

**Puget Sound Partnership
2008 Three Year Work Program Update
Green/Duwamish and Central Puget Sound Watershed**

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.

Green/Duwamish and Central Puget Sound Watershed

Puget Sound Recovery Implementation Technical Team Review

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

Yes, the work program is consistent with the hypotheses and strategy for the watershed's Chinook recovery plan chapter. The updated work program retains its emphasis on the lower mainstem river as the geographic area most limiting productivity of the population and targets most efforts in these areas. The program also includes three levee setback projects in the lower river that are part of the recently approved King County Flood Management Program; these projects are part of the WRIA 9 Recovery Plan and funding of the flood management program affords an opportunity to include these projects in the work program. This work program update does not neglect actions targeted at an alternative hypothesis of limitations posed by middle river habitats, directing some actions at rearing and spawning habitats in that area.

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

While difficult to determine directly, the implication of the work plan, with the addition of the flood management projects, is that the transition zone and lower river are the first order of actions in the watershed. Middle river projects and nearshore acquisition projects also seem to have some momentum as evidenced in the project and action list. The practical outcome is that the actions will not have a clear order of implementation nor will there be a biologically logical sequence during the first three years. However, WRIA 9 has developed a prioritization and sequencing method for their projects that will be applied for the 2009 project year.

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, hatchery and harvest components are still missing from the update. This is critical in testing the primary hypothesis that low survival of natural origin recruits, already depressed by habitat limitations in the transition zone and lower river, is exacerbated by large releases of young Chinook from the Soos Creek Hatchery coincidental with the arrival of these recruits from the middle watershed. It is important that this hypothesis be addressed as soon as possible.

WRIA 9 has implemented the first steps in developing an H-integration program and strategy through the Implementation Technical Committee, however, and should use this work to develop a more integrated work program as soon as it is feasible to do so.

Puget Sound Partnership Questions

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

Yes, the work program recommends many actions to preserve habitats throughout the watershed by acquisitions and programs aimed at promoting better land and water stewardship. None of the programmatic actions have been prioritized, however, and their implementation remains mainly opportunistic at this time. Nevertheless, these programs are important to the eventual success of the recovery plan and should be evaluated, prioritized, and sequenced into the plan.

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

Somewhat. The plan proposes habitat protections and improvements that are intended to largely benefit natural origin recruits (NORs) from this watershed (although the lower river projects will benefit hatchery origin recruits (HORs) as well); however, the population is largely an integrated one and separation and development of a natural origin (sub)population is not discussed here. The inclusion of levee setback projects could increase available habitats somewhat, but the effects would require quantitative evaluation to be certain.

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

Somewhat. Once again, this is not a primary focus of the three year plan. The protection of critical processes in the lower river is problematic given the level of landscape change and cost of property, and is more a concern in the middle and upper river. As in previous program updates, recommendations for flow regime modification—a main driver of riverine processes—are not included in the work plan.

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

Given the number of restoration and protection activities targeted for the nearshore and lower mainstem river habitats, and the importance of these areas to a variety of salmonid species, the likelihood that the work program provides significant benefits for multiple species is high. Protection activities, particularly in the marine nearshore, are targeted at relatively undeveloped areas and are of sufficient magnitude (at least in aggregate) to protect most components of ecosystem processes significant to nearshore habitats. With notable exceptions, however, the proposed actions in the lower river are targeted to recovering particular habitats or features that may not be coherent with the scale of ecosystem processes. The scale of activity for various projects is restricted by the overwhelming modifications that have been imposed on the river by past development; thus, recovery is focused on particular features within the lower river landscape rather than on the formative processes. In the case of the lower Green-Duwamish River, this has been recognized as a limitation about which little can be done in the short term. Nevertheless, some smaller scale processes such as food web support refuge will be supported by the actions.

One notable exception in the three-year list, however, is the levee setback project in the area just above the City of Auburn and adjacent to Auburn Narrows Park (Pautzke-Fenster). Actually a series of levee setback projects, the scale of the proposed work will be sufficient to initiate the recovery of river meander, sediment transport, and large wood recruitment processes at a scale clearly relevant to population viability. In combination with past projects, these projects have the potential to reset critical habitat-forming processes in an area of the river important to productivity and diversity of the several species of Green River salmonids.

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

The plan begins to advance the integrated management of the population through the work of the H-integration Committee that started in early 2007. So far, the committee has been mainly concerned with existing VSP conditions and has not reached the stage of integration that would be reflected in the work program. The update remains primarily a habitat work plan. Nevertheless, important progress is being made.

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 Green/Duwamish and Central Puget Sound 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 Green/Duwamish and Central Puget Sound Watershed Three-Year Work Plan Update is a coordinated effort through the Lead Entity to further salmon recovery, focusing specifically on H-integration, project prioritization and sequencing, progress on projects in priority areas of the watershed, and education and outreach.

Significant Advancements

- Development of a project prioritization and sequencing strategy for application to the 2009 three-year work plan update
- H-integration through the Implementation Technical Committee
- Progress on main stem levee setback projects and marine and nearshore acquisition and restoration projects.

Issues Needing Advancement

- Identify, develop, and document strategy for addressing capacity needs
- Monitoring and adaptive management
- Address challenges with implementing transition zone projects, and how these challenges impact the sequencing strategy