# Hatchery Scientific Review Group Pacific Salmon Hatchery Reform

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HSRG - Washington

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Representative Norm Dicks 1019 Pacific Avenue Suite 806 Tacoma, WA 98402

November 1, 2012

Subject: Review of the Lower Elwha Klallam Tribe Hatchery and Genetic Management Plans (HGMPs)

Dear Congressman Dicks,

The HSRG has reviewed HGMPs submitted by the Lower Elwha Klallam Tribe (for steelhead, chum, pink and coho, dated July 31, 2012) and Washington Department of Fish and Wildlife (for Chinook, dated August 31, 2012). The HGMPs were reviewed for consistency with the comments and recommendation prepared by HSRG, at the request of the co-managers (HSRG, 2012).

The HSRG found that the HGMPs generally are in agreement with the HSRG recommendations and offer the following comments by species. One notable exception however, is in the development of biological triggers for Chinook and Coho. The current HGMPs still do not provide meaningful biological based triggers for progressing through the phases toward recovery as well as triggers for moving back toward earlier phases (see comments in Chinook and Coho sections below). The HSRG is willing to assist in the development of these if desired.

## 1. Steelhead

**General Comments:** Per HSRG recommendation, the current HGMP includes a set of decision rules that incorporate predefined triggers for change for each phase of the project, although development is through the Preservation and Re-colonization phases only. The HSRG also recommended developing and implementing an adaptive management process that describes an annual decision-making process that includes schedule, roles and responsibilities, and decision rules; while the full Adaptive Management Plan was not reviewed, the summary provided in the HGMP indicates that the Plan does (or will) address these issues.

The HSRG recommended development of a monitoring and evaluation plan to resolve uncertainties (to update decision rules) and estimate performance indicators (to measure progress toward goals), and triggers (to implement decision rules). While the full Monitoring and Evaluation Plan was not reviewed, the summary provided in the HGMP indicates that the Plan does (or will) address these issues.

**Early Winter Steelhead Program:** Per HSRG recommendation, this program has been eliminated. The current HGMP has been modified to address issues of continuing harvest to remove returning adults from prior releases. Production goals in terms of VSP parameters and measurable performance indicators are identified and defined through Preservation and Re-colonization phases only.

**Native Winter Steelhead Program**: The HSRG finds that the current HGMP provides a clear statement of goals and measurable criteria for the Preservation and Recolonization Phases and more clearly explains the use of NOR and HOR adults and the out planting of adults has been added to the plan. Triggers for moving between Preservation and Re-colonization, and back have been developed. Local Adaptation and Full Restoration Phases are not addressed.

### 2. Chinook Salmon

The HSRG finds that the HGMP closely follows the HSRG recommendation for the preservation and recolonization phases of the program. We understand that the criteria and "triggers" for the transitions from re-colonization to local adaptation and full restoration phases have intentionally been left undefined, pending further independent science review. We also understand that this review will be completed in 2013 and that biological triggers for these transitions will then be established. We note that the HGMP acknowledges that active broodstock and spawning escapement management during the local adaptation phase will require marking of fish released from hatchery programs.

The HSRG commends the co-managers on the progress made in both actions and planning toward recovery of a naturally spawning Chinook population in the Elwha River.

#### 3. Chum Salmon

The HSRG has no issues with the current HGMP relating to Elwha River fall chum salmon program. All of the HSRG's recommendations are being followed. Specifically, all juvenile releases will be from the hatchery; they will be fed fry (aka, 0-age smolts) and otolith-marked. When adults begin returning in excess of those needed for the hatchery egg-take, the excess will be allowed to migrate up river and even be trucked upriver to areas in its mid-reaches and tributaries considered suitable for chum spawning and juvenile chum rearing. Finally, the long-term goal for the chum population was clearly stated as conservation and harvest, and the triggers for initiating harvest appeared reasonable.

# 4. Coho Salmon

The HSRG finds that the Tribe's HGMP follows most of the HSRG recommendations for the preservation and re-colonization phases of the program. Specifically, all hatchery juveniles will be released from the hatchery and be adipose marked and/or coded wire tagged. Hatchery adults will be transported to the middle reaches of the river and tributaries. The program is sized appropriately and specific triggers for moving between phases are given in some cases.

The HSRG questions the triggers for the transitions between the various recovery phases. The triggers should be based on explicit biological criteria. For example, it is not clear why the hatchery SAR should be trigger for reverting from the re-colonization phase to the preservation phase.

The HSRG is encouraged that the HGMP states that the Tribe and WDFW will evaluate catch efficiency and release mortality for a variety of selective fishing gears with a view to targeting hatchery-origin coho. The HSRG encourages WDFW and the tribe to develop selective fishing gears as rapidly as possible to ensure that both the anticipated harvest and re-colonization objectives can be simultaneously met. Following the five year moratorium, the HGMP indicates "...more substantial commercial and recreational harvest...." in addition to ceremonial and subsistence harvest during the re-colonization phase without regard to the composition of natural spawners and hatchery broodstock. Without selectivity applied to the planned harvest, achieving an NOR population growth rate >/= 1.5 and an NOR population abundance of 500-700 during re-colonization may be impractical.

#### 5. Pink Salmon

The HSRG has reviewed the current HGMP relating to the Elwha River odd- and even-year pink salmon program and has no issues with the intent of the actions described. The purpose of the pink salmon program is Integrated Recovery, with a conservation focus that transitions to a no hatchery alternative in the full restoration phase. The initial goal of this program is to use supportive breeding to preserve the odd- and even- year pink salmon run components in the Elwha River. This includes a supplementation program for both odd- and even-year fish, and additionally a captive broodstock for the native odd-year stock. All hatchery-produced pink salmon will be otolith marked. During the initial Preservation Phase, pink salmon adults produced through the program will not be the target of any fisheries, nor will returning adult fish lead to elevated harvest levels for other salmonid species, including listed salmon and steelhead. A major benefit of increasing pink salmon abundance will be enhanced marine-derived nutrients in the Elwha River ecosystem.

Finally, we hope that sufficient funds will be allocated to the implementation of an effective adaptive management framework, including both monitoring and evaluation components. The HGMPs provide clear direction for the restoration of salmon and steelhead in the Elwha Basin. An effective M&E program is the key to meeting restoration goals over time.

We hope you find this information helpful.

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Sincerely,

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