

## Hatchery Scientific Review Group

### Pacific Salmon Hatchery Reform

[www.hatcheryreform.us](http://www.hatcheryreform.us)



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*Andy Appleby, Co-Chair*

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*Dr. Trevor Evelyn*

*Dr. Lisa Seeb*

*Stephen Smith*

November 10, 2014

Mr. William W. Stelle, Jr.  
Regional Administrator  
National Marine Fisheries Service, West Coast Region  
National Oceanic and Atmospheric Administration  
7600 Sand Point Way NE, Building 1  
Seattle, Washington 98115-0070

Dear Mr. Stelle,

The Hatchery and Scientific Review Group (HSRG) commends you, your staff and your fishery co-managers for publication of your Final Environmental Impact Statement to Inform Columbia River Basin Hatchery Operations and the Funding of the Mitchell Act Hatchery Programs. The HSRG has strived to assist fishery managers in improving the application of the best available scientific information in management of Columbia Basin salmon and steelhead hatcheries to achieve goals in fish conservation and sustainable fisheries. The final EIS provides a sound technical foundation for creating your future hatchery policy direction and making subsequent funding decisions regarding fish production.

The HSRG was encouraged by your applying the Lower Columbia River Fish Recovery Board's population designation system to fish populations potentially affected by Mitchell Act program activities. We believe such a delineation of biologically significant and less important populations of each species is critical to adapting artificial production programs in a manner that can achieve both your conservation and sustainable fisheries goals. Your application of evaluative metrics like Proportionate Natural Influence (PNI) and Proportion of Hatchery-Origin Spawners (pHOS) will assist NOAA and co-managers in improving production programs and fisheries management to optimize both conservation and sustainable fisheries. And finally, your application of analytical tools such as the HSRG's AHA model will provide clarity in management assumptions and application of necessary scientific information for species' management. We encourage carrying these advancements forward into your upcoming policy direction to promote hatchery programs that are designed and operated in a scientifically defensible manner (HSRG Principle #2).

The HSRG encourages creation of a policy direction that requires specific and quantifiable harvest and conservation goals for the natural and hatchery populations affected by your hatchery programs; and that these goals be developed within an "All H", comprehensive strategy that integrates knowledge of population habitat, harvest and any hydropower effects (HSRG Principle #1). And, the HSRG encourages a policy direction that requires annual monitoring and

evaluation to compare program performance against management goals; a timely adaptive management process (HSRG Principle #3).

The final EIS did not provide clear goals and objectives on how Mitchell Act hatcheries should operate in the future. We understand that has been left to a future policy direction to be created from the range of alternatives displayed in the EIS. In developing that policy, the HSRG encourages NOAA to reflect more on the use of selective fisheries in combination with reformed hatchery operations to optimize co-managers' conservation and sustainable fisheries goals. In its scientific assessments, the HSRG found that shifting more harvest to selective fisheries increases harvest of hatchery-origin fish, which provides social and economic benefits, and reduces risks to conservation of biologically significant salmon and steelhead populations. Prior HSRG analyses also demonstrated that implementing hatchery reforms alone, without increases in selective fishing, did not optimize conservation and harvest benefits from hatchery programs. Conservation standards can be more widely achieved throughout the Basin with actual increases in harvest if salmon are harvested more in selective fisheries and in select, known-stock fisheries away from migrating wild stocks.

As stated above, the HSRG recommends that hatchery operations be guided by clear objectives and standards to provide a sound and scientific basis for subsequent evaluation of performance and adaptive management. The HSRG encourages NOAA to establish clear operating standards and thresholds in its forthcoming policy direction. Stating that performance of a hatchery program will be "stronger" or "intermediate" relative to important performance metrics does not provide sufficient clarity in management standards. We recommend that hatchery performance be managed to achieve, over time, a conservation or a harvest performance standard. Program performance can be most efficiently improved through a process of adaptive management, where program performance relative to standards is regularly evaluated and actions adjusted accordingly. Such progress towards performance standards is exemplified by established standards like a hydropower operating standard of 96% juvenile passage survival at a given dam or a recovery standard of greater than 1.0 productivity rate.

As NOAA proceeds to its policy direction, the HSRG recommends consideration of its most recent paper, [On the Science of Hatcheries, An updated perspective on the role of hatcheries in salmon and steelhead management in the Pacific Northwest](#). This paper can be viewed at [www.hatcheryreform.us](http://www.hatcheryreform.us). The HSRG is also available to assist NOAA in drafting or reviewing technical elements of your forthcoming policy direction.

Sincerely,



Andy Appleby  
HSRG Co-Chair



Peter Paquet  
HSRG Co-Chair

cc: Dr. Lars Mobrand  
Mr. Lee Blankenship