GRAYS HARBOR

The regional implementation progress report for Grays Harbor was authored by WDFW. WDFW states that the report is based upon co-manager technical discussions, but not policy review or agreement. This region was reviewed by the HSRG in 2003.

HSRG Synopsis and Response

General Description of Region and Hatchery Programs/Issues:

The Grays Harbor region is located along the central Washington coast and contains two major river basins—the Humptulips and Chehalis rivers. The latter is the second-largest basin in Washington state. In addition to stream habitat degradation from timber harvest, estuary habitat has been diminished with port and residential development. There are numerous cooperative salmon rearing programs and five hatcheries (Humptulips, Lake Aberdeen, Bingham Creek, Satsop Springs and Skookumchuck) in the region. Although there are efforts to understand stock status, the origin of naturally-spawning fish and fish used in hatchery brood stocks is often uncertain, due to lack of marking/tagging. The biggest challenge for managers in the region will be developing strategies to operate large programs to meet their harvest needs, while meeting conservation goals for stocks with limited natural habitat productivity.

General Overall Comment about the Co-Manager Report:

Progress has been made in some areas in this region, including goal identification, spawning ground surveying, and identifying hatchery programs as integrated or segregated. However, less progress has been made in implementing hatchery reform in this region than in many others. WDFW cites the time requirements necessary to implement significant capital improvements and limited resources as the principal constraints to complete implementation of HSRG recommendations. The HSRG recommendations have been used to garner funding, and many recommendations have been implemented. One major obstacle is the continued lack of ability to distinguish hatchery- and natural-origin adults. Funding has been identified for marking fish to ascertain hatchery/wild run compositions, beginning in 2006. The comments below do not pertain to steelhead programs. As discussed elsewhere the co-managers are reviewing the HSRG's system-wide recommendations for steelhead and will address them in a forthcoming white paper. Operational recommendations for steelhead have generally been met for all regional programs.

1. Stock goals and the role of hatcheries

a) Are short- and long-term management goals/premises for habitat and conservation and harvest of all regional hatchery- and naturally-spawning salmonid stocks clearly stated? Have specific questions raised in the regional review been adequately addressed?

Goals for all hatchery- and naturally-spawning stocks in this region were identified during the regional review process. The progress report provided by WDFW addressed the

HSRG's program-specific recommendations. Focusing only on those recommendations makes it difficult to assess progress in regard to developing clear stock goals or determining how programs will be managed over time. WDFW states that until fish are marked and adult fish return, clear goals cannot be defined. It is not clear to the HSRG whether WDFW staff in this region clearly understood the distinction between stock goals and hatchery program types (integrated or segregated). The co-managers should clarify goals for all stocks in this region and develop interim plans for operating programs while better information is collected that will allow them to refine stock goals and hatchery program roles.

b) Is the purpose (harvest, conservation, education, etc.) of each hatchery program stated? Have specific questions raised in the regional review been adequately addressed?

Purposes for all hatchery programs in this region were identified during the regional review process. Most questions raised by the HSRG regarding the purposes of hatchery programs have been addressed.

c) Is the program type (integrated vs. segregated) identified and explained for each hatchery program? Have specific questions raised in the regional review been adequately addressed?

Every hatchery program in the region was designated as either integrated or segregated during the regional review process. WDFW reports that these designations are being reviewed for programs across the region, and this may result in major changes.

2. Steps taken (decisions made and actions taken) towards meeting short- and long-term expectations

a) Has significant progress been made to achieve desired hatchery- and naturally-spawning proportions in the hatchery broodstock and on the spawning grounds for integrated and segregated programs?

WDFW has adopted the HSRG's guidelines for integration and segregation. All hatchery Chinook releases in the region will be identified through adipose fin clipping beginning in 2006. This will help to resolve the uncertainty as to the degree of integration in many stocks (Chinook in particular). A process for documenting hatchery and wild coho in hatchery broodstock has begun. Spawning surveys have been increased. Significant strides have been made in identifying stocks via coded wire tagging. Wynoochee Chinook, Bingham late coho, Satsop Springs Chinook, and Humptulips Chinook are now being coded wire tagged. The Satsop Springs Chinook program was 100% marked/tagged, which will allow summer and fall Chinook to be distinguished on spawning grounds and in the hatchery. However, Chinook still need to be mass marked and some stocks need to be coded wire tagged. The HSRG strongly supports WDFW's request for adequate funding to upgrade facilities and on-going management and monitoring of stock composition on the spawning grounds and in the hatchery broodstock. A plan needs to be

developed to establish protocols for hatchery broodstock for Skookumchuck Hatchery after renovation is complete. WDFW has made good use of available funds, including hatchery reform funding, but permanent funding is needed to ensure that the benefits of proper integration and segregation will continue into the future. In particular, resources needed to safely collect and transport natural origin spawners for incorporation in hatchery broodstock must be a high priority.

b) Have steps been taken to size programs consistent with goals for all hatchery and naturally-spawning stocks? Have specific questions raised in the regional review been adequately addressed?

WDFW reports that some hatchery program sizes, such as Satsop River coho and Satsop River late coho, are being reviewed and may be changed. The Wishkah River chum program has been discontinued, as recommended by the HSRG. No information has been provided regarding whether the co-managers have resized or will resize other hatchery programs in this region, including the Wynoochee River fall Chinook program, which the HSRG recommended be suspended. While progress has been made, the managers in this region have generally not developed goals for harvest contribution of hatchery programs explicit enough to specifically size the programs to meet these needs.

c) Have steps been taken to better meet hatchery operational guidelines, from broodstock collection through release? Have specific questions raised in the regional review been adequately addressed?

The co-managers are committed to implementing HSRG operational guidelines. All programs in this region now employ single-pair mating protocols, to maximize effective population size. The spawning protocol of using ten percent jacks for coho will commence in 2005. Stable funding for facilities and operations to sustain hatchery reform over time must be a high priority. For example, funds are needed to improve the handling and sorting of coho and Chinook broodstock at all facilities, in order to allow those programs to operate as properly integrated. Skookumchuck Hatchery is being renovated to meet HSRG recommendations for the upper Chehalis basin programs. A plan for broodstock acquisition needs to be developed for the hatchery upon completion.

3. Steps taken to track progress toward expected outcomes

Please see general HSRG comments about managing for success. The co-managers in this region are working on developing a comprehensive monitoring plan to ensure continued success of their hatchery programs through adaptive management.

a) Will status of major stock goals (e.g. harvest and escapement) be monitored over time?

The co-managers need to agree on and implement a strategy for distinguishing all hatchery- and natural-origin fish in the region.

b) Will contributions of each hatchery program towards its purpose be monitored over time (e.g. contributions toward harvest and escapement)?

The co-managers have made the most of their available resources in this region, however the potential need to expand spawning ground surveys and stock identification sampling programs, in particular, should be reviewed as a part of the development of a comprehensive monitoring plan for the region. Stable funding is needed for long-term monitoring of stock composition on the spawning grounds. The monitoring of hatchery contributions to harvest and natural spawning escapement is critical for tracking the success of both integrated and segregated programs.

c) Will contributions of hatchery-origin fish to broodstock and natural escapement be estimated with sufficient accuracy and precision over time?

It is likely that additional spawning surveys and biosampling will be needed in this region, as in others, in order for adequate accuracy and precision to be achieved.