American Fisheries Society
Oregon Chapter
PO Box 722
Corvallis, OR 97339
www.orafs.org

November 12, 2004

Donna Darm
Chief, Protected Resources Division
NOAA Fisheries
525 NE Oregon Street- Suite 500
Portland, Oregon 97232

Dear Ms. Darm,

This letter provides comments by the Oregon Chapter of the American Fisheries Society on the "Proposed Policy on the Consideration of Hatchery-Origin Fish in Endangered Species Act Listing Determinations for Pacific Salmon and Steelhead" (Federal Register Notice 31354 June 3, 2004). The Oregon Chapter of the American Fisheries Society is comprised of over 400 fisheries and aquatic science professionals from federal, state, and tribal agencies, colleges and universities, and diverse private employers, including students and retirees. The Chapter was established in 1964 as part of the American Fisheries Society. Our mission is to improve the conservation and sustainability of Oregon fishery resources and their aquatic ecosystems for long-term public benefit by advancing science, education and public discourse concerning fisheries and aquatic science and by promoting the development of fisheries professionals. Given the wide range of expertise in fisheries resources of our members, the comments below reflect views from the Fish Culture and Natural Production perspectives.

The proposed five point Hatchery Listing Policy is supported by scientific principles and also identifies the social and cultural need for hatchery salmon and steelhead, specifically in regards to fulfilling treaty obligations. The proposed policy specifically states that genetic resources can reside in a fish spawned in a hatchery (hatchery fish) as well as in fish spawned in the wild (natural fish). Hatchery fish and their inherent genetic resources are indeed an important resource to manage from both an ESA and harvest perspective, and the new policy recognizes that. An important aspect of the hatchery listing policy is also stated in reference to one of the purposes of ESA, and that is "to provide a means whereby the ecosystems upon which endangered species and threatened species may be conserved." It should be noted that hatcheries are not a substitution for habitat. Or simply, natural production needs to be sustainable in the natural habitat. In application of this policy, hatcheries may play a role in conservation, but species can not be taken off the Endangered Species List solely by maintaining a population in a hatchery, just as land mammal populations conserved in a zoo environment are not considered restored until natural production is viable and self-sustaining in their native habitat. Hatcheries

and their genetic resource can play a role in conservation and recovery when coupled with habitat protection and restoration.

From a Fish Culture point of view, it is difficult to disagree with the substance of the proposed policy. Many hatcheries, being under increased scrutiny and having to redefine their purpose and role in their respective ecosystems, are maintaining genetically diverse populations that are being raised under more natural conditions (lower densities, different feeding strategies, improvements in coloration, behavior modification to mimic wild fish, and increased attention to preventing disease rather than just treating disease). Sections of the report written by the Salmon & Steelhead Hatchery Assessment Group seem to have made a fair assessment of the hatchery populations we reviewed in the Lower Columbia Region. Some hatchery populations do represent the ecological and genetic diversity of the species so it would seem right to include their numbers in ESUs. However, a downside to this is that inclusion of hatchery fish in the ESU may mask or disguise the continued need for improvements in habitat and hydropower, something that is a viable concern, given the driving forces of politics and human economics.

We also reviewed how the proposed Hatchery Listing Policy was applied to making a proposed listing determination under the Endangered Species Act for the Lower Columbia River *Oncorhynchus mykiss* ESU (Federal Register Notice 33102 June 14, 2004). When reading the document, the overwhelming feature noticed was that: "Integrated" hatchery programs had the potential for reducing the risk to the ESU and that "Isolated" hatchery programs had a neutral to increased risk to the ESU. Oregon AFS agrees with that finding. A concern we have is related to the complicated nature of making a listing determination for an entire ESU that includes a diverse group of populations with various levels and types of hatchery production. The summer run steelhead in the Wind River, WA (which has no hatchery equivalent) and the Clackamas River, OR winter run steelhead (isolated and integrated hatchery production) are two such examples. That is, does each population have the same risk of extinction and how does that affect the ESU listing? The process for making status determinations (section 4) seems well thought-out for a population within a single watershed, but complicated if it is to cover a wide range of watersheds and populations as it apparently does in the Lower Columbia *O. mykiss* ESU. Different races of fish may exhibit different degrees of extinction risk given the broad and diverse landscape of the Lower Columbia region. After careful consideration of this concern, Oregon AFS agrees with the conclusion and recommended finding of "Threatened" for this ESU.

Oregon AFS recommends that it would be a valuable exercise for NOAA Fisheries to review this and other ESUs to theoretically model various combinations of "integrated" and "isolated" hatchery programs along with establishing “no hatchery” reserves to assess what effect that would have on the ESA listing and future for recovery. Our hypothesis is that when it comes to hatchery production, having more "integrated" vs. "isolated" hatchery programs would assist with recovery as more habitat became available, or as the limiting features of the habitat (like upstream and downstream passage) were improved. From this perspective, "integrated" hatchery programs would assist in the speed of recovery and potentially provide a genetic reserve for future restoration. The critical points are to conserve the genetic material and to provide habitat that can sustain natural production, along with establishing “no hatchery” reserves as reference streams.

Thank you for the opportunity to comment on these important proposals. Please let us know if we can help with future reviews.

Sincerely,

Doug Olson
President, Oregon Chapter
American Fisheries Society

cc Western Division AFS