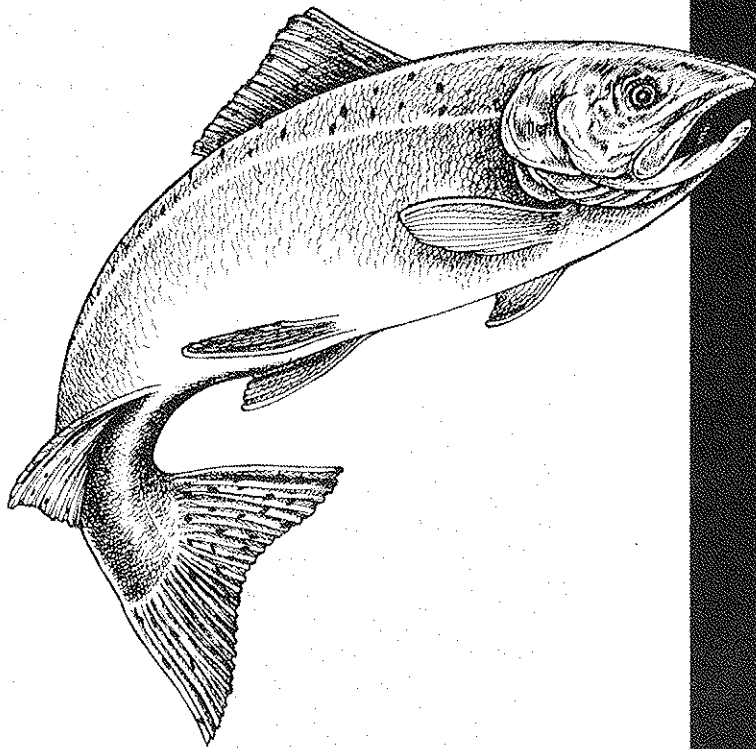
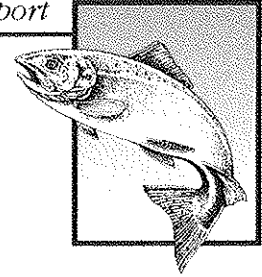


# *I. Introduction*





*Elinor Chittenden  
displays a steelhead  
caught in 1907,  
before the Elwha  
Dam was  
constructed.  
(Asabel Curtis photo,  
Washington State  
Historical Society)*



## I. Introduction

The Elwha and Glines Canyon dams were constructed on the Elwha River to provide hydroelectric power for local consumption. Elwha Dam was constructed from 1910 to 1913 without fish passage facilities and does not have a Federal license to operate. The Glines Canyon Project was constructed from 1925 to 1927, was licensed by the Federal Power Commission for a period of 50 years in 1926, and has received annual licenses since 1976. The privately-owned projects' combined average annual generation of 18.7 megawatts (MW) of energy serves Daishowa America's Pulp and Paper Mill in Port Angeles, Washington, supplying about 38% of the Mill's power needs.

The contemporary Federal licensing process began when the Crown Zellerbach Corporation (previous owner) submitted license applications to the Federal Power Commission (precursor to the Federal Energy Regulatory Commission (FERC)) for the Elwha Project in 1968 and the Glines Canyon Project in 1973 (Projects).

Since 1911, the Elwha and Glines Canyon dams have blocked anadromous fish passage to more than 70 miles of the Elwha River and its tributaries, limiting salmon production to the lower 4.9 miles of the river below Elwha Dam (Figure 1). As a result, all native Elwha River anadromous fish runs have been severely diminished and the ecosystem disrupted, especially within a large portion (about 19%) of Olympic National Park. At least one Elwha River salmon stock<sup>1</sup> (sockeye salmon) may be extinct while two stocks (spring chinook and pink salmon) may only be present in extremely small numbers. Numerous wildlife populations within the basin are suspected to have declined. In addition to ecological damage, the Projects have dramatically reduced the treaty fisheries of at least four federally recognized Indian Tribes (including the Lower Elwha S'Klallam, the Port Gamble Klallam, the Jamestown Klallam, and the Makah) and blocked access to many traditional fishing sites and other traditional cultural properties.

During the 1980's, the FERC licensing process became extremely contentious and drawn out, due primarily to national policy implications of licensing a project within a National Park, the inability to design fish and wildlife mitigation measures capable of meeting Federal, State, and Indian Tribe resource goals, and legal challenges by conservation groups (i.e., Seattle Audubon Society, Sierra Club, Friends of the Earth, and Olympic Park Associates). Continued attempts to resolve FERC licensing issues were certain to result in protracted litigation, and considerable delay and expense for all parties, including the Federal Government. Failure to reach consensus would lead to the courts deciding vital issues without the opportunity for rational compromise. Verdicts would be narrowly defined by the issues taken before the courts, resulting in a piecemeal approach to the problem when a comprehensive solution is needed.

To resolve these conflicts, Congress enacted a legislative settlement of the issue. The Elwha River Ecosystem and Fisheries Restoration Act was signed into law as Public Law 102-495 by President Bush on October 24, 1992 (Appendix A). P.L. 102-495 represents a negotiated solution that provides an avenue to negate lengthy and costly litigation, protect 300 jobs at the Daishowa America Mill, contribute to numerous jobs throughout the region through restoration activities and increased commercial and recreational fishing and tourism, support economic development for an impoverished

<sup>1</sup>A fish stock refers to "the fish spawning in a particular lake or stream (or portion of it) at a particular season, which fish to a substantial degree do not interbreed with any group spawning in a different place, or in the same place at a different season" (Ricker 1972).

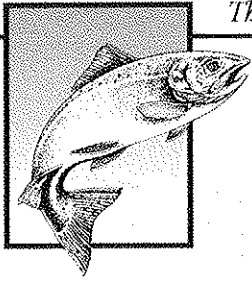
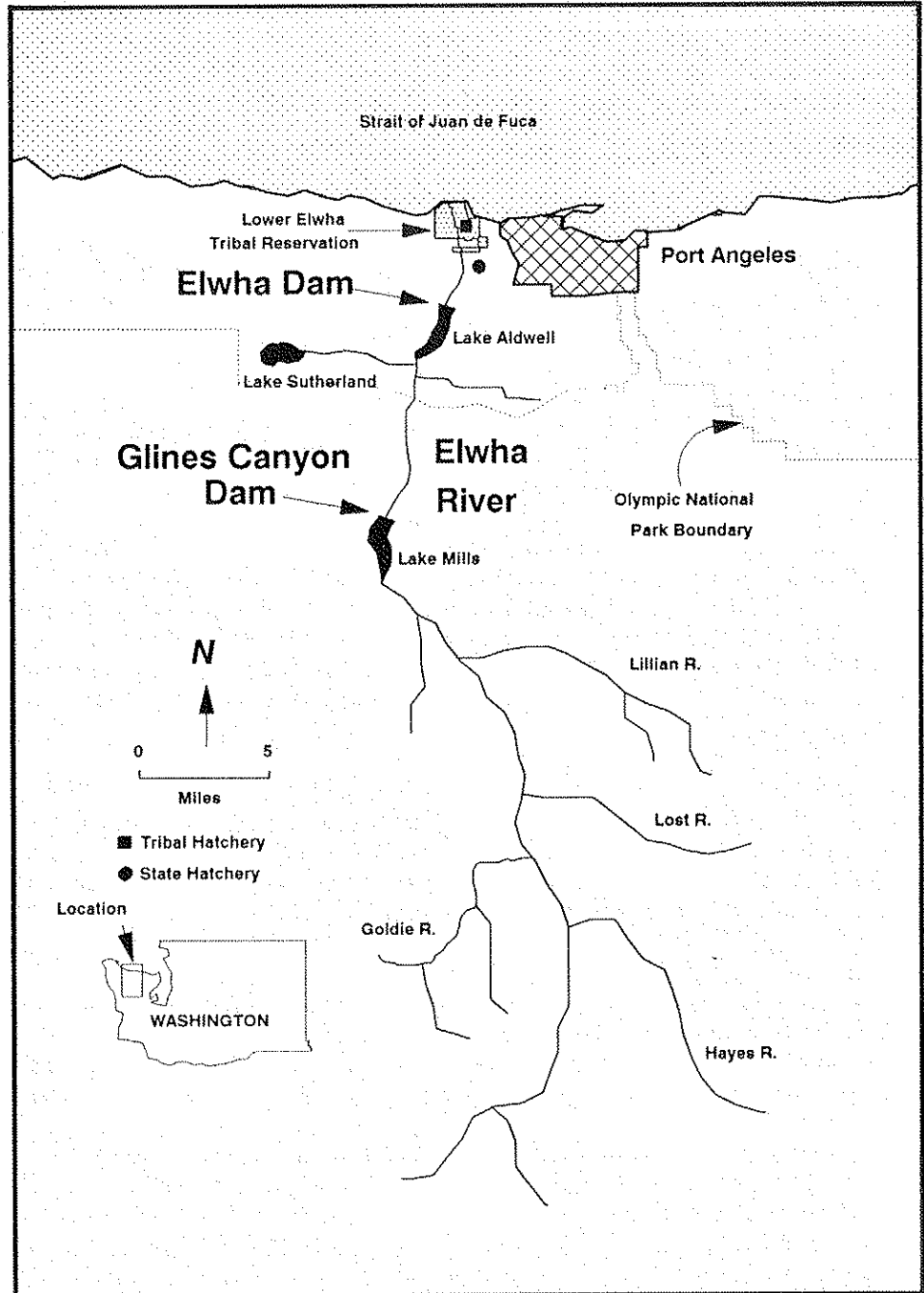
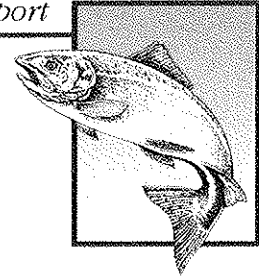


Figure 1. Location map for the Elwha and Glines Canyon dams.





Indian Tribe, restore a national park ecosystem and native anadromous fisheries, contribute to the understanding and improvement of restoration techniques, and assure the protection of municipal and industrial water supplies. In addition, removal of the dams and restoration of the ecosystem and native anadromous fisheries would promote tribal fisheries and the Federal trust responsibility to affected Indian Tribes.

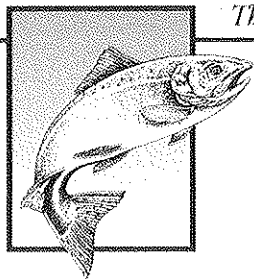
The goal of the Elwha River Ecosystem and Fisheries Restoration Act is the "full restoration of the Elwha River ecosystem and native anadromous fisheries" (Section 3(c)). The Act authorized the Secretary of the Interior to acquire the Projects and remove the dams if he determined that their removal was necessary to meet this goal. The Secretary was to develop a report documenting his conclusion and provide it to the Congress no later than January 31, 1994. Additionally, the Secretary was directed to include in the report information on dam retention alternatives that would provide less than full restoration. FERC had analyzed the dam retention alternatives in detail in a March 1993 "Draft Staff Report for the Glines Canyon (FERC No. 588) and Elwha (FERC No. 2683) Hydroelectric Projects, Washington." FERC's findings have been summarized herein<sup>2</sup>.

Objectives of this restoration will be to emulate a natural functioning, self-regulating ecosystem. To evaluate ways to meet these objectives, Department of the Interior bureaus (including the National Park Service, Fish and Wildlife Service, Bureau of Reclamation, and Bureau of Indian Affairs) and cooperating entities, including the Lower Elwha S'Klallam Tribe and the Department of Commerce's National Marine Fisheries Service, developed additional information on dam removal, water quality protection, and fisheries and habitat restoration. As a result of these investigations, the Secretary has determined that removal of both the Elwha and Glines Canyon dams is the only alternative that would achieve the goal of full restoration of the Elwha River ecosystem and native anadromous fisheries. Although some anadromous fish stocks are extinct (sockeye salmon) or are only present in very small numbers (spring chinook and pink salmon), other stocks of fish that are physically and/or genetically close to Elwha River fish could be substituted.

The Secretary has also determined that removal of the Elwha and Glines Canyon dams, while providing for ecosystem and fisheries restoration and the protection of water users, is feasible. Therefore, this report also contains details regarding acquisition of the Projects including an analysis of responsibilities and liabilities, alternatives for dam removal and sediment management, plans for fish and habitat restoration and the protection of existing municipal and industrial water supplies, analyses of impacts to historic properties and the regional power supply, and a discussion of alternatives for disposition of project property.

Public Law 102-495 directed the Secretary of the Interior to include in his report a "definite plan" for removal of the Elwha and Glines Canyon dams. Removal of the dams would constitute a major Federal action, thereby requiring compliance with the National Environmental Policy Act (NEPA). The Secretary's report demonstrates that dam removal is feasible and is necessary for the full restoration of the ecosystem and native anadromous fisheries. The report describes plans consisting of four options

<sup>2</sup>Reference to the Draft Staff Report does not denote Department of the Interior concurrence with specific FERC findings. Rather, FERC text and analyses incorporated in this report have been adjusted based on the standard of "full restoration" as specified in P.L. 102-495 and errors have been corrected.



for removal of the dams, nine scenarios for managing the accumulated sediments, and a process for analysis of these alternatives consistent with full restoration of the ecosystem and native anadromous fisheries. A preferred alternative would be selected during the Environmental Impact Statement (EIS)/advanced planning stage, to be initiated in fiscal year 1994. Acquisition of the projects could occur either prior to or following the EIS/advanced planning report.



*Elwha River, May 27, 1907.  
(Asabel Curtis photo,  
Washington State  
Historical Society)*