



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
West Coast Region
1201 NE Lloyd Boulevard, Suite 1100
PORTLAND, OREGON 97232-1274

July 21, 2017

Dr. Jim Unsworth, Director
Washington Department of Fish and Wildlife
600 Capital Way North
Olympia, Washington 98501-1091

Dear Director Unsworth:

NOAA's National Marine Fisheries Service (NMFS) is currently reviewing hatchery and genetic management plans (HGMPs) for Puget Sound salmon and steelhead hatchery programs under the Endangered Species Act (ESA) and National Environmental Policy Act (NEPA). NMFS is aware that the Washington Department of Fish and Wildlife (WDFW) operates summer steelhead programs in the Stillaguamish (Whitehorse Ponds) and Snohomish (Reiter Ponds) River basins but, to date, updated HGMPs for these two programs have not been submitted to NMFS for review and approval.

NMFS recognizes the importance of these summer steelhead hatchery programs to fisheries in Puget Sound. Fishing for steelhead in summer months adds to the variety of opportunities for recreational and tribal fishermen in a part of the state where steelhead fishing typically occurs during the winter months. However, NMFS continues to have concerns about the use of Skamania steelhead broodstock in the Stillaguamish and Snohomish River basins.

Skamania summer steelhead are derived from a highly domesticated broodstock developed in hatchery programs located in tributaries to the Lower Columbia River. The broodstock was subsequently transplanted for use in Puget Sound hatcheries. The Puget Sound Technical Recovery Team considered use of out-of-DPS steelhead as a key risk factor (Hard et al. 2015) in their analysis of steelhead populations and Distinct Population Segment (DPS) viability. The production and release of hatchery-origin Skamania stock early summer steelhead into the Snohomish basin has negatively affected the abundance, diversity, spatial structure, and productivity of the winter and summer steelhead natural populations as described in our biological opinion completed in 2016 for the WDFW's Reiter Ponds and Tokul Creek hatchery early winter steelhead programs (NMFS 2016a). A key technical document cited in our opinion, completed by Dr. Ken Warheit of the WDFW Molecular Genetics Laboratory, concluded that genetic impacts to the two native summer steelhead populations in the Snohomish Basin have been so large that they are now considered feral populations of Skamania-stock fish (Warheit 2014). In a second biological opinion (NMFS 2016b), we concluded that production and release of Skamania steelhead was likely to adversely affect the abundance, diversity, spatial structure, and productivity of the natural-origin steelhead populations in the Stillaguamish basin. Although the precise effects of Skamania steelhead production on the two native Stillaguamish summer steelhead populations are still unknown, given the small sizes of any extant population(s), historical hatchery fish release strategies, and the long term duration of the



Skamania program, genetic diversity effects may potentially be similar to those observed for the native Skykomish summer steelhead populations. WDFW has noted that Skamania hatchery programs pose a high potential genetic risk (Scott and Gill 2008).

NMFS encourages you to work with the tribal co-managers, the Ad Hoc Puget Sound Steelhead Advisory Group, and other interested stakeholders to review the effects of these programs on the listed summer steelhead populations in the Snohomish and Stillaguamish basins prior to submitting updated HGMPs for the Reiter and Whitehorse Ponds summer steelhead programs. Specifically, we hope that this review will encourage the timely development of alternatives to using segregated Skamania broodstock in the Snohomish and Stillaguamish basins.

We value the work that WDFW has done to date to evaluate the effects of the Skamania summer steelhead hatchery programs (e.g., Warheit 2014), and we look forward to working with you, the tribal co-managers, and other parties to determine how hatchery programs in the Stillaguamish and Snohomish River basins can be structured to best serve both fisheries and the recovery of listed Puget Sound steelhead.

If you have any questions, please contact Allyson Purcell, Acting Branch Chief for Anadromous Production and Inland Fisheries, at (503) 736-4736.

Sincerely,



Barry A. Thom
Regional Administrator

cc: Jim Scott, WDFW
Mike Crewson, Tulalip Tribes
Ray Fryberg, Tulalip Tribes
Jason Griffith, Stillaguamish Tribe
Lorraine Loomis, Northwest Indian Fisheries Commission
Allyson Purcell, NMFS
Tim Tynan, NMFS

Citations

Hard, J.J., J.M. Myers, E.J. Connor, R.A. Hayman, R.G. Kope, G. Luchetti, A.R. Marshall, G.R. Pess, and B.E. Thompson. 2015. Viability criteria for steelhead within the Puget Sound distinct population segment. U.S. Department of Commerce, NOAA Tech. Memo. NMFS-NWFSC-129.

NMFS. 2016a. Endangered Species Act - Section 7 Biological Opinion and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat (EFH) Consultation for Two Hatchery and Genetic Management Plans for Early Winter Steelhead in the Snohomish River basin under Limit 6 of the Endangered Species Act Section 4(d) Rule. NMFS Consultation Number: WCR-2015-3441. National Marine Fisheries Service, West Coast Region. Portland, Oregon.

NMFS. 2016b. Endangered Species Act - Section 7 Biological Opinion and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat (EFH) Consultation for Three Hatchery and Genetic Management Plans for Early Winter Steelhead in the Dungeness, Nooksack, and Stillaguamish River basins under Limit 6 of the Endangered Species Act Section 4(d) Rule. NMFS Consultation Number: WCR-2015-2024.

Scott, J.B., and W.T. Gill, editors. 2008. *Oncorhynchus mykiss*: Assessment of Washington State's steelhead populations and programs. Preliminary draft for Washington Fish & Wildlife Commission. Washington Department of Fish and Wildlife, Olympia, WA.

Warheit, K. I. 2014. Measuring reproductive interaction between hatchery-origin and wild steelhead (*Oncorhynchus mykiss*) from northern Puget Sound populations potential affected by segregated hatchery programs. Unpublished Final Report. Washington Department of Fish and Wildlife.