

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

- 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)?***

Yes. The sequencing of actions and allocation of actions among sectors is essentially the same as in previous years and still matches the strategies derived from the hypotheses underlying the recovery plan for the Snohomish. Within the area of habitat restoration, effort, as measured by

the surrogate of funding levels, is allocated according to the breakout supported by the analysis that underlay the original recovery plan. The current three-year plan reflects some changes in thinking based on what has been learned since 2005, but the basics of the underlying plan have not changed, and the current three-year plan matches that.

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?

The three-year work plan includes 5 pages of tables assessing progress towards targets in habitat protection, habitat restoration, hatchery operations, harvest management, and H-integration. These tables provide an easy way to visually assess progress in all aspects of the plan. They show that:

- a) The status of habitat protection remains difficult to ascertain due to lack of basin-wide comprehensive monitoring of habitat loss, although several major programs to accomplish some of this do exist.
- b) Habitat restoration is on track in only 4 of 14 categories, and the current three-year work plan is either insufficient to get back on track, or it is impossible to assess this. Inadequate funding has created a \$53,000,000 backlog of projects.
- c) Hatchery operations are on track to meet plan goals in 3 of 6 areas listed. Specific actions to get back on track in all areas are listed, but no assessment is offered for whether the current plan is adequate to do this.
- d) The work plan is on track to meet goals in 2 of 5 harvest management areas listed. The others are important work items that are not currently funded, so the current plan is insufficient to meet those needs.
- e) The H-integration table, which was added in 2010, is currently incomplete. Of the 8 H-integration categories listed, 2 are on track to meet plan goals and the rest are unknown. As such, this table is a good start which could use more thought and elaboration.

Although this section of the plan does not paint a perfect picture of a plan being implemented exactly as expected, it is an excellent tool for assessing current progress. Given the expected lag between habitat restoration actions and Chinook population response to those actions, delays due to insufficient funding will likely impede salmon recovery.

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

Sequencing and timing is appropriate and per the plan, understanding that many actions are falling behind pace, as is well documented in this three-year work plan. A key step in adaptive management will be to evaluate and coordinate the relationship among habitat restoration, habitat protection, hatchery operations, and harvest management. The watershed group has made great strides in attempting to include all relevant actions in all 4 H's as a first step in making this assessment.

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

This question includes the following two subsections, also posed as questions:

a) What is the status or trends of habitat and salmon populations in the watershed?

The positive response in Chinook escapement from the late 1990s through the mid-2000s, apparently in response to harvest rate reductions, suggests that additional spawners are being provided to the system to take advantage of improvements in habitat quality or quantity that might result from recovery efforts. The recent decline in escapements may be due to poor ocean conditions, or it may indicate that habitat improvements are not keeping pace with habitat degradation in the basin. It would be worthwhile to investigate this question.

b) Are there new challenges associated with implementing salmon recovery actions that need additional support? If so, what are they?

This year's three-year work plan lists several challenges that will be important to address in order for this plan to move forward. First among them is the need to decide how to measure habitat gains due to mitigation, since the use of restoration projects as mitigation for other actions that degrade or remove habitat remains to be considered by the Forum. This issue emphasizes the necessity for a comprehensive "balance sheet" type of assessment for both habitat losses and gains (see this year's Common Themes).

Another need is to continue addressing the issue of public support for salmon restoration, particularly as it applies to restoration projects on agricultural lands, in order to reach the plan's recovery goals. The same applies to the issue of ongoing conflicts between boater safety and large wood placement (or large wood "encouragement" via restoration projects). It will be very important for the RITT and the watershed group to make it clear how salmon recovery will be affected if restoration of habitat on agricultural lands and placement of large wood is impeded.

The narrative also points out that more work on H-integration is needed for this plan to succeed in moving the Snohomish Chinook populations toward recovery. The Snohomish watershed has made good progress on H-integration, as evidenced by the active participation of harvest and hatchery managers in watershed deliberation, the completion of an all-H technical analysis in 2008, and inclusion of hatchery and harvest management projects in this three-year work plan.

The work plan highlights the need for additional support, both technically (for understanding ecosystem processes and analyzing project data) and administratively (for project management). We support this. It also emphasizes the need to preserve institutional knowledge of the salmon resource and the factors that affect it. If we don't make an effort to do this, knowledge will be lost as people retire or move on.

5) *General comments and observations*

- a) The narrative states, and the RITT agrees, that salmon recovery in the Snohomish watershed is on the right trajectory, but not moving as fast as envisioned in the 2005 plan. Identified gaps in H-integration and habitat protection are being addressed as well as possible with the resources available, and we see that good progress is being made. We are concerned that it will not be possible to achieve the recovery goals for the basin without increased funding, and unless the tension between agriculture and restoration continues to be addressed.
- b) Although this 3-year work plan is similar to last year's, the RITT recognizes that several other plans will soon be implemented, all of which are likely to cause changes. These include the Snohomish Basin Monitoring and Adaptive Management Plan, the Comprehensive Management Plan for Puget Sound Chinook, the Hatchery Action Implementation Plan update, and Phase II of the Sustainable Lands Strategy.

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 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: Snohomish Watershed

Significant Advancements

- As mentioned in the 2009 review, the Snohomish work plan continues to advance a thoughtful and technically rigorous recovery plan and reflects the priorities of the plan. This comprehensive and thorough 3-year work plan update clearly demonstrates the progress made as well as the challenges to salmon recovery in the watershed. This work plan can certainly be used as a model to other Puget Sound watersheds.
- The 2011 three-year work plan update continues to advance the thinking around H-integration within the watershed. This work takes a concerted effort by the watershed to keep numerous parties at the table and should be noted as a significant advancement,

especially during a time when capacity within the watershed is stretched thin. The region looks forward to this continued work as it advances and begins to address questions related to “sequencing projects” as is referenced in the work plan.

- The 2011 three-year work plan update clearly describes refinements to the project list such as those projects that have been strategically removed and/or added based on comments received in 2009 and 2010 from the Snohomish Forum and the region. This work describes a clear commitment from the basin to continue to advance project prioritization and sequencing and further refines the watersheds strategy over the three-year period.
- The implementation of numerous habitat protection projects in the Snohomish Basin, including the EPA grant, the Tulalip Tribe’s watershed characterization, the University of Washington’s Scenarios work, offers opportunity to advance a more robust habitat protection strategy at the watershed and reach scales. Results from these grant will be important in ensuring successful implementation of the strategies of the salmon recovery plan. This work will benefit from coordination to ensure that the strategies and results build on each other.
- Snohomish Sustainable Lands Strategy: Great strides have been made to advance the work on the Snohomish Sustainable Lands Strategy. This has many promising features that can provide efficiencies and can expedite the projects while also advancing agricultural interests in the basin. The next steps in phase 2 will be important to further refining the strategy and actively engaging more partners in the watersheds. This work is an example that could be used in other areas in Puget Sound. This is a very promising and pioneering initiative to support both agriculture and habitat restoration for salmon recovery and should be commended.
- The Snohomish Basin has made great strides in developing a complete adaptive management plan. Over the next years the watershed will be challenged to identify how best to implement and advance monitoring elements. The region is greatly encouraged by the work that has proceeded this and supports the interests to advance the next steps related to identifying real priorities for monitoring. Hoping to see continuing advances on this work and is confident that it will link well with the RITTs watershed based work.

Issues to Advance

- Retaining capacity for the salmon recovery program within the Lead Entity continues to be a significant challenge. Additional information on the need and opportunities would help refine the request. Continuing to address capacity needs in order to advance on implementation of the salmon recovery plan is keenly important. This is especially true as recovery becomes more complex and as salmon recovery is needed to be seen in a broader societal perspective.
- Local integration within the basin must be built in a way that supports the implementation of the salmon recovery plan and other activities.
- Large woody debris – emergency ordinance for pdfs on all moving waters have implications for salmon recovery.