Stillaguamish (WRIA 5)

Puget Sound Technical Recovery Team Review
September 28, 2006

The TRT reviewed fourteen individual watershed salmon recovery three-year work programs in May 2006. Three questions were addressed. The questions and TRT's review comments on the Stillaguamish three-year work program are below.

1. Is the work program consistent with the hypotheses and strategy for the 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 work program is consistent with the hypotheses and strategy for the watershed. As noted in the work program description, this watershed has spent considerable effort developing watershed hypotheses and protection and restoration strategies based on ecosystem diagnosis and treatment (EDT) modeling. They also refined their approaches based on previous feedback to ensure that their efforts are strategic and sequenced appropriately for both fish and the restoration of landscape-scale processes. This work program continues to use the conclusions of those modeling efforts to guide and prioritize watershed restoration and salmon recovery. The 10-year plan submitted in 2005 is projected to achieve approximately 30% of the recovery goal, and this 3-year implementation plan would keep the watershed on, or slightly ahead of that pace.

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

In general, it appears that the sequencing and timing of the actions in the work program are appropriate. The work program entails identification and restoration of key habitat components in the estuary, log jams, and restoration of natural river banks combined with restrictive harvest management and a hatchery supplementation program to jump start colonization of restored habitats. An aggressive program for protection of existing well-functioning habitats and habitat forming and maintaining processes is missing from this plan however. Such a protection program should be included in the initial part of this watershed's implementation of a recovery plan. Also there will be a need to continue linking specific restoration projects to broader strategies that address habitat forming processes. Specifically it is important in the Stillaguamish to sequence upper watershed and floodplain efforts given the significant disruption that has occurred to water quantity and timing and sediment delivery systems.

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?

Protection of existing well functioning habitats and habitats forming and maintaining processes will be a key to success of salmon recovery in the Stillaguamish basin. Upcoming land use planning milestones are not integrated into the current work program nor is it clear where existing protection efforts are sufficient and where additional funds and efforts need to be directed to address areas found to be insufficient. In general, this watershed's work is very advanced on the technical and project implementation level. Restoration of appropriate streamflow patterns and management of forestry consistent with hydrological processes appropriate for salmon recovery are not directly addressed in this three-year workplan and are key for ultimate achievement of goals in the Stillaguamish. An early focus on the Stillaguamish to address these issues is critical to better leverage local projects and the existing three-year work program.

Comments on how well the work program addresses objectives

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

The work program builds on a successful suite of voluntary protection efforts. Protection and acquisition projects in the tributaries, mainstem, and estuary will contribute to maintaining the production base for the two Chinook populations that spawn in the Stillaguamish system. However, the three-year plan does not address Snohomish County's pending update of the Critical Areas Ordinance and Shoreline Master program. A link to these in this plan would help assure that these regulatory efforts contribute to salmon recovery in the basin. In addition regulations and practices for forest management in the upper watershed greatly affect streamflow and sedimentation patterns throughout the watershed. Unless these activities are more closely coordinated with the objectives of the salmon recovery plan, the protection actions in the lower watershed may not be effective.

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

The work program preserves options for the future role of these populations in the ESU. The plan relies on maintaining the North Fork population through hatchery intervention until the functioning of the watershed is restored sufficiently that the population can sustain itself. Because the South Fork population has not been sustaining itself, the plan includes a program for beginning hatchery intervention there as well. Both programs are clearly focused on restoration of these populations, and harvest is managed consistent with this goal. Because of the dire condition of the South Fork population, the plan includes early habitat protection and restoration actions in the areas most limiting to this population..

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

There is an early emphasis on restoration of estuary and tidal marsh habitats, which will be critical for restoring fundamental ecosystem processes in the Stillaguamish system. Protection and restoration projects in the floodplain will be tied in with a comprehensive floodplain management strategy to be developed by all parties with authority and

responsibility for floodplain management. This effort will be supported by Snohomish County with technical analysis of bank armoring removal and outreach to the agricultural community. Sediment and hydrological processes are addressed through improved landslide remediation and some projects in forestry areas. However, a clear connection with forestry policy is missing. This work is critical given the substantial role that water quantity and timing is playing in population decline. The plan reflects the wide scope of water quality monitoring that is going on in the basin. Much of this will be useful for establishing trends and spatial patterns that will be useful for developing future salmon recovery actions. However, these programs were designed around objectives that do not directly address salmon recovery. To be most effective, they should include objectives that are directly coordinated with the salmon recovery plan.

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

This three-year plan reflects the high level of integration that has already occurred in recovery planning in the Stillaguamish. The hatchery supplementation program is designed to overcome specific habitat limitations in the North Fork. The proposed program for the South Fork is also specific to habitat problems there. The harvest management plan is based on an assessment of the performance of the North Fork Stillaguamish population under current habitat conditions and it takes into account the goals of the hatchery program.