, juvenile fish bypass facilities improvement schedule, active transportation of fish around lower dams and reservoirs, adult fish passage facilities, and an integrated system plan for enhancements. Power generation methods for power purchased by Bonneville must be in compliance with the council's plan.

The council amended its program plan in 1992, in response to the declining wild salmon stocks. Specific recommendations for Columbia River salmon recovery include increasing river velocities to reduce fish travel time, screening dams to protect juvenile fish, reducing losses to predators such as squawfish, seals

and sea lions, barging juvenile fish past dams, reducing harvest, improving hatchery practices, and protecting and restoring habitat.

- (3) Columbia River Salmon Flow Measures: The Army Corps of Engineers, Bureau of Reclamation, and the Bonneville Power Administration conducted a reservoir drawdown experiment on the Snake River in March 1992, to determine whether such a drawdown would increase flows and thereby the speed of juvenile fish passage, and whether such a project would have adverse effects on the dam, roads, or irrigators. The draft results of the experiment were published in November 1992, and although the test provided substantial information on physical effects, the biological and environmental effects remain inconclusive.

Status of Other Wild Salmonid Stocks: A 1991 report by members of the Endangered Species Committee of the American Fisheries Society states that 214 native, naturally spawning salmonid stocks in Oregon, Washington, Idaho, and California are at high or moderate risk of extinction. Fifty-two of these are in the Columbia River Basin and 38 are along the Washington Coast or in Puget Sound. The departments of Fisheries and Wildlife are currently conducting status reviews of wild salmon and steelhead stocks, respectively, in Washington, and expect to complete draft reports by February of 1993.

A petition to list bull trout, a resident salmonid species, was recently filed in September 1992, with the U.S. Fish and Wildlife Service in Montana, for listing and designation of critical habitat regionwide including Washington.

#### HARVEST AND HATCHERY MANAGEMENT TECHNIQUES TO INCREASE WILD STOCKS OF SALMONIDS

The Department of Wildlife regulates the recreational harvest of resident fish and of steelhead and sea-run cutthroat trout. The Department of Fisheries regulates the commercial and recreational salmon fisheries for non-treaty fishers. Both agencies coordinate with the tribes in developing commercial harvest regulations. The tribes fish commercially for both salmon and steelhead. Regulations are designed to provide harvest opportunities and sustain fish runs.

Marking and Catch and Release: Where a distinction between wild and hatchery stocks needs to be made for the purpose of allowing wild fish, if caught, to be released, the hatchery fish may be marked by clipping the adipose fin. The Department of Wildlife has marked most of its hatchery-raised steelhead and sea-run cutthroat trout and is therefore able to

implement catch and release regulations for recreational fishers. For almost all of the steelhead and sea-run cutthroat stocks identified by the American Fisheries Society as stocks of concern, these regulations are already in place. The Department of Fisheries has not marked all hatchery fish. Even if all were marked, the utility of returning wild fish caught commercially with current techniques is low, since these fish caught in nets are usually dead shortly after the nets are hauled in. The recreational fishery could be managed for catch and release if all hatchery-raised salmon were marked. However, there are concerns about hooking-related mortality. Certain fishing methods such as fish wheels and weirs may allow selectivity in the commercial fishery; however, these have been made illegal in the state (RCW 75.12.040).

#### FISH AND WILDLIFE HABITAT CONSIDERATIONS IN MANAGING AGRICULTURAL AND GRAZING LANDS

Grazing and agricultural practices can negatively affect fish and wildlife by removing native vegetation, by altering streamside vegetation, and by degrading water quality. The decline of some salmonid stocks in Washington has been attributed by some scientists to agricultural and grazing practices.

Programs to Protect Fish and Wildlife on Agricultural and Grazing Lands: The federal Clean Water Act and State Water Pollution Control Act (chapter 90.48 RCW) require that land management activities maintain clean water standards that have been developed pursuant to the federal act to protect water quality. Best management practices (BMPs) are being developed for use by landowners to maintain water quality that meets the standards. Agricultural BMPs exist for dairies, irrigated agriculture and dryland agriculture. The state conservation districts participate in providing interested landowners with information on how to achieve the standards in the BMPs. The Department of Ecology will verify complaints of water quality violations due to agricultural and grazing practices and will prescribe remedial measures to the violator that are designed to meet BMPs. Various federal and state cost-share programs exist to assist landowners in meeting BMPs.

Under 1990 provisions of the federal Food Security Act, erodible soils and wetlands on farmlands are protected by providing financial incentives to landowners to do so. The Conservation Reserve Program (CRP), for example, pays agricultural landowners to remove highly erodible cropland from production. The purpose of these programs is for soil and water conservation and water quality, but fish and wildlife habitat may also benefit.

Under provisions of the Growth Management Act, counties and cities in Washington must designate and protect critical areas and designate natural resource lands. However, there are no regulatory programs that specifically require that fish and wildlife habitat be protected or managed according to certain standards on private agricultural and grazing lands, although there are several cost-share and technical assistance programs available from the state and federal governments for fish and wildlife habitat management. The Forest Practices Act requires riparian zone protection in certain forested lands.

Management of Agricultural and Grazing Lands by the departments of Natural Resources and Wildlife: The departments of Natural Resources and Wildlife lease state lands for grazing and agriculture, and each agency is subject to specific statutory mandates and operates under distinct management policies to carry out those mandates.

Washington State Department of Natural Resources (DNR): Of the approximately three million acres of trust uplands managed by DNR, about 1.1 million are leased or permitted for livestock grazing or agriculture in Washington State. The department manages lands which are held in trust for various educational and institutional beneficiaries, and has the fiduciary responsibility of managing these lands for providing income to the trust beneficiaries. The income generated from lease and permit fees is distributed to the appropriate trust beneficiaries, including the Common School Construction Fund, universities and other state institutions.

The Department of Natural Resources adopted an Agricultural and Grazing Policy Plan in 1988, which outlines resource protection policies for management of agricultural and range lands. The policies do not specifically require the achievement of wildlife or fisheries goals in land management activities, although the importance of riparian zones is addressed. The department implements resource protection agreements with 15 to 20 percent of lessees to protect soil and water resources, with the intent of maintaining long term productivity of its trust lands. The department requires that the lessees premises remain open to hunting and fishing.

Washington State Department of Wildlife (WDW): The Department of Wildlife manages 840,129 acres of land in Washington, and about 160,000 acres are leased for livestock grazing and agriculture. WDW's statutory mandate is to preserve, protect, and perpetuate wildlife (RCW 77.12.010). To this end, a department policy applicable to grazing permits (Policy 2255) states that all grazing permit proposals must demonstrate that grazing will benefit wildlife and be in the public interest. The department is authorized by RCW 77.12.210 to lease property. The department requires a grazing plan from each

potential lessee, and the Wildlife Commission reviews each grazing permit to determine whether the grazing will benefit wildlife management programs. Specific terms and conditions in the lease may address on-off dates, move dates, livestock numbers, rotation schedule and pattern, forage use level and/or stubble height. A monitoring plan is also required of the lessee, to ensure that conditions are being met. The department receives habitat enhancement services from lessees in addition to lease fees.

Habitat Management Standards for Fish and Wildlife Protection on Agricultural and Grazing Lands: Best management practices address part of what fish need to survive: clean water. There are many components of fish habitat such as shading and large organic debris in the stream, that are not part of the BMPs. Specific standards for fish, wildlife and habitat protection on forested lands have been developed by the Department of Wildlife's Priority Habitats and Species Program. These do not have the force of law, but are management recommendations for use by interested parties. Such standards have not yet been developed for widespread use on agricultural and grazing lands, although the Department of Wildlife applies standards to the lands under its management or control.

Washington State University: Washington State University's agricultural department and cooperative extension service conduct research and provide educational information on agricultural and grazing practices to a variety of landowners. The cooperative extension service works with conservation districts and the federal Soil Conservation Service in its efforts to prescribe BMPs. There is no statutory provision for incorporating fish and wildlife considerations into these programs.

#### WATER CONSERVATION MECHANISMS TO IMPROVE FISH HABITAT

Water use in Washington includes municipal, industrial, irrigation, hydroelectric generation, and instream uses. Irrigation accounts for the majority of water use in Washington. Water withdrawals in eastern Washington are primarily from surface water sources and used for irrigation. The largest surface water withdrawals are from the upper Columbia and Yakima river basins. In western Washington, withdrawals are also from surface water, but the main use is for public supply. Groundwater withdrawals are mainly from the Columbia river aquifer.

The Department of Ecology is the lead agency in water resource management. The Department of Health (DOH) and the Utilities and Transportation Commission (UTC) share the goal of assuring safe and reliable supplies of drinking water. The Department of Health has the authority under Chapter 70.119A RCW to

implement the federal Safe Drinking Water Act amendments of 1986. DOH has regulatory jurisdiction over public water systems. In Washington, any water system serving two or more connections is classified as a public water system. A public water system can be publicly or privately owned. Publicly owned systems include water districts, public utility districts, and cities and towns. Privately owned water systems include companies, associations, mutuels, and cooperatives. There are currently over 12,500 water systems in the state of Washington that have two or more service connections. Over 12,300 of these have less than 1,000 service connections and are defined as small water systems. These systems often have financial problems, and 95 percent of them are privately owned.

Offstream uses of water for drinking water supply and irrigation compete with instream needs. Adequate instream flows are important for fish. Several stocks of salmonids have been identified as being in decline due to, in part, lack of adequate instream flows. Instream flows for beneficial uses are set by Department of Ecology rule, with statutory authority provided by RCW 90.22.010. Instream flow levels on many important salmonid bearing streams have yet to be established. Under existing state law, instream flows established by administrative rule are senior to subsequently established water rights but junior to prior established water rights. Since most instream flows have been established since 1975, many are junior in status to existing water rights.

Rate Structures: Water conservation techniques can help to achieve or restore adequate instream flows where they are currently inadequate. These techniques can include incentives and can be applied selectively to areas where known problems exist. The departments of Ecology and Health administer a water conservation planning program, under which public water systems for potable water supply must prepare water system plans with conservation elements (RCW 43.20.230). The Draft Interim Guidelines for Public Water Systems Regarding Water Use Reporting, Demand Forecasting Methodology, and Conservation Programs, issued in November 1992, and prepared jointly by DOE, DOH, and the Washington Water Utilities Council, identify conservation pricing as a rate design technique to provide economic incentives to conserve water, and require public water systems of 1,000 service connections or more to evaluate conservation pricing as a conservation element in the conservation program.

RCW 43.20.230 requires the Department of Health, contingent upon the availability of funds, to adopt model rate structures for use primarily by small water systems (those with less than 1,000 service connections). This has not been done due to lack of funding. Several large utilities have begun an

incremental process of rate reform to remove disincentives to conservation. At least one irrigation district has adopted an increasing block rate.

Trust Water Rights: In 1991, the Legislature passed ESHB 2026, which authorized a trust water rights program to be established in two pilot planning areas, and in up to eight water resource inventory areas designated by the Department of Ecology. Through this program, the state may acquire water rights by gift, purchases, or through dedication of public funds for water conservation projects, in exchange for rights to the net water savings achieved by the project. Acquisitions of trust rights must be voluntary and agreed to by all parties and must not impair existing water rights. This is one strategy to increase instream flows.

Water Resources Forum/Instream Flow Policy: In 1990, members of the Joint Select Committee on Water Resource Policy, other legislators, the governor's office, and tribal leaders agreed to develop a process for regional water resources planning. ESHB 2932, passed by the Legislature in 1990, required that this occur. The Chelan Agreement was formulated to provide a framework for this planning, and the Water Resources Forum is carrying out the planning process. The forum is currently developing an instream flow policy for the state.

Metering of Diversions: Current law requires that owners of ditches or canals maintain metering to the satisfaction of the Department of Ecology (RCW 90.03.360). Metering of any diversions and reporting on the amount of water diverted may be required as a condition for all new water right permits. The purpose of metering is to assure that water withdrawals do not exceed appropriated amounts. Many diversions are not metered and so enforcement of water use is difficult.

#### ENVIRONMENTAL EDUCATION

RCW 28A.230.020 provides that all common schools shall give instruction in science with special reference to the environment. In 1987, the Office of the Superintendent of Public Instruction (SPI) developed environmental education guidelines for Washington schools. In 1990, the state Board of Education adopted a resolution which requires the integration of environmental education in grades K-12. In 1990, the Governor's Council on Environmental Education was created by Executive Order 90-06 as part of the Environment 2010 Action Agenda. The council is moving from a science-oriented approach to environmental education toward integration of science with language arts, math, social studies, health and physical education, with the intent of providing recommendations on environmental issues to SPI and the state Board of Higher Education, among others, and with



the intent of supporting interdisciplinary programs in K-12. A focus on the importance of fish and wildlife may be lost in these efforts to broaden environmental education.

The school districts are not required to utilize recommendations from the council or SPI. One mechanism to encourage adoption of recommendations at the district level is to provide incentives such as funding.

**Summary:** The Department of Fisheries (WDF) and the Department of Wildlife (WDW) are each directed to establish a wild salmonid policy, jointly with the tribes, by July 1, 1994. The policy is to ensure that department actions and programs are consistent with the goals of rebuilding wild stock populations to levels that permit commercial and recreational fishing opportunities.

WDF and WDW are directed, with input from the tribes, and after coordination with California, Oregon, Alaska, Idaho, British Columbia, Montana and appropriate federal agencies, to jointly report to the Legislature on the feasibility of selective marking techniques that can be used to minimize impacts of fishing on wild or natural stocks of salmonids. The report is to address costs, benefits, and risks associated with marking.

WDF is directed to evaluate and recommend, in consultation with the Indian tribes, salmon fishery management strategies and gear types, as well as a schedule for implementation, that will minimize the impact of commercial and recreational fishing in the mixed stock fishery on critical and depressed wild stocks of salmonids. As part of this evaluation, the department, in conjunction with the commercial and recreational fishing industries, will evaluate commercial and recreational salmon fishing gear types developed by these industries. The department is to present status reports to the Legislature by December 31 of each of 1993, 1994, and 1995, and will present the final evaluation and recommendations by December 31, 1996.

Development and Application of Habitat Management Standards: By December 31, 1993, WDW and WDF are each to develop goals to preserve, protect, and perpetuate wildlife and fish on shrub steppe habitat or on lands that are presently agricultural lands, rangelands or grazable woodlands. These goals are to be consistent with the maintenance of a healthy ecosystem. The Washington State Conservation Commission is directed to appoint a technical advisory committee by July 31, 1993, to develop standards that achieve these goals. The committee members will include but are not limited to technical experts representing the following interests: agriculture, academia, range management, utilities, environmental groups, commercial

and recreational fishing, Indian tribes, Department of Wildlife, Department of Natural Resources, Department of Ecology, Department of Fisheries, the conservation districts, the Washington Rangelands Committee, and the Department of Agriculture. A member of the Conservation Commission will chair the committee.

By December 31, 1994, the committee must develop standards to meet the goals established by WDF and WDW. These standards are not to conflict with the recovery of wildlife or fish species that are listed or proposed for listing under the federal Endangered Species Act.

The Conservation Commission is to approve the standards and provide them to DNR and WDW, the Washington State University Cooperative Extension Service, each of the conservation districts, and the appropriate committees of the Legislature. The conservation districts are to make these standards available to the public and for coordinated resource management planning.

The Department of Wildlife and DNR are directed to implement practices necessary to meet the standards developed pursuant to this act on department owned and managed agricultural and grazing lands. Implementation of the standards on DNR lands is to be consistent with the trust mandate of the Washington State Constitution and Title 79 RCW. The standards may be modified on a site specific basis as needed to achieve the fish and wildlife goals, and as determined jointly by the either the Department of Fisheries or the Department of Wildlife, according to the species which each of these agencies respectively manages, and the relevant land managing agency. Renewal of agricultural or grazing leases after December 31, 1994 will be subject to the developed standards.

Integration of Fish and Wildlife into Agricultural Curriculum at Washington State University: Washington State University is directed to report to the appropriate legislative committees by December 31, 1993, on how to best integrate fish and wildlife considerations with the existing curriculum in the university's agriculture department and with the cooperative extension service. Washington State University will also report on the feasibility and cost of creating a rotational assignment with WDW to accomplish cross-training in wildlife and fish management and farm and grazing management.

Providing Stock Status Data: WDF and WDW are directed to provide information on salmonid stock status by individual stock to the Department of Ecology, the Washington Association of Cities, the Washington State Association of Counties, and water purveyors.

Water Metering: The Department of Ecology (DOE) is to condition all new surface water right permits with a requirement for the metering of diversions or for measurement by other approved methods and for the reporting on the amount of water being diverted. The department must condition previously existing surface water rights with such a requirement if the diversion is from waters in which the salmonid stock is identified by WDF or WDW as depressed or critical, or if the diversion exceeds one cubic foot per second. The DOE is authorized to condition all water rights with a metering requirement. The DOE is to notify WDW or WDF of the status of fish screens associated with these diversions. The DOE is to attempt to integrate the metering work into the existing compliance workload, but to prioritize metering ahead of the existing workload in situations where a delay in metering could cause harm to wild salmonids.

Water Rate Structure Evaluation and Model Rate Structures: Water purveyors required to develop a water system plan pursuant to RCW 43.20.230 are to evaluate the feasibility of adopting and implementing water delivery rate structures that encourage water conservation. This information is to be included in water system plans submitted to the Department of Health (DOH) for approval after July 1, 1993. The Department of Health is to evaluate the following:

- (1) rate structures currently used by public water systems in Washington; and
- (2) economic and institutional constraints to implementing conservation rate structures.

The Department of Health is directed to provide its findings to the Legislature no later than December 31, 1995.

The Department of Health is directed to provide advice and technical assistance on request for development of model conservation rate structures for public water systems.

The Department of Ecology, in cooperation with the Washington State Water Resources Association, is directed to:

- (1) determine and evaluate rate structures currently used by irrigation districts in the state of Washington;
- (2) identify economic and institutional constraints to implementing conservation rate structures; and
- (3) develop model conservation rate structures for consideration by irrigation districts.

The Department of Ecology is to provide its findings to the Legislature no later than December 31, 1993.

Instream Flow List: By December 31, 1993, DOE is directed, in cooperation with WDF and WDW and the Indian tribes, to establish a list of priorities for evaluation of instream flows in basins with declining stocks of wild salmonids. The list is to be presented to the Water Resources Forum and the Legislature. In establishing these priorities, DOE is to consider the recovery and protection of wild salmonids as its primary goal. The Department of Ecology is also to recommend ways of applying water savings from water rights transfers to achieve instream flows.

K-12 Education: The Governor's Council on Environmental Education is directed to accomplish the following:

- (1) raise and distribute public and private funds for the purpose of providing environmental education programs to public and private elementary and secondary schools. The programs are to emphasize the importance of species conservation and fish and wildlife as indicators of ecosystem health;
- (2) support interdisciplinary programs that integrate fish and wildlife preservation and management with other areas of environmental education; and
- (3) balance educational programs, including economic costs and economic benefits of species conservation.

The act is null and void if specific funding is not provided in the Omnibus Appropriations Act.

**Votes on Final Passage:**

House 92 5

First Special Session

House 86 6

Senate 39 6

**Effective:** August 5, 1993