

Puget Sound Partnership and Recovery Implementation Technical Team 2011 Three Year Work Program Review South Sound Watershed

Introduction

The 2011 Three-Year Work Program Update is the sixth year of implementation since the Recovery Plan was finalized in 2005. The Puget Sound Partnership, as the regional organization for salmon recovery, along with the Recovery Implementation Technical Team (RITT), as the NOAA-appointed regional technical team for salmon recovery, perform an assessment of the development and review of these work programs in order to be as effective as possible in the coming years. 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 next three years of implementation.

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 RITT, the Recovery Council, 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, all H integration, 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 2011 work program update reviews

Factors to be considered by the RITT in performing its technical review of the Update included:

- 1) *Consistency question*: Are the suites of actions and top priorities identified in the watershed's three-year work plan/program consistent with the hypotheses and strategies identified in the Recovery Plan (Volume I and II of the Recovery Plan, NOAA supplement)?
- 2) *Pace/Status question*: Is implementation of the salmon recovery plan on-track for achieving the 10-year goal(s)? If not, why and what are the key priorities to move forward?
- 3) *Sequence/Timing question*: Is the sequencing and timing of actions appropriate for the current stage of implementation?
- 4) *Next big challenge question*: Does the three-year work plan/program reflect any new challenges or adaptive management needs that have arisen over the past year?

Watersheds were also provided with the following four questions, answers to which the Recovery Council Work Group and the Partnership ecosystem recovery coordinators assessed in performing their policy review of the three-year work program:

- 1) *Consistency question*: Are the suites of actions and top priorities identified in the watershed's three-year work plan/program consistent with the needs identified in the Recovery Chapter (Volume I and II of the Recovery Plan, NOAA supplement)? Are the

suites of actions and top priorities identified in the watershed's three-year work plan/program consistent with the Action Agenda?

- 2) *Pace/Status question*: Is implementation of salmon recovery on-track for achieving the 10-year goals?
- 3) *What is needed question*: What type of support is needed to help support this watershed in achieving its recovery chapter goals? Are there any changes needed in the suites of actions to achieve the watershed's recovery chapter goals?
- 4) *Next big challenge question*: Does the three-year work program reflect any new challenges or adaptive management needs that have arisen over the past year either within the watershed or across the region?

Review

The following review consists of four components:

1. Regional technical review that identifies and discusses technical topics of regional concern
2. Watershed-specific technical review focusing on the specific above-mentioned technical questions and the work being done in the watershed as reflected by the three year work plan
3. Regional policy review that identifies and discusses policy topics of regional concern
4. Watershed-specific policy review focusing on the specific above-mentioned policy questions and the work being done in the watershed as reflected by the three year work plan. These four components are the complete work plan review.

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 June 2011. The RITT evaluated each individual watershed according to the four questions provided above. In the review, the RITT identified a common set of regional review comments for technical feedback that are applicable to all fourteen watersheds, as well as watershed specific feedback using the four questions. The regional review, along with the watershed specific review comments, are included below.

Regional Technical Review: 2011 Three-Year Work Plans – Common Themes

H integration

In most watersheds the recognized group (lead entity) used by the Partnership as a point of contact for salmon recovery planning, implementation, and status assessment is charged with only a subset of the actions needed for salmon recovery. For example, the Skagit Watershed Council's purview only extends to voluntary habitat restoration and protection through acquisition. However, salmon recovery in every watershed requires significant action in all of the so-called H's: habitat restoration, habitat protection, harvest management, and hatchery management. Because most of the lead entities are limited in their scope, the three-year workplans we reviewed are not comprehensive across all Hs, and we are not able to adequately evaluate the integration of actions across all Hs.

There is a regional need to form more comprehensive watershed forums or groups, with the capability and commitment to implement and coordinate recovery plan actions for all Hs. This issue, and the obvious lack of intentional H integration, has hampered RITT review of 3 year work plans since their inception. We suggest that the Recovery Council work with the co-managers and others to take a strong role in forming functional watershed-level groups for implementing and coordinating actions for all Hs.

Monitoring - Status and Trends of Habitat

Most watersheds have no organized, systematic way of monitoring habitat status and trends. This is especially important for assessing the true progress of salmon recovery in Puget Sound, because most watersheds' recovery plans require that existing habitat be protected. For example, the Skagit plan stipulates that approximately 60% of the habitat burden (which includes habitat protection and habitat restoration) needed for achieving the Chinook recovery goals is based on protecting existing habitat, defined as the amount and quality of habitat in 2005. Thus, tracking whether the quantity and quality of existing habitat is changing is an important need for recovery plan implementation. Continued lack of this information is not necessarily neutral to salmon recovery because losses in habitat may not be reversible or economically feasible, thus limiting options to adaptively manage the issue in the future. Ignoring this necessary status and trends monitoring only serves to hide potential problems with habitat loss (out of sight, out of mind). Without status and trends information it is impossible to evaluate the success of recovery plan implementation to date.

A topic related to status and trends monitoring of habitat is the need for a "balance sheet" system to account for habitat related to mitigation projects. All Puget Sound Chinook recovery plans require a net gain in salmon habitat. Any use of mitigation strategies for damaged habitat needs to ensure that there is not any loss at the scale that Puget Sound Chinook populations operate. Monitoring the big picture for all mitigation programs in the context of individual Puget Sound Chinook salmon populations is critical because mitigation does not always occur on site within the same habitat type, nor does it consistently restore natural process (often engineered habitat). Some possible consequences of mitigating habitat damage using these procedures are:

- an influence to species or populations other than those damaged by the habitat action (different site, different habitat type)
- a lack of functioning and sustainable habitat (limitations in restoring natural processes that form and sustain habitat).

Without keeping a detailed "balance sheet" of changes in habitat quantity, quality, and location, it is possible that the mitigation process ultimately produces no net gain in habitat.

Protection of ecosystem functions and habitat

Protection of existing well-functioning habitat is an essential component of salmon recovery in Puget Sound. Most watershed groups continue to express concerns about ongoing degradation and loss of habitat. Their concerns are supported by habitat change analyses that document continued loss of key habitats in a number of Puget Sound watersheds, with little change in the rate of loss since the listing of Puget Sound Chinook in 1999. Some watersheds have noted that habitat loss may be offsetting any gains they are making through restoration projects.

While habitat restoration can be accomplished through the watershed groups, given adequate funding, protection of existing habitat is mainly reliant on local regulations and their enforcement. Many local, state, and federal policy drivers impact salmon habitat, for example, the Shoreline Management Act (SMA), Growth Management Act (GMA), state Hydraulic Permit Approvals (HPA), NOAA's reviews of federal actions under Section 7 of the ESA, and the Army Corps of Engineers' revised levee vegetation management policy.

During 2010, the RITT was briefed on the SMA, GMA, and HPA in order to better understand how practical implementation of habitat protection could be better incorporated into salmon recovery. While these acts all include some consideration of environmental protection needs, they also require regulators to balance a number of other societal benefits, such as economic development and access to the shoreline and navigable waters. We found that none of these acts is sufficiently integrated with the Puget Sound Salmon Recovery Plan for us to be able to provide specific guidance regarding how habitat protection should be implemented to support salmon recovery. Therefore, while some of our watershed-specific comments suggest ways that individual watershed groups could better integrate habitat protection into their recovery plan implementation, we also recognize that much of the solution to this problem lies in revising the underlying planning processes. We suggest that the Recovery Council, the watershed groups, and the RITT should work together to develop ways to provide the technical input for integrating, to a greater extent, actions that promote salmon recovery into these local and regional decisions and regulations affecting salmon habitat.

Funding for monitoring

Salmonids and the ecosystems on which they depend are naturally dynamic. For this reason, and because our understanding of both salmonids and their ecosystems is incomplete, adaptive management is necessary. Adaptive management, however, cannot proceed without monitoring, and monitoring requires stable funding.

A recent meta-analysis of >37,000 river restoration projects nationwide found that few included any form of monitoring, and most that did were not designed to monitor project effectiveness or to distribute monitoring results (Bernhardt et al. 2005). The authors concluded that opportunities to improve future practices by learning from successes and failures were being lost, particularly for small-sized projects whose cumulative cost and extent exceeded those of larger, better monitored projects.

The Puget Sound region, like the rest of the country, needs to elevate its prioritization of monitoring – not just effectiveness monitoring of restoration projects, but also other types of monitoring (e.g., status and trends monitoring) of the numerous ecological endpoints relevant to listed salmonids. A critical impediment to additional monitoring is adequate funding. Some funding sources explicitly exclude monitoring proposals; others simply give higher priority to habitat manipulation than to monitoring. We encourage all funding sources to recognize the need to allocate a portion of resources to monitoring.

Adaptive Management and Monitoring

One of the biggest challenges for implementing the Puget Sound Salmon Recovery Plan is the development of substantive but also realistic, useful, and applicable adaptive management plans

at the watershed level. The NOAA Supplement to the Puget Sound Recovery Plan identified these as the key tool for addressing the scientific uncertainties inherent in the Plan. A number of watersheds have made good progress on development of adaptive management and monitoring plans. Meanwhile, the RITT has embarked on development of a general approach that can be tailored to each watershed's plan while providing a means of evaluating progress across watersheds. While much progress was made in 2010 on both fronts, most watersheds' adaptive management plans remain incomplete.

The RITT has developed a draft framework for adaptive management and monitoring, both to support individual watershed's needs and to integrate the watersheds' work through a common terminology and template at the regional scale. The draft framework is in the process of being finalized with the intent of distribution later this year. The framework has been applied, with RITT support, in three "case study" watersheds – San Juan Islands, Skagit, and Hood Canal – using the Open Standards for Conservation planning approach, in order to:

- 1) identify needs,
- 2) provide a consistent template for planning and prioritizing monitoring,
- 3) develop a process for refining short-term objectives and 10-year goals, and
- 4) increase the technical capacity of the watersheds to complete these adaptive management and monitoring plans.

Expansion of RITT support to work with other watersheds has also begun and will continue in 2011 and 2012. Although RITT support is available to each watershed, the process of building the adaptive management and monitoring plans will still demand time, commitment, and resources from the watershed leads, planners and implementers of actions associated with the Recovery Plan.

Climate Change Adaptation

Climate change is expected to affect the environmental and ecological processes that, in turn, control the quality and quantity of habitats for Pacific salmon. This cascade of changes is the subject of global and regional research, modeling, and planning efforts. For the Recovery Council, RITT, Puget Sound Partnership, watershed groups, and other salmon recovery entities, climate change is likely to become an increasingly important issue when considering restoration actions. Specific watershed-scale planning regarding the effects of climate change on salmon and their habitats will require additional study. However, current empirical data clearly demonstrate increased air temperatures in the Pacific Northwest during the 20th century, and regional climate models predict that this trend will continue. Increasing air temperatures will result in changes to watershed hydrology such as the magnitude and timing of peak and base flows. In addition to changes in watershed hydrology, it is anticipated that climate change will result in changes to ocean acidity, salinity, biodiversity, temperature, currents and coastal circulation, as well as sea level. Salmon production is intimately linked with these variables.

As ecosystem processes and functions respond to climate change, salmon recovery strategies will need to adapt to these changing environmental conditions. The Puget Sound Salmon Recovery Plan and accompanying NOAA Supplement both indicate that climate change impacts on salmon need to be considered in evaluating recovery. The NOAA Supplement identifies climate change

as one of several “specific technical and policy issues for regional adaptive management and monitoring.” The RITT will work with the Puget Sound Partnership, and other stakeholders to develop of adaptive management plans that consider climate change.

Those interested in “a place-based exchange of information about emerging climate, climate impacts, and climate adaptation science in the Pacific Northwest” should consider attending the second annual Pacific Northwest Climate Science Conference, scheduled September 13-14, 2011 in Seattle, Washington. Details on registration and abstract submission can be found at <http://ces.washington.edu/cig/outreach/pnwscienceconf2011/>.

The following online references synthesize various agencies’ efforts at understanding the potential impacts of climate change on natural resources in Washington State:

University of Washington Climate Impacts Group. 2009. The Washington climate change impacts assessment: Evaluating Washington's future in a changing climate.

<http://ces.washington.edu/cig/res/ia/waccia.shtml>

University of Washington Climate Impacts Group. 2010. Hydrologic climate change scenarios for the Pacific Northwest Columbia River basin and coastal drainages.

<http://www.hydro.washington.edu/2860/>

Lawler, J.J. and M. Mathias. 2007. Climate change and the future of biodiversity in Washington. Report prepared for the Washington Biodiversity Council.

<http://www.biodiversity.wa.gov/documents/WA-Climate-BiodiversityReport.pdf>

National Wildlife Federation. 2009. Setting the stage: Ideas for safeguarding Washington’s fish and wildlife in an era of climate change.

http://wdfw.wa.gov/wlm/cwcs/nwf_climatechange09.pdf

For a comprehensive listing of resources regarding climate change impacts, preparation, and adaptation, see the Washington Department of Ecology and Fish and Wildlife websites:

http://www.ecy.wa.gov/climatechange/ipa_resources.htm

http://wdfw.wa.gov/conservation/climate_change/

Watershed Specific Technical Review: South Sound Watershed

The 2011 South Sound three-year project list consists of four separate worksheets, identifying projects from a) WRIAs 10 and 12, b) WRIA 11, c) WRIAs 13 and 14), and d) WRIA 15. The purpose of combining these projects in a single list is to strive to integrate, prioritize, and sequence the projects among all WRIAs the South Sound region. As in 2010, integration, prioritization and sequencing of projects across watersheds are lacking. This is at least partly because South Sound Salmon Recovery Plan has no overarching strategy, and the South Sound Salmon Recovery Group (SSSRG) has no formal structure. Furthermore, as in many other watersheds, funding is insufficient to meet recovery needs.

1) Are the suites of actions and top priorities identified in the watershed’s three-year work plan/program consistent with the hypotheses and strategies identified in the Recovery Plan (Volume I and II of the Recovery Plan, NOAA supplement)?

The South Sound Recovery Plan chapter addresses nearshore habitat issues using an ecosystem-based multi-species approach to recover the listed Chinook salmon and bull trout that utilize this area, and to benefit non-listed salmonid species. The chapter identifies eight human-induced stressors that contribute to the poor nearshore conditions for salmonids in the area, including shoreline armoring, overwater structures and ramps, stormwater and wastewater, riparian loss, wetland and estuarine modification, boat traffic, invasive species, and shellfish aquaculture. However, the chapter does not provide an “overarching, integrated strategy” for addressing these stressors. It is therefore difficult to assess whether the actions and priorities identified in the work plan are consistent.

The majority of projects included in the three-year work plan addresses habitat restoration and acquisition, and (in WRIA 11) stock monitoring. The “newly added” projects focus on the same set of issues, and also hatchery operations and stock management support in WRIA 11. Projects addressing boat traffic and aquaculture should be added to incorporate stressors identified in the recovery plan.

2) Is implementation of the salmon recovery plan on-track for achieving the 10-year goal(s)? If not, why and what are the key priorities to move forward?

While the broad goal of the SSSRG and Technical Team is stated at the outset of the 2011 Update, neither short-term nor 10-year goals are specifically identified in the South Sound Recovery Plan. The update lists new, ongoing, and completed projects, but it is unclear how these projects link to a recovery plan strategy. Most likely, implementation is not on track to achieve the goals needed to achieve recovery in South Sound. The identification of goals and the development of a recovery strategy are critical for making progress.

3) Is the sequencing and timing of actions appropriate for the current stage of implementation?

The RITT commends the SSSRG’s timely efforts to advocate for salmon recovery during the process of updating the Shoreline Master Programs. Overall, the sequencing and timing of actions, particularly among WRIAs, remains an issue for the South Sound, partly due to the unique composition of South Sound, with multiple separate Lead Entities. A coordination process between the Lead Entities needs to be developed, accepted and utilized. Presumably, this will be undertaken by the newly created South Sound Local Integrating Organization (LIO) when they attempt to formalize the structure of the SSSRG. It is worth noting that coordination among stakeholders is a Sound-wide issue highlighted in this year’s “Common Themes.”

4) Does the three-year work plan/program reflect any new challenges or adaptive management needs that have arisen over the past year?

Regional coordination

Regional coordination among the five watershed groups remains difficult, given the many jurisdictions involved and the inadequate human resources available. The SSSRG anticipates that the South Sound LIO will help address this challenge. While this might be the case, it also might be the case that the LIO will expect guidance from the SSSRG on issues related to salmon recovery – including how to improve regional coordination of salmon recovery actions – in which case the SSSRG should be prepared to “tee up” relevant issues and questions for the LIO.

Monitoring and adaptive management

A monitoring and adaptive management (M&AM) plan needs to be developed for the South Sound region. Given the multitude of players in this region, the task will not be easy, but it will be necessary in order to discern whether actions being taken are having the intended effect on salmonid habitat and viability. Three ongoing efforts related to M&AM could help the SSSRG face this challenge:

1. The draft M&AM plan for the Nisqually watershed;
2. The draft M&AM “template” for the Puget Sound region, developed by the RITT; and
3. A compilation of current efforts to monitor abundance, productivity, spatial distribution, diversity, and hatchery effectiveness for ESA-listed salmonid species in Puget Sound, conducted by Bruce Crawford of NOAA.

H-integration

Integration of actions related to harvest, hatcheries and marine habitat did not progress in 2010. According to the three-year work plan update, the tools needed for H-Integration in the marine waters of South Sound are either unavailable or not well-developed. Which tools are these? Are they available in one South Sound WRIA but not in others? Perhaps the development of these tools could be included when the South Sound recovery strategies are formalized.

Steelhead recovery

Steelhead recovery poses another major challenge. The spatial distributions of Chinook and steelhead in the South Sound differ, so actions targeting one species will not necessarily benefit both. Given this fact and limited funding, the need to coordinate and prioritize recovery efforts will be that much greater.

II. Policy Review Comments

The Recovery Council Work Group is an interdisciplinary policy team of tribal, federal, state, and local agency policy staff. The team developed both general comments on common themes across the watersheds within the region, as well as significant advancements and issues needing advancement that are watershed specific. The general and watershed specific comments follow below.

Regional Policy Review: 2011 Three-Year Work Plan – Common Themes

It has been twelve years since the listing of Puget Sound Chinook. Although there has been considerable advances towards recovery, significant difficult challenges remain. The following is our sense of some of these key challenges. We acknowledge the complexities and enormous efforts undertaken to advance recovery, and the Region remains steadfast in its support of the watershed approach to salmon recovery.

The Region wants to again highlight the significant amount of thought, time, and energy that each of the watershed groups put into updating their specific three-year work plans – they continue to be more sophisticated and are critical in the work of implementing recovery. The work plan is becoming more refined, and ultimately is helping advance regional recovery through a strategic process that results in the most important projects being done.

We appreciate the efforts of the watersheds, and look forward to further refining this process and its utility in the future.

Continue to Support Multi-Level Relationships and Discussions

Decisions that affect salmon recovery are made at the federal, state, and regional scales and are often in need of reconciliation at the watershed level. The Region remains committed to supporting difficult conversations that are relevant to salmon recovery to find common ground and common solutions. This includes decisions around land use, how to sequence and identify regionally significant actions, and the functional relationships within the Action Agenda.

Focus on Salmon Recovery

The work to recover the Puget Sound ESU is complex, multi-faceted, and is being advanced in many different forums. This includes the effort to integrate decisions across the H's, adaptively manage the salmon recovery plan, refine the Action Agenda, participate in the development of LIOs, and support the integration of salmon recovery into shoreline master program updates. The salmon recovery community must engage in all these arenas, but it is also critically important to focus the time and resources in a way that leads to recovery of salmon. The Region recognizes that implementation of salmon recovery actions remains a high priority and is committed to continuing to strengthen and implement the salmon recovery plan to realize this goal.

Protecting Ecosystem Functions

The protection of existing habitat is essential to supporting healthy ecosystem functions. Improving our ability to protect habitat continues to be a high priority for the Region. There are several timely initiatives associated with our ability to protect habitat underway right now, including the Shoreline Master Program Updates and response to the Biological Opinion on FEMA's NFIP. Other tools are necessary for this work include voluntary efforts, technical assistance, incentives, education and outreach work, and acquisition of property. The Region recognizes the importance of these tools and initiatives and supports continued work to refine and improve our use.

Adaptive Management and Monitoring

The development of a coordinated watershed/regional monitoring and adaptive management program remains a high priority for the region. This is key to strengthen recovery chapter

implementation, adaptation, and overall assessment of recovery efforts. Many of the watersheds indicated the challenges of advancing this work, due in part to the limited regional and watershed capacity

The Region continues to be committed to advancing adaptive management in a way that describes the relationship between habitat, harvest, hatchery, and hydropower management decisions. The following describes several actions occurring at the regional scale to advance this effort:

- Compilation of VSP monitoring data throughout the Sound by NOAA and co-managers;
- Establishment of the Salmonid Work Group with PSP, NOAA, and USFWS to develop an assessment of ongoing VSP monitoring and how it relates to listed Chinook, steelhead, and summer chum.
- Framework to link together the hypotheses and monitoring information associated with each of the watershed chapters and the regional chapter information. This has been developed by the RITT and is now being tailored to the watersheds, starting with three (San Juan, Skagit, and Hood Canal)
- RITT/PSP commitment to work with all the watersheds to tailor the monitoring and adaptive management framework/template and support monitoring and adaptive management plan development.

To be successful in this work, a significant amount of resources are, and will continue to be, needed. In addition, the right people must be at the table, including the technical and policy experts in the hatchery, harvest, habitat protection, habitat restoration, and hydropower sectors.

Emerging Issues Affecting Salmon Recovery

There continues to be issues that emerge that can ultimately affect the trajectory of recovery. Local, state, tribal, and federal representatives in the salmon community should continue to engage and connect salmon recovery needs to such discussions and coordinate messages that offer the broadest level of support possible. Such initiatives include:

- Shoreline Master Program updates: Occurring across the Puget Sound and is critically important for maintaining and improving the ecosystem functions associated with the riparian habitat and freshwater and nearshore systems that support salmon.
- FEMA's National Flood Insurance Program: Local Jurisdictions are responding to a NOAA/NMFS Biological Opinion on the program that will impact how and where development occurs in the floodplains across the Sound.
- Corps of Engineers Levee Vegetation Management Policy: The Corps is working on an approach to vegetation management on levees along rivers and streams that contain salmon.
- Large Woody Debris Installation: Jurisdictions are balancing the need for sustainable, functional salmon habitat with boater safety and flood management.
- Hatchery Genetic Management Plans: their development and their connection to the Puget Sound Harvest Management Plan and watershed plans aimed at system recovery

Funding

The Salmon Recovery Plan identified a need for a \$120 million investment per year for the first ten years. This represents the need for both a sustained investment that is consistent and reliable for capital and non-capital actions, as well a protection of the existing resources. We are falling

short of this need to make salmon recovery successful and it is imperative that the Region and its partners continue to think broadly about diversified funding sources. Leveraging the efforts of others, and forging new relationships with non-traditional allies will only help increase efficiencies to advance recovery. The Region is committed to exploring creative ways to leverage and secure new funding for salmon and ecosystem recovery.

Watershed Specific Policy Review: South Sound Watershed

Significant Advancements

- Advanced project prioritization and implementation of the South Sound recovery plan chapter through refinement and application of a GIS-based nearshore project selection tool to identify and select priority projects in WRIAs 13 and 14. The WRIAs have rated the top scoring 20 percent of nearshore units as priorities for restoration, in addition to the top 20 percent for conservation, with this tool.
- Restoration in the Nisqually Estuary was completed in 2009-10. When matured, this project will increase the overall amount of salt marsh habitat in the South Sound by 50 percent.
- Lead Entities have been working with local jurisdictions to advance shoreline protection through engagement with Shoreline Master Program update processes in South Puget Sound counties and other jurisdictions.
- Created and convened a local integrating organization (Alliance for a Healthy South Sound) of elected representatives from Kitsap, Mason, Thurston, and Pierce counties and the Squaxin and Nisqually tribes – in addition to a broadly inclusive, staff-level Work Group – to discuss and collectively advance South Sound-wide strategies and priorities for ecosystem recovery in South Puget Sound.

Issues Needing Advancement

- Developing and formalizing a structure and process for South Sound policy and technical group operation will support the advancement of salmon recovery actions. More formal coordination will help to improve efficiency and promote a strategic approach to recovery efforts in the nearshore.
- As demonstrated by the effort in 2009 and 2010 to identify ‘regionally significant projects, continuing efforts to work collaboratively across all five lead entities to develop a strategy for prioritizing and sequencing work plan projects South Sound-wide will support and advance recovery plan objectives in a more comprehensive way. At the same time, the mechanism by which funds would be shared in order to advance a set of regional, ecosystem-based priorities is a complex issue that would need to be addressed with great care.
- Working in concert with the RITT, developing an adaptive management and monitoring plan for the South Sound chapter will improve our ability to assess the outcomes of nearshore protection and restoration projects for Chinook salmon and other species using nearshore habitat in Puget Sound.
- Steelhead recovery does not necessarily mesh well with Chinook recovery planning in the South Sound Action Area, as steelhead are generally more widely distributed within the South Sound watersheds than are Chinook. Ultimately, coordinating both recovery

efforts will necessitate increased effort and funding and at present, resources are likely not sufficient to support this work. Funds allocated by the SRFB for the 2011-13 biennium, though, are a potential avenue for advancing steelhead recovery planning in South Puget Sound and other Action Areas.