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Subject: HSRG Review and Comments on the Wallace River HGMP

A sub-committee of the Hatchery Scientific Review Group (HSRG) has reviewed the draft Hatchery Genetic Management Plan (HGMP) recently released by WDFW for the Wallace River. As described in the HGMP, the Wallace River summer Chinook program is consistent with conservation and harvest goals for the Snohomish Basin Chinook populations. The program appears to be well run and monitored. The PNI for the entire Skykomish summer Chinook population has averaged 0.55 from 2006 to 2011 and it averages higher than 0.7 if the Wallace River component of the population (which is heavily influenced by the hatchery program) is not factored in (see data in Table 2.2.2.1). The population clearly meets the HSRG standards for a Contributing population and has the potential to meet Primary standards over time. By moving towards a genetic approach to monitoring and managing hatchery contribution to natural spawning, pHOS, the Wallace program is helping improve the accuracy of broodstock management. The Wallace program is in many ways an example of how a hatchery program can contribute to harvest in a manner that is consistent with conservation goals. We note however, that the population designation (Primary, Contributing or Stabilizing) was not identified.

The hatchery program is described as “Integrated Harvest” and its purpose is “Harvest”. The target size for broodstock is 3,200 fish which includes 225 NORs or 20% of the NORs (whichever is the lower number). The number of NORs taken is designed to safeguard the native Skykomish summer Chinook population, and, in fact, during 2005 to 2011 the percentage of NORs taken for NOB purposes ranged below the 20% (from 9.2 to 17.4%) (see Table 7.9.1). The size of the program is designed to produce a return of 10,000 adults based on the survival rates to adulthood of the released smolts (0.3% for sub-yearlings and 1.4% for yearlings). To date, in order to satisfy the need for harvest, the program has only managed to control pHOS in the Wallace River Chinook portion of the population to between 30 and 50%, resulting in a PNI of less than 0.5 for this section of the population. The program directly affects Skykomish and Snohomish Chinook and incidentally affects three populations of winter steelhead and two of summer steelhead. Interactions between the releases and these populations are held to a minimum by releasing only fully smolted juveniles. Interactions are still being monitored.

The program generally adheres to NPDES guidelines with regard to effluents. There have been a few instances (flood type situations) where particulates did slightly exceed the permitted level. A new effluent settling pond that should correct this problem is being funded. Water intake screens are in compliance with the federal and state criteria established in 1995 and 1996 but the screens are not in compliance with federal criteria mandated in 2011. We could find no statements about what is being done to correct this.

All fish health guidelines and policies are being appropriately applied, whether it be to live fish and eggs or to carcasses.

We find that the program is consistent with HSRG principles and guidelines for broodstock management. With the exception of the screen issue mentioned above, it is also consistent with environmental compliance requirements.

We hope you find these comments helpful.

The image shows two handwritten signatures in black ink. The signature on the left is 'Andy Appleby' and the signature on the right is 'Peter Paquet'. Both are written in a cursive, flowing style.

Andy Appleby and Peter Paquet, Ph.D
Co-Chairs, HSRG