

**Puget Sound Partnership
2008 Three Year Work Program Update
Puyallup/White and Chambers/Clover Creek Watersheds**

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.

Puyallup/White and Chambers/Clover Creek Watersheds

The 2008 update to the Three-Year Implementation Plan for the Puyallup/White and Chambers Clover Creek Watersheds addressed many of the concerns and questions as well as implemented numerous recommendations made by the Puget Sound Technical Recovery Team (PSTRT) on the 2007 work program. The Narrative was helpful to follow the projects, programs and assessments that were added or deleted from the project list. It is encouraging to see that the watershed has expanded the prioritization process and has plans to continue in 2008. As mentioned in previous reviews of this watershed and other watershed's three-year lists, sequencing and timing of projects becomes increasingly important as these plans continue implementation.

Puget Sound Recovery Implementation Technical Team Review

1. *Is their work plan consistent with the hypotheses and strategy for their watershed?*

Yes, the 2008 update provides additional information and progress towards implementation of the watersheds strategies in their Recovery chapter. Several projects were added and assessments initiated to address some of the PSTRT's concerns and comments in their 2007 review. The inclusion of additional riverine and estuarine floodplain corridor acquisitions as well as the funding of other previously listed projects is encouraging for implementation of this

important recommendation from the PSTRT. Completion of the draft levee setback feasibility study in April 2008 is a positive step towards the prioritizing the acquisition of riverine floodplain corridors. In addition to the two new sites that were added to the 2008 Three-Year Update, additional reaches, areas and/or specific parcels need to be identified and prioritized as well as the potential threats to these areas. The Recovery Implementation Technical Team (RITT) recognizes the cost and time necessary to implement these actions makes developing a long-term strategy a high priority.

Flows remain an issue not only for the White River but other rivers throughout the Puget Sound Evolutionarily Significant Unit (ESU). The RITT is currently working on a framework for linking flow to viable salmon population (VSP) parameters. This document should be available for review by the watersheds sometime in 2008. The watershed should continue to follow the Department of Ecology's process and decision to establish instream flows and the development of the Habitat Conservation Plan (HCP). Establishing instream flows and restoring sufficient flows to reestablish watershed processes should remain a high priority for the watershed. The update suggests this HCP could use some assistance from the Puget Sound Partnership (PSP) and the Services. It is assumed that the Services will work with Puget Sound Energy (PSE) in HCP development.

It is encouraging that the White River Spring Chinook are increasing. As one of the populations identified by the PSTRT that needs to achieve low risk status, it is important that a robust strategy to protect this population is established. The watershed Technical Advisory Group (TAG) is encouraged to continue to work through the H-Integration process and AHA modeling to further this strategy. The RITT understands that the TAG is still in the early stages of the H-Integration process for the White River and that near-term goals and some near-term actions have been identified for the Puyallup Fall Chinook. As the TAG works through the Six-Steps to advance H-Integration it will become important to document the process and outcomes for both Chinook populations using guidance provide by the Washington Department of Fish and Wildlife (WDFW).

In a highly developed estuary such as Commencement Bay it is challenging to implement an ecosystem-scale restoration plan, but as mentioned in the update, the watershed acknowledges that it remains a missing component of the update from the 2007 PSTRT review. The inclusion of projects within Commencement Bay and the Puyallup estuary in the 2008 Three-Year Work Plan Update should be included in the development of a prioritized estuary ecosystem restoration action plan. Without a strategy for restoration within the estuary, the overall effectiveness of these and other actions may not reach their full potential. The RITT encourages the watershed to make the development of an estuary action plan a top priority for 2008.

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

The Watershed acknowledges the Three-Year Work Plan Update lacks a monitoring and adaptive management program as well as an approach for sequencing and timing actions. As the two Chinook populations begin to respond to implementation of actions outlined in the three-year list, the timing and sequencing of actions across all of the "H"s will become increasingly

important. The outcome from the H-Integration Work Group's completion of the Six-Steps for the advancement of H-Integration should help to organize potential population response as it relates to the VSP parameters.

As with this and other work plans it is important to identify a sequence and timing of actions as well as the monitoring of actions outside of this planning process that may eliminate future opportunities to implement work plan actions. This is no easy task. The RITT encourages this and other watersheds to be diligent in addressing increasing development pressures within Puget Sound. It is anticipated that continued development could place significant constraints on future recovery opportunities. NOAA Fisheries is currently working on a Risk Analysis Framework for the Puget Sound Ecosystem (www.psp.wa.gov/aa_status_threats.php) to address some of these threats. The process is currently qualitative and looking at the current status of ecosystem goals and conducting a threats assessment to determine the threats facing each goal. As this process continues, it is hoped that it will assist the watersheds in identifying threats and a sequencing of actions to determine which actions may need to be completed first.

- 3. Are there significant components missing from the work plan? If so, what are these and what can be done about them in the 3-year work plan?*

Yes, the watershed identifies several components missing or lacking in the current work plan. These include the development of an estuary action plan, a monitoring and adaptive management program and an approach for sequencing and timing of actions. Additional thought and effort should be given to these missing components and a timeline developed to complete these missing components.

Monitoring and adaptive management are key to determine if the capital and non-capital actions proposed within any three-year work plan are achieving recovery goals. Now that a draft regional Monitoring and Adaptive Management Approach (MAMA) for the Puget Sound Chinook Recovery Plan is completed, it is proposed that the Puget Sound Recovery Implementation Technical Team (RITT) review this document. In addition to the MAMA document, the WDFW has been working with a consultant and numerous stakeholders on the development and implementation of the Habitat Work Schedule (HWS). The HWS should be a helpful tool to monitor implementation of the recovery plan.

The TAG's progress on H-Integration will be helpful in designing a comprehensive adaptive management plan, as well as the proper timing and sequencing of actions. In addition to the Six-Steps of H-Integration and guidance from the MAMA documents, the HWS can be a useful tool to start organizing the actions identified in the update and their implementation. It is anticipated that all watersheds are in the process of inputting projects to HWS, which will help monitor implementation of actions identified in the work plans.

Puget Sound Partnership Questions

- Does the Update provide information on the improved level and certainty of protection for habitat and the 22 existing populations*

The level of certainty surrounding the protection of habitat within these and other watersheds is a complex issue. The numerous capital and non-capital activities proposed within this update is an aggressive attempt to increase the certainty of improving the VSP parameters for these populations. It is hoped that similar proposals by the other watersheds will improve conditions for all 22 populations within the Puget Sound ESU. Capacity and funding are two significant uncertainties surrounding recovery implementation. Although all of the actions have an associated likely sponsor, several of the actions identified within this update do not have potential funding source(s) necessary to implement the project. It is assumed that the proposed actions with an identified sponsor and funding source will have a higher certainty of implementation over those that do not.

- *Does the Update provide information on preserving options for achieving the future role of this population in the ESU?*

Yes, the update identifies the White River Spring Chinook as the only remaining early-run population in the South/Central geographic region, which needs to achieve low risk status to meet the ESU recovery goals. Through EDT modeling the TAG identified the current parameters for recruits per spawner, capacity, equilibrium, and the reduction of the life history Diversity Index (DI) as well as some of the major causes to these current conditions. Similar to the results for the Puyallup River Fall Chinook, using this information and continued discussions within the watershed, adoption of population recovery targets for the White River Spring Chinook is a priority.

To improve, identify or preserve options for the future role of the populations as it relates to the overall ESU, it will be important to identify the proper sequencing of actions between the “H”s through the continued efforts of the TAG. The role of adaptive management and establishing triggers and management decisions associated with those triggers will also help identify options or contingency plans as implementation of the Recovery Plan moves forward.

Completion of the 2008 draft levee setback feasibility study should be used to identify additional areas for protection and future restoration. The 2008 Three-Year Work Plan Update describes some of the existing and newly proposed projects for protection and restoration. These two new feasibility study areas in conjunction with the other restoration and protection areas are a starting point for improving channel stability, off channel habitat and habitat diversity. As stated in the 2008 Three-Year Work Plan Update levees and other hydromodifications are associated with the degradation of these attributes. Additional areas should be included to determine the feasibility of levee removal or setback to reconnect these rivers with their floodplain.

- *Does the Update provide information on ensuring protection and restoration of ecosystem processes for Chinook salmon?*

Yes, the broad capital and non-capital or programmatic actions in this update provide for a comprehensive approach to improve the larger watershed and ecosystem processes. Due to the nature of programmatic actions (non-capital) they rely on the education of the public and their willingness to implement as well as take advantage of incentives and opportunities. The willingness of the people in Puget Sound to implement the necessary projects, programs and

policies necessary to recover Chinook salmon is essential to ensure the protection and restoration of the ecosystem processes.

- *Does the Update provide a high level of protection and restoration for ecosystem processes for multi-species?*

Yes, the WRIA 10/12 Three-Year Work Plan includes numerous projects and non-capital programs identified as having primary and secondary benefits to multiple species including several salmonids and cutthroat. The prominent projects identified for Chambers Creek are the Chambers Creek Adult Trap and Juvenile Acclimation Facility Improvements and the Smolt trapping. Although the primary and secondary species benefiting from adult trap and juvenile acclimation facility improvements are not specifically called out in the table the project description indicates the acclimation ponds are used for smolts and the adult holding facility will be used for returning Chinook. The primary species benefiting from the smolt trapping activities on Chamber Creek are steelhead with secondary benefits to other salmonid species.

The update also includes analysis and projects for the Chambers-Clover Creek Watershed (WRIA 12). As stated in this Update the ability of the Chambers-Clover Creek system to support naturally spawning populations of Chinook is questionable. Based on the TAG's work with EDT the lower portion of the system may have historically provided habitat for Fall Chinook. The system currently supports several species of salmonids including coho, chum, and steelhead. Although Chinook are not currently naturally occurring in this watershed, several hatcheries and facilities operated in this watershed collect and rear fall Chinook as well as other salmonids. As the TAG proceeds through the H-Integration process these facilities should be included in the evaluation.

The TAG has completed an EDT analysis of the Chambers-Clover system for coho. This analysis identified a historic production potential that exceeded 12,000 returning coho with a productivity of approximately 36 recruits per spawner. The system currently supports about 700 returning coho with a productivity of approximately 7.8 recruits per spawner. Coho are not an Endangered Species Act (ESA) listed species, however, they are an important species within the Chambers-Clover Creek watershed and other watersheds throughout Puget Sound. The watershed has identified coho in the Chambers-Clover Creek system as a priority. This system currently has the highest productivity for any of the four watersheds analyzed using EDT. As the Puget Sound Partnership process moves forward it will become increasingly important to identify how projects and non-capital programs primarily directed at Chinook have secondary benefits to other salmonids as well as actions that may be primarily directed at other salmonids including the recently listed Puget Sound Steelhead.

- *Advance the integrated management of harvest, hatchery, and habitat*

It is encouraging to see the inclusion of a Hatchery capital improvement project in the 2008 Three-Year Work Plan. It is hoped that as the H-Integration process advances other hatchery and harvest actions. The update provides a suite of actions organized by limiting factor, watersheds, areas within watersheds, or other components, such as H-Integration. As the H-Integration process moves forward, a combination or suite of properly sequenced actions across the "H"s

will be necessary to ensure the maximum effectiveness for all site specific or programmatic actions. A comprehensive suite of actions should include components from all three “H”s not just within each a specific “H” to address a specific limiting factor.

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 Puyallup/White and Chambers/Clover Creek 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.

Watershed-Specific Comments

The Puyallup/White and Chambers/Clover Creek Watersheds Three-Year Work Plan Update is a coordinated effort through the Lead Entity to further salmon recovery, focusing specifically on advancing H-integration, developing and prioritizing projects, using analytical work to further protection and restoration, and engaging in education and outreach.

Significant Advancements

- Use of analytical work to reduce uncertainties related to protection and restoration (e.g., levee setback feasibility study, AHA modeling, etc.).
- Advancement H-Integration (use of AHA modeling and work of H-Integration group, including Pierce County, WDFW, Puyallup Tribe, and Muckleshoot Tribe).
- Developed project tiering strategy to be applied to all projects starting in 2009.
- Good progress made on outreach and education planning.

Issues Needing Advancement

- Identify, develop, and document a strategy for addressing capacity needs.
- Prioritize programmatic action.
- Develop a monitoring and adaptive management plan.