

Removal of Dams Essential To Ecosystem Restoration

In the Fall 1989 issue of *Park Science*, John Aho and John Meyer reported on the effort by Olympic NP to restore anadromous fish into the upper Elwha River above two hydroelectric dams. While restoration of native salmon, char, and trout runs is the objective, the overriding goal is restoration of the ecosystem and natural processes, of which the fish are an integral component.

Olympic NP and several resource agencies (known collectively as the Joint Fish and Wildlife Agencies – JFWA) have been examining two alternatives for restoring these fish resources. The first alternative is provision of state-of-the-art fish passage facilities at the two dams. The second alternative is removal of both dams.

During 1990, the JFWA gathered information and assessed feasibility of restoring 10 endemic stocks of anadromous fish under each alternative. Information assessment showed that under the state-of-the-art alternative, only 4 or 5 of the original 10 stocks could be restored, and the restoration chances of these were only fair. With the dams' removals, chances are fair to good of restoring all stocks.

Olympic also examined potential effects on the ecosystem that would result from restoration under these 2 alternatives. Returning significant quantities of fish biomass was considered to be a critical factor in restoring natural processes. Biomass from fish carcasses, eggs, and juveniles, would be reduced by about 75 percent if the dams remain.

Because of the lower number of stocks that can be restored with the dams in place and the significantly lower biomass available to the ecosystem, Olympic NP has determined that only through removal of the dams can the park's restoration goals be met. USFWS has concluded that the dams should be removed. THE JFWAs are examining methods of removing the dams and stabilizing the sediments stored in their reservoirs. Much work remains before restoration can occur, but Olympic NP staff are encouraged over the possibility of restoring natural processes in this 175,000 acre watershed.

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