# Nooksack: TRT Review of 3-Year Work Program

### **TRT Questions**

1. Is their work program consistent with the hypotheses and strategy for their watershed? (The 'work program' includes hypotheses and strategies in the Puget Sound Draft Plan, including the watershed plan, TRT review comments and NOAA Supplement comments).

Yes, the WRIA 1 (Nooksack) work program is consistent with the hypotheses and strategy for their watershed. The WRIA 1 work program builds on the eight major suites of 10-year actions identified in Appendix B of the WRIA 1 Salmonid Recovery Plan and also includes prioritizing actions that the TRT concluded needed more emphasis. When the TRT reviewed the WRIA 1 plan, they noted "one of the strengths of the Plan is its detailed list of habitat recovery objectives and the 10-year and long-term strategies to improve landscape forming processes and habitat conditions."

Of the list of actions, the WRIA 1 work program gives highest priority to actions for early Chinook salmon that are expected to produce quick and significant improvements in the populations. According to the work program description in the Overview document (see "Prioritization of Actions", p.3), these actions primarily fall into those that protect the populations from immediate extinction and that address major limiting factors in the freshwater, especially hatchery supplementation of the South Fork population, habitat restoration in the South, Middle and North forks, and instream flow negotiations in the Middle Fork. These are consistent with known threats and limiting factors to the populations. These high priority actions total over \$17 million, however, and the prioritization does not make it clear which ones are most essential to do in the next three years if not all this money were available. Even though it may be a statement of the obvious, it might be useful to state that actions that prevent near-term extinction or loss of unique population identity, such as the supplementation program or changes in hatchery management for example, are higher priority than other actions.

There are inconsistencies within the Overview document and between the Overview document, the Action Matrix, and Project Descriptions that need to be resolved. For example, in the Overview document (see "Overview of 3-Year Implementation Program") actions such as updating Shoreline Master Programs, mainstem Nooksack reach assessment (stated as 1b or 2 in overview- 1 A in matrix), and public outreach (should be noted in the #9 Other Programmatic Actions in the overview) and adaptive management are also identified as highest priority (1A), although they are not all identified as such in the Action Matrix. In particular, during the 2005 Plan review, the TRT also noted that a major weakness of the Plan was the lack of a developed adaptive management plan. The WRIA 1 work program remains indecisive about the priority of this issue and as a result it is not clear whether completing an adaptive management plan is high priority or not.

2. Is the sequencing and timing of their work program appropriate for the first 3 years of implementation?

The sequencing of the work program appears to be appropriate for the first 3 years, although as noted above, if there were less than \$17 million available, it is not clear which programs the watershed would prioritize and whether the sequence of those would be appropriate. As noted in earlier TRT reviews, the TRT believes that initiating a recovery hatchery program for South Fork Chinook salmon is an immediate, high priority. The program could not only protect the few remaining genetically unique South Fork Chinook against hybridization with straying North Fork or late-returning Chinook but it could also protect against short-term loss of redds as the river changes in response to aggressive efforts to restore large woody debris and pools in the river or other demographic challenges.

3. Are there significant components missing from the work program? If so, what are these and what can be done about them in the 3-year work program or at a regional scale?

The Overview of the work program and the Action Matrix appear to be comprehensive. TRT members were pleased to see that the work program includes a number of actions that will address the TRT's recommendations that the watershed evaluate habitat use and estuarine capacity in the nearshore. Although the Overview of the work program and the Action Matrix identify H-integration actions generally, the watershed provides no real description of these. Particularly in the Nooksack where hatchery actions are important for preventing near-term extinction (see above) and regional and international harvest changes would increase the likelihood of rebuilding the populations as habitat is rehabilitated or restored, additional detail about how these actions are expected to occur is critical to ensure that they are achieved in this timeframe. Although the TRT understands that some of these actions, such as regional and international harvest negotiations and monitoring of the effectiveness of SMPs in protecting habitat and ecological function, cannot be addressed by Nooksack watershed group alone, the uncertainty around making progress on these issues remains high given there is no clear work program at either the watershed or the regional scale.

# Shared Strategy Objectives

#### 1. Improve the level and certainty of protection for habitat and the 22 existing populations?

The Overview identifies updating of shoreline master plans for Bellingham and other Whatcom County cities (note that Bellingham does not appear to be included in the Action Matrix, however) and also conservation easement acquisitions as actions that could provide habitat protection if enforced. Instream flow negotiations are another action that could improve the certainty of protection if they deliver appropriate flows for Chinook salmon. As noted earlier, recovery hatchery programs in the South Fork and North Fork could also provide short-term protection.

## 2. Preserve options for achieving the future role of this population in the ESU?

The supplementation of the South Fork early-Chinook salmon population is the main action item that addresses the need to preserve options for the future role of this population. The

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purpose of this program is to protect the unique, genetic diversity of South Fork Chinook salmon which is threatened by low abundance and straying of North Fork and late-returning Chinook hatchery Chinook salmon.

# 3. Ensure protection and restoration preserves and restores ecosystem processes for Chinook salmon?

Projects focused on restoration in the three major forks of the river are high priority and appear to be developed consistent with the hypotheses and strategies of the plan which is to restore ecosystem function and processes.

#### 4. Advance the integrated management of harvest, hatchery, and habitat?

Integration of the Hs is generally identified as an action in the plan, but lacks the specificity necessary to understand specific actions, likely results or gaps in substance or sequencing.