

**Puget Sound Partnership  
2008 Three Year Work Program Update  
Lake Washington/Cedar/Sammamish Watershed (WRIA 8)**

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.

### **Lake Washington/Cedar/Sammamish Watershed (WRIA 8)**

The 2008 update to the Three-Year Implementation Plan for the Lake Washington/Cedar/Sammamish Watershed, which includes the WRIA 8 reply to the NOAA-Technical Review Team (TRT) 2007 review of the 3-year list, addressed many of the concerns and questions as well as implemented numerous recommendations made by the PSTRT on the 2007 work program. Continued coordination with the co-managers through the H-Integration Work Group will be necessary to evaluate the implementation of habitat restoration projects. This should also include passage issues at the Hatchery Intake Dam and the Issaquah Hatchery's implementation of the Hatchery Scientific Review Group's (HSRG) performance standards for integrated hatcheries. The progress made by the H-Integration Work Group is very encouraging and will help to resolve some of the sequencing and timing issues surrounding the proposed restoration projects on Issaquah Creek and other areas throughout the watershed.

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

Yes, the work plan update is consistent with the goals and strategy of the Lake Washington/Cedar/Sammamish Watershed salmon recovery plan chapter. The H-Integration Work Group has made significant progress completing the first steps of the six-step H-Integration process outlined by the Washington Department of Fish and Wildlife (WDFW). It is my understanding that the

group has completed the first two steps and is in the process of working through Step 3 to develop common goals and a set of outcomes across the H-sectors. The inclusion of H-integration as part of the Adaptive Management and the Issaquah Integrated Fish Passage under Hatchery Capital Projects are initial steps towards updating the 3-Year Work Program so that it is consistent with the hypotheses and strategies in the watershed's recovery chapter.

In this update it is evident that additional capital projects have been identified for Issaquah Creek, which is consistent with the watershed's strategies. It is evident that some capital projects or non-capital programs have been added in other areas and as described in the update's Epilogue, however, some capital projects have been removed from the three-year list. It is difficult to identify new line items that have been added or to give credit for projects or programs that have been completed or implemented since last years update.

Flows remain an issue not only for the Cedar River but other rivers throughout the Puget Sound Evolutionarily Significant Unit (ESU). The RITT is currently working on a framework for linking flow to salmon population viability. This document should be available for review by the watersheds sometime in 2008. The watershed should continue to monitor the Instream Flow Committee concerning flows associated with the Cedar River Habitat Conservation Plan (HCP). Establishment of instream flows and restoration of sufficient flows to reestablish watershed process should remain a high priority for the watershed.

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

Although the three-year list clearly identifies the sequential steps and funding necessary to implement individual line items and the likely end date, the sequence or timing between line items should also be evaluated. As the H-Integration Work Group continues to work through the six-steps in advancing H-Integration it is hoped that the sequencing and timing of site specific capital projects and non-capital programs, assessments, and monitoring can be refined. A clear understanding of each action and how it works with or against all of the "H"s will be an important step to maximize the effectiveness of the watershed's work plan.

As mentioned above and in the 2007 TRT review of the previous work plan, as the two 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 Viable Salmonid Population (VSP) parameters. This process should identify capital and non-capital projects for hatcheries and harvest actions that may improve overall effectiveness.

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 WRIA 8 and other watersheds to be cognizant of the increasing development pressures across Puget Sound. It is anticipated that continued development could place significant constraints on future opportunities for recovery. NOAA Fisheries is currently working on a Risk Analysis

Framework for the Puget Sound Ecosystem ([www.psp.wa.gov/aa\\_status\\_threats.php](http://www.psp.wa.gov/aa_status_threats.php)) to address some of these threats. The process is 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 developing 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?*

As plans are implemented, monitoring and adaptive management become an important component of any Three-Year Work Plan and the overall Recovery Plan. Now that the Puget Sound Shared Strategy has completed and posted the draft regional Monitoring and Adaptive Management Approach (MAMA) for the Puget Sound Chinook Recovery Plan, it is proposed that the RITT review this document. In addition to the MAMA document, 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 and should be included within this and future updates to the three-year implementation plan.

The “Fish-in-Fish-Out” monitoring conducted by the watershed, and included in the 2008 update, provides important and encouraging information on the two populations within this watershed. The PSTRT recommended, and the RITT supports the recommendations, that development of an adaptive management plan is critical to determining effectiveness and identifying trends. A difficult but necessary component of an adaptive management plan is the development of hypothesis-derived triggers that help to inform early implementation actions and guide long-term actions and decisions that can affect the VSP parameters.

The progress from the H-Integration Work Group will be helpful in designing a comprehensive adaptive management plan, which may use several tools. In addition to the six-steps for H-Integration outlined by WDFW 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.

### Puget Sound Partnership Questions

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

As stated in this update, as well as the WRIA 8 Recovery Plan, the Cedar River population is a slightly higher priority within this watershed. The WRIA 8 response to the TRT concerns surrounding the proposed improvements to Issaquah Creek were greatly appreciated and provided an explanation of the process and rationale used by the Technical Committee when evaluating and proposing these improvements. Continued fish-in-fish-out monitoring within the watershed will be necessary to monitor the assumptions associated with this rationale as well as providing important information to continue or alter these actions through the adaptive

management process. As mentioned in the previous section, establishing hypothesis-based triggers will be an important component to this monitoring effort.

The level of certainty surrounding the protection of habitat within this and other watersheds is a complex issue. The numerous capital and non-capital activities proposed within this update are an aggressive attempt to improve the certainty of improving the VSP parameters for these two populations. It is hoped that similar proposals by the other watersheds will improve conditions for all 22 populations within the Puget Sound ESU. As with all updates, capacity and funding are two significant uncertainties surrounding implementation. Although all of the projects or actions have identified a likely sponsor, several of the actions identified within this update have yet to identify the 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 actions without an identified funding source(s).

The workshops and meetings conducted by the WRIA 8 Implementation Committee on improving lake shoreline habitat as well as the analysis of the overlap between the WRIA 8 Plan recommendations and other regional planning efforts are the first steps towards working within Action Areas and the ESU to provide the information necessary to improve the level and certainty of protection for habitat within and amongst the 22 listed Chinook populations in the Puget Sound ESU. The non-capital programmatic actions identified in the three-year list are encouraging efforts towards working with and educating the public for the types of actions that are needed throughout Puget Sound to recover not only Chinook salmon but also the improved health of the Region.

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

To improve, identify or preserve options for the future role of the two populations as they relate 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 H-Integration Work Group. The role of adaptive management and establishment of triggers and management decisions associated with those triggers will also help to identify options or contingency plans as implementation of the Recovery Plan moves forward. These two processes are important process for the identification and preservation of options.

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

The broad capital and non-capital or programmatic actions in this update provide for a comprehensive approach to improve the larger watershed or ecosystem processes. Due to the nature of programmatic actions, they rely on public education and willingness to implement as well as take advantage of these incentives and opportunities. The willingness of the people in Puget Sound to implement the projects, programs and policies necessary to recover Chinook salmon is essential for the protection and restoration of the ecosystem processes that create the necessary habitat. The non-capital programs such as outreach and education, incentives and

innovative approaches to encourage implementation of the plan will need political support to ensure they are successful.

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

Although not specifically discussed in the narrative portion of this update it is the understanding of the RITT that the WRIA 8 Recovery Plan is an ecosystem or watershed process-based plan focusing on Chinook, but it is assumed to be beneficial for the protection and restoration of these processes for all salmonids. For example, the update identifies a project at the mouth and lower reaches of Ebright Creek that is identified as benefiting non-listed species. Although Ebright Creek is not a Chinook Stream, strategies discussed in the Migratory and Rearing Areas of the Conservation Rationale identifies the restoration of shallow water areas and stream deltas within migratory areas as a viable conservation action. The proposed enhancement of the mouth and protection of the lower reaches of Ebright Creek are consistent with the hypotheses and strategy for the watershed's Recovery Chapter.

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

The WRIA 8 H-Integration Work Group was formed in 2007. It is encouraging that the Work Group has completed the first two steps of the six-step process to incorporate H-Integration into the Work Plan. This process is a priority within the Puget Sound ESU as well as other areas throughout the state. As watersheds complete the H-Integration process it may become necessary for them to work with other watersheds within their PSP identified Action Areas or possibly across Action Areas.

It is encouraging to see the inclusion of a hatchery capital improvement project within the 2008 Three-Year Work Plan. It is hoped that as the H-Integration process moves forward other hatchery and harvest actions can be included. A combination or suite of properly sequenced actions across all of the "H"s will be necessary to ensure the maximum effectiveness for all site specific or programmatic actions.

## **II. Policy Review Comments**

The Recovery Council Work Group, an interdisciplinary policy team, evaluated each of the fourteen watershed work plans. 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 Lake Washington/Cedar/Sammamish 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 detailed description of how 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 Lake Washington/Cedar/Sammamish Watershed Three-Year Work Plan Update is a coordinated effort through the Lead Entity to further salmon recovery, focusing specifically on H-integration, monitoring and adaptive management, and education and outreach.

### **Significant Advancements**

- Advancing H-integration through a work group tasked with developing integration strategies. Completed Step 2 of the H-integration process.
- Advancing monitoring and adaptive management (monitoring Chinook spawners revealed increase in adult escapement to spawning grounds in Cedar and Bear/Cottage basins over past couple years, as well as an increase in natural origin spawners above Landsburg Dam since 2003 when passage was allowed.
- Outreach and education of property owners and local jurisdictions (e.g., low impact development and shoreline restoration)

### **Issues Needing Advancement**

- Identify capacity needs, and develop and document strategy for addressing them.
- Work on sequencing projects and prioritizing programmatic actions.
- Develop cost estimate, timeline, and framework for an adaptive management plan, which can be done in advance of receiving regional guidance.