

Puget Sound Partnership 2008 Three Year Work Program Update Nooksack Watershed (WRIA 1)

Introduction

In April 2008, each of the fourteen watersheds submitted three-year work program updates on accomplishments, status of actions, and proposed actions that built on the 2006 and 2007 three-year work programs. These work programs are intended to provide a road map for implementation of the salmon recovery plans and to help establish a recovery trajectory for the first three years of implementation. The 2008 Three-Year Work Program Update is the last of the first three years for implementation since the Recovery Plan was finalized in 2005. As salmon recovery in the Puget Sound is now part of the Puget Sound Partnership's legislative responsibility, the Puget Sound Partnership will perform an assessment of the development and review of these work programs in order to be as effective as possible in the coming years.

The feedback below is intended to assist the watershed recovery plan implementation team as it continues to address actions and implementation of their salmon recovery plan. The feedback is also used by the Puget Sound Recovery Implementation Technical Team (RITT), the Recovery Council Work Group, and the Puget Sound Partnership to inform the continued development and implementation of the regional work program. This includes advancing on issues such as adaptive management and capacity within the watershed teams. The feedback will also stimulate further discussion of recovery objectives to determine what the best investments are for salmon recovery over the next three years.

Guidance for the 2008 work program updates

Factors to be considered by the Puget Sound Recovery Implementation Technical Team in performing its technical review of the Update:

- a. Is the Update consistent with the recovery plan hypotheses and strategy for the watershed's work program?
- b. Is the sequencing and timing of the action in your updated three-year work program appropriate?
- c. Are there significant components missing from the work program? If so, what is missing and what can be done about them in the three-year work program update or at a regional scale?

Watersheds were also provided with the following seven questions, answers to which the Recovery Council Work Group and the Partnership salmon recovery watershed liaisons assessed in performing their policy review of the three-year work program

1. Is the work program consistent with the policy feedback and recommendations from the 2004 documents, Puget Sound Salmon Recovery Plan Volume I, Watershed Profiles – Results section, NMFS Supplement, as well as the regional Nearshore Chapter, where applicable?

2. Is the work program tied to the identified three-year objectives and scheduled to proceed at a pace sufficient to achieve the watershed's ten-year goals?
3. Is the work program narrative tightly linked to individual projects and priorities?
4. Do programmatic actions address protection objectives?
5. To what extent are habitat, harvest and habitat actions integrated and included in the work program?
6. How is the capacity to implement the updated three-year work program addressed?
7. What are the three-year work program objectives and how well does the updated program address them? This includes:
 - Improves the level and certainty of protection of habitat and the 22 existing Chinook populations;
 - Preserves options for achieving the future role of this population in the ESU;
 - Ensures habitat protection and restoration and restores ecosystem processes for Chinook; and
 - Advances the coordinated/integrated management of habitat, harvest, and hatchery.

I. Puget Sound Recovery Implementation Technical Team Review

The RITT reviewed each of the fourteen individual watershed chapter's salmon recovery three-year work program updates in May and early June 2008. Three primary questions were addressed along with additional regional questions. The questions and the RITT's review comments are below.

Nooksack (WRIA 1) Watershed

The WRIA 1 Salmon Recovery Board provided the 3-Year Implementation Plan, which included a matrix of prioritized habitat projects and project descriptions, and the 2008 WRIA 1 Salmon Recovery Program Work, which described programmatic task associated with habitat restoration and acquisition, hatchery management, harvest, and adaptive management. The WRIA 1 Salmon Recovery Board improved the organization and documentation of the habitat actions in the work program significantly in 2008. In addition, the 2008 WRIA 1 Salmon Recovery Program Work Plan provides a detailed and useful description of the expected sequence, timing, anticipated 2008 "milestones" (i.e. implementation benchmarks), and current status of habitat projects, assessments, acquisitions; hatchery actions; harvest actions; monitoring; and program coordination and administration. These changes refine and improve the 3-Year Work Program without significantly altering direction. The original 3-year plan was revised to account for habitat projects that were not initiated, projects that had been completed, projects that were removed from the list because they were considered infeasible (6), and projects that were added to the list (7). Consequently, many of the TRT comments from 2006 and 2007 still apply and some are repeated below.

RITT Questions

- 1. Is the update of the work program consistent with the hypotheses and strategy for their watershed? (The 'work program' includes hypotheses and strategies in the Puget Sound Recovery 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.”

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. These actions primarily fall into those that protect the populations from immediate extinction and that address major limiting factors in the freshwater. These include development of a captive brood stock program for the nearly extinct South Fork population, habitat restoration in the South, Middle and North forks, and developing a implementing a funding strategy to restore passage at the Middle Fork Diversion Dam. These are consistent with known threats and strategies for addressing key limiting factors to the populations.

The TRT has strongly supported the use of artificial propagation to keep the South Fork early Chinook salmon population from becoming extinct. Although not indicated in the work program, this 3-year work program objective was seriously set back this spring by the difficulty of capturing the few returning adult spawners that returned to the river. As the 2008 work program shows, however, South Fork technical work group responded adaptively and implemented an alternative—capturing juveniles and using DNA techniques to identify South Fork fish that could be raised for brood stock.

- 2. Is the sequencing and timing of the actions in the updated work program appropriate for the third year of implementation of the Puget Sound Recovery Plan?*

The sequencing of the work program appears to be appropriate for the first three years. The WRIA 1 Salmon Recovery Board has implemented actions to address the TRT's earlier suggestions to protect the South Fork population. Although the habitat restoration activities such as those listed in the implementation plan are important in all the forks of the Nooksack River, for the North Fork population a key major recovery action is restoring passage to the Middle Fork. The work program identifies actions and milestones for 2008 to continue progress towards that objective

- 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 update or at a regional scale?*

The habitat implementation plan matrix and the work program appear to be thorough and generally comprehensive. Several areas could use some improvement.

Hatchery Actions – Straying of North Fork early Chinook salmon from the Kendall Creek Hatchery recovery program and of fall Chinook salmon remains an important and immediate threat to the South Fork population. The work program identifies a task of evaluating the risk of fall Chinook salmon straying (and I presume also an evaluation of strategies to reduce the risk) but does not identify a similar task for North Fork straying.

Adaptive Management – The WRIA 1 Recovery Chapter like most other watershed chapters in the Puget Sound Recovery Plan did not have a completed section on adaptive management and monitoring. The work plan identifies actions and 2008 benchmarks for developing these plans and beginning to implement them. This is an improvement from last year, but it is not clear what the sequence is and more importantly whether the WRIA 1 Salmon Recovery Board will need additional resources and capacity.

H-Integration – The work program identified actions that should be useful in achieving H-integration but did not address H-integration as a significant action. Especially in the Nooksack where hatchery actions are important both for preventing near-term extinction (see above) and providing economic and cultural benefits and yet are also the source of other significant risks and where 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. The uncertainty around making progress on these issues remains high given there is no clear work program to integrate these at either the watershed or the regional scale.

Puget Sound Partnership Questions

- 1. Does the update provide information on improved level and certainty of protection for habitat and the 22 existing populations?*

The update does not provide qualitative or quantitative information on whether the level and certainty of habitat protection is improving, staying the same, or declining. The habitat action matrix is a mix of mostly restoration projects with some acquisition projects. In this year's changes to the 2008-2010 3-Year Implementation Plan, two potential protection projects—the perpetual CREP and purchase of development rights from Sierra Pacific Industries (South Fork Forests Forever) were removed from the list because they were considered currently infeasible. However, the acquisition of 90 upland acres and 40 tideland acres at Lily Point were completed. The work program also identifies updating of shoreline master plans and critical area ordinances as on-going activities to protect existing ecological function. Instream flow negotiations are another action that could improve the certainty of protection if they deliver appropriate flows for Chinook salmon.

2. *Does the update provide information on preserving options for achieving the future role of this population in the ESU?*

The captive brood stock program for the South Fork early-Chinook salmon population and the supplementation program for the North Fork early Chinook salmon population directly address the need to preserve genetic options for the future role of this population. The Puget Sound TRT (now the RITT) also considers a well-planned and implemented adaptive management program a key part of preserving future options. As noted above, this remains an important area for improvement.

3. *Does the update provide information on ensuring protection and restoration for 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. *Does the update provide a high level of protection and restoration for ecosystem processes for multi-species?*

The work program indicates that the habitat restoration and protection projects in the Nooksack River should benefit other species of salmonids but it does not provide enough information to determine whether this is a “high” level.

5. *Advance the integrated management of harvest, hatchery, and habitat?*

Integration of the Hs is generally identified as an action in the plan, but as noted above, the work plan lacks the specificity for developing this further to understand the necessary magnitude of specific actions, likely results, or gaps in substance or sequencing.

II. Policy Review Comments

The Recovery Council Work Group, an interdisciplinary policy team, evaluated each of the fourteen watershed work plans. In addressing the questions identified above, the interdisciplinary team noted accomplishments and strengths as well as gaps and issues warranting special attention. The team assessed each of the watersheds’ three-year work plans, as well as the general themes that applied across the region. The general comments addressing common accomplishments and opportunities for advancement are discussed below as well as specific comments for the Nooksack watershed.

General Comments for 2008 Three-Year Work Program Updates

The 2008 watershed three-year work program updates reflect advancement in terms of project and programmatic identification. Watersheds received capital and non-capital funding through the 2007 biennial budget process, providing a significant increase in resources relative to previous years. Despite these gains, both in funds and in work program, many of the watersheds continue to have gaps, to varying degrees, that were identified in the NOAA supplement as well

as the 2006 and 2007 work program reviews. Regional assistance to the watershed planning and implementation teams will be needed to address how best to fill the needs identified below.

Work Plan Accomplishments, Status Updates, Sequencing and Prioritization: As identified in 2007, work program updates are a useful tool for defining progress toward recovery plan goals and ESU-wide recovery. Narratives should continue to be refined to provide a sharper focus on what each watershed expects to accomplish within the three-year period. These narratives should also document what projects have been successfully completed, what programmatic actions are underway, and how successful the watershed has been in implementing the previous year's work plan. This includes documenting how the funds of the previous year are being applied for both on-the-ground projects and capacity within the watersheds.

Work program updates can be strengthened by providing a more focused description of how needed recovery projects and actions are identified, developed, prioritized and sequenced. It is also important that the narrative provide sufficient information to enable watershed teams and regional reviewers to determine whether the pace of implementation is appropriate to achieve each watershed's ten-year goals and if not, to be able to identify the types of changes necessary to get them on pace. This can include information on adaptive management, status updates on actions, and monitoring data.

Integrated Management of Habitat, Harvest and Hatcheries: All Puget Sound watersheds' work programs would benefit from additional efforts and regional resources to achieve H-Integration. Several watersheds advanced their understanding and application of the six steps of H-Integration during 2007 through the strong support of co-manager resources. It is noteworthy that there is a strong connection between full co-manager engagement within the watershed context and significant progress toward salmon recovery implementation. By the end of 2008, it is anticipated all watersheds with Chinook populations will be engaged in actions that reflect an integrated management of habitat, harvest, and hatcheries for Chinook recovery. The Puget Sound Partnership and RITT liaisons will continue to assist those watersheds without independent Chinook populations to integrate management and capacity of the nearshore to sustain natural and hatchery-origin populations of all salmonids. As integration advances, it will be important for each watershed to document how their actions are integrated and advancing in the work programs.

Monitoring and Adaptive Management: At the end of 2007, Shared Strategy staff along with a work group of technical experts completed a regional draft monitoring and adaptive management plan. The completion of this draft plan included a workshop and a gathering of comments on the plan. Since the completion of this draft plan, the Puget Sound Partnership has officially assumed responsibility for completing a regional adaptive management and monitoring plan, including the monitoring of fish populations and the tracking of implementation and effectiveness of actions identified in the Chinook Recovery Plan. At the regional scale, several actions have been initiated to advance adaptive management, including: 1) a pilot program directed at developing an implementation tracking system at both the watershed and regional scale; 2) a status and trends approach for Washington State, which includes directed resources for the Puget Sound; and 3) an accountability system to identify and hold responsible the appropriate entities at the local, regional, state, and federal levels.

Some watersheds have already begun developing their own monitoring and adaptive management frameworks and initial monitoring tasks. The regional team working on the diverse aspects of adaptive management will coordinate with those watersheds to ensure that the monitoring and adaptive management plans are consistent and complementary. During this transitional time, the Puget Sound Partnership staff, the work group, and the RITT acknowledge that they play an important role in providing assistance to all of the Puget Sound watersheds to advance in their development, refinement, and implementation of an adaptive management and monitoring approach. This is important in order to enable watersheds and the region to assess progress in reducing uncertainties in the population and ESU-wide recovery.

Protecting and restoring ecosystem processes for Chinook and other species by preserving options and addressing threats are critical components of recovery planning both at the local and regional scale. The Chinook Recovery Plan is predicated on the assumption that existing habitat will be protected. Regional work to assess this assumption and to strengthen the regulatory framework is underway through the San Juan Initiative and through the Action Agenda work of the Puget Sound Partnership. Initial findings and recommendations from the San Juan Initiative are expected by the end of 2008. The Action Agenda will be completed by December 2008.

Recovery actions are continuing to become more complex and expensive. All watersheds are challenged in terms of their capacity to acquire land in order to secure future options and to implement large-scale, multi-year projects. It will be important for watersheds to coordinate and partner with other groups, organizations, and agencies locally and regionally to increase capacity and enhance their ability to successfully identify and implement habitat acquisition and restoration efforts. Increased capacity for the key participants in watershed recovery efforts is essential to successfully implement their recovery chapters and protect and restore the ecosystem processes that Chinook and other species require. The Puget Sound Partnership staff and the work group members acknowledge that additional efforts will be needed at the regional scale to assist in securing on-going resources for the watershed groups to protect and restore ecosystem processes.

Water quality and Water quantity: Water quality and water quantity will continue to be important issues for the long-term recovery of all populations within the ESU.

Work on water quality issues is associated with both urban and rural sources. The authority to address these sources is within the purview of the Washington State Department of Ecology and is primarily being addressed through the NPDES permit program, the establishment of TMDLs under the Clean Water Act, and the Forest Practice Rules. It is important to apply these programs and resources in a manner that supports the watershed groups and advances the recovery of salmon in their areas. It is recognized that emerging water quality threats to the health of Puget Sound (e.g. endocrine disruptors) are not adequately addressed under current regulatory regimes and significant new resources are needed to identify and resolve these threats. Watersheds continue to play an important role in ensuring that local jurisdictions implementing these permits adopt water quality programs that include actions and regulations that protect and enhance water quality in rivers and streams critical for salmon recovery.

Work on water quantity issues is also important at both the regional and local watershed scale. At the regional level, the Water Quantity Sub-Committee, coordinated by the Washington State Department of Ecology, is working on advancing the science on instream flows and viable salmon populations (VSP). In May of 2008, the Water Quantity Sub-Committee held an instream flow and VSP workshop to discuss the current state of instream flow/VSP science and flow assessment tools, and to identify and develop a future science agenda for instream flow/VSP work over the next five to 10 years. The workshop also focused on trying to determine the appropriate scale for flow assessment tools and VSP concepts. Additionally, the impacts of climate change will need to be assessed and integrated into salmon recovery planning on a regional scale.

Locally, watershed groups can help move these issues forward in a manner that reflects their priorities for salmon recovery. Each watershed should consider (1) advocating for appropriate instream flow rules in places where they are needed; and (2) working with the Department of Ecology to begin creating protection and enhancement programs (PEPs) in areas where instream flows hinder the recovery of fish populations.

The RITT and the Puget Sound Partnership liaisons will continue to assist watersheds in advancing water quantity and water quality actions.

Nearshore Habitats and Processes: There continues to be a need to advance our understanding of nearshore habitats and processes associated with Chinook recovery. Several nearshore fish presence assessments were funded through the 2007 biennial budget and SRFB round. These assessments are a crucial step in advancing our knowledge of salmonid use of the nearshore and nearshore processes. The Puget Sound Partnership and RITT liaisons recognize the need to support these watersheds in translating the assessments into protection and restoration projects. The Puget Sound Partnership and the work group also acknowledge that we need to increase the scientific certainty regarding sequencing and prioritizing which nearshore areas to protect across the Puget Sound. Finally, we need to develop a standardized framework to not only monitor nearshore fish presence, but to also assess fish utilization of those areas.

Multi-species planning: The Puget Sound Steelhead were listed in May 2007 and a NOAA-appointed Technical Review Team (TRT) is working to define the population and habitat criteria for the listing. This information is anticipated to be available in March 2009. The Puget Sound watersheds will play an instrumental role in sequencing and prioritizing actions across multiple species in order to gain the highest ecosystem benefit. NOAA, the co-managers, and the watersheds are currently discussing options for Puget Sound Steelhead recovery planning. It is expected that the planning process will be defined by the end of 2008. Resources are needed to support the watersheds in steelhead planning over the next several years.

Nooksack Watershed-Specific Comments

The Nooksack Watershed continues to advance on their implementation of the recovery plan through a thoughtful approach detailed through their Three-Year Work Program and their annual Program Work Plan. The 2008 submittal is a continuation and refinement of the 2006 and 2007 work programs.

Significant Advancements

- Clear description of the status of actions and the expected sequence and timing of actions;
- Continued progress on the coordination among entities through the WRIA 1 Salmon Recovery Program for implementation of the recovery plan;
- Identification and description of regulatory and non-regulatory actions to advance habitat protection;
- Identification of the steps needed to establish a functioning adaptive management and monitoring program;
- Continued clarification on the status of actions and decisions being made in order to implement salmon recovery within the Nooksack Watershed.

Issues Needing Advancement

- The South Fork Chinook population is a regionally significant population that necessitates continued attention and resources to successfully implement a captive brood program and eventual population recovery;
- Continue to advance and document the decision-making associated with adaptive management for the implementation of the salmon recovery plan;
- Continue to identify and clarify what type of capacity support is needed across the watershed in order to advance implementation of the recovery plan. This includes, but is not limited to identifying how the existing capacity funds are being directed towards priority areas as well as providing information on the needs for additional support.