

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

Implementation of the San Juan County recovery plan is proceeding consistently with the assessment, protection and restoration priorities outlined. The San Juan plan’s recovery strategy is to implement projects that will protect and restore the important salmon habitats. This has involved first and foremost an assessment approach to determine how, when and where salmon are utilizing San Juan County’s shorelines, fresh and marine waters so that such information can be used to prioritize protection and restoration actions. In a recent adaptive management (Open Standards) exercise the WRIA 2 staff conducted with members of the RITT, it became clear that most of the projects outlined in the initial phase of the recovery plan have already implemented. The “Big Picture” nearshore marine fish assessment and other assessments were completed in

2010; and the “Pulling It All Together” (PIAT) project has been initiated in 2011 and is scheduled for completion later this year. The PIAT project brings the various assessments and data sets together and attempts to prioritize protection and restoration actions within the County.

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)?

Generally, yes, the WRIA 2 (San Juan County) work program is consistent with the hypotheses and 3 primary strategies for their area (i.e., assessment to inform protection and restoration). The WRIA 2 protection and restoration projects initiated to date have been supported by assessment information, and the WRIA has not gone beyond such evidence to ‘just do it’ in other places. This approach is consistent with that outlined in their plan. Specific actions are not prioritized beyond categorizing them into Tier 1 (protection) and II (restoration), and the near-term need for that work is acknowledged in their work program. The budget allocation in the project spreadsheet accurately reflects the priorities of the salmon recovery plan.

The PIAT project is currently being used to update the local work plan. This includes to prioritize areas used by fish (multi-species), and also to analyze nearshore habitat conditions for identification of protection and restoration areas. Further, these results will be refined to identify and prioritize areas by ecological community structure. This will include freshwater and marine nearshore and offshore habitats.

In addition, adaptive management and monitoring draft work was accomplished in 2010; further work in 2011 is continuing but currently on hold until fall 2011 when results of the PIAT project will be available. Combined with a modeling framework to prioritize and sequence protection and restoration actions, this work will provide the ability to update the work plan for 2012, and ultimately the Salmon Recovery Plan.

The Work Plan prioritizes projects based on Tiers. For Capital projects, there are 3 new acquisitions listed which are significant shoreline protection actions. And an acquisition on Cascade Creek is ongoing and an important perennial stream with adjacent tidelands.

For Non-Capital projects, completion of the PIAT project is most important in order to utilize the assessment data that are recently available. Education and outreach activities are substantial in the county, focusing on degraded habitat, water quality, shoreline protection related to growth and development, and an active beach watchers program. Many factions of the community are involved from various perspectives such as workshops and training for residents, landowners, real estate agents, etc., in-school programs, landowner assistance programs, and volunteer data collections for water quality and fish. The Lead Entity Coordinator has actively participated in the CAO and SMP Update processes. The 3 year work plan will contribute significantly to the SMP restoration planning. Results of the CAO and SMP updates will ultimately provide greater protection for aquatic habitats and shorelines in the County. The RITT recognizes the value and importance of the Lead Entity coordinator’s efforts in this area; please refer to the guidance under regional issues regarding technical feedback during these processes.

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

The surprising and positive finding from the adaptive management assessment, that most of the actions identified in the salmon recovery plan are being implemented, is great news! The assessments will provide a basis for protection and restoration actions. Because there were no explicit statements of ‘what will it take’ in terms of the magnitude of actions needed to support salmon recovery, there is no doubt a need to revise the plan and adjust the actions, and even to consider setting a 10-year goal for salmon recovery efforts in the San Juans. Funding cutbacks at all levels of local, state and Federal governments make it unlikely that sufficient capacity (people, money, and political relationships) exists for implementation and possible updating of the plan; especially considering the CAO and SMP Updates that are underway or happening soon in the WRIA. Developing and implementing an adaptive management strategy is a key priority in moving towards longer-term goals. This work is underway with the RITT, thus increasing the chances that WRIA 2 is moving with the capacity that it has and can acquire in the most efficient manner.

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

At a coarse level (i.e., grouping projects into 2 Tiers), the sequencing of the work program appears to be appropriate. The WRIA 2 efforts thus far have focused on assessments that will generate information to guide further protection and restoration activities. Some protection and restoration efforts have been implemented in these early years of plan implementation, which is in keeping with moving forward with some actions that have relatively high certainty of achieving positive outcomes, while also delaying larger investments until more information about salmon and food web use of nearshore habitats is available. The WRIA now articulates good questions about adaptive management; such as what frequency should monitoring be conducted, now that the baseline “Big Picture” study is coming to an end. There is much going on in education and outreach activities at many different levels in the San Juan Islands and connection to specific salmon recovery goals is still somewhat unaddressed. These connections should be clearly specified and documented so that citizens, landowners, business owners, visitors, etc. clearly relate the changes they make to recovery goals and objectives.

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

The WRIA is beginning to address a major need in this watershed, which is to complete and implement an adaptive management plan and strategy that directly identifies key uncertainties and how to use existing and new knowledge to make effective decisions to recover salmon. With the support of the RITT, the WRIA is going through the adaptive management discussion, which is a good forum within which these issues can be addressed. The Lead Entity should show the link between the assessment framework and the recovery plan chapter update. The framework analysis will provide information for the update of actions and goals in the recovery plan chapter. How will the Lead Entity sequence the recovery plan chapter update and the adaptive management plan now being developed? If the new adaptive management plan is in place when the recovery plan chapter is updated, the Lead Entity would have to go back and revise the adaptive management plan with the new actions and goals. You may want to update the chapter first. The RITT would be happy to talk about this sequencing with you.

Information regarding H-integration is not addressed in the three year work plan. Please see guidance under this topic in the regional issues section of this review. Salmon recovery is dependent on coordination of all aspects of salmon in the watershed. Information regarding harvest and hatchery operations needs to be incorporated in this work plan, as well as, in the thinking of the people and agencies involved in conducting the work. If the expertise is not currently present in the planning and coordination efforts, then the WRIA should consider identifying who needs to be present.

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:

- a. Compilation of VSP monitoring data throughout the Sound by NOAA and co-managers;
- b. 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.
- c. 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)
- d. 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: WDFW is Ps 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 as 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: San Juan Watershed

Significant Advancements

- The WRIA completed technical assessments to fill critical data gaps, including important habitats and salmon utilization. This information is being compiled as part of the Pulling it All Together project, which will support a prioritization strategy for protection and restoration actions in WRIA 2 and the update of the San Juan recovery plan chapter in the near future.
- Significant time and resources were invested to advance the adaptive management and monitoring process. The Lead Entity worked with the RITT and PSP staff to evaluate monitoring needs and develop a viability assessment. In addition, the Lead Entity continued to work with the Marine Resource Committee to coordinate with the Marine Stewardship Area monitoring plan. Work on adaptive management and monitoring will recommence after completion of the Pulling it All Together project.
- The Lead Entity is continuing to participate in local regulatory protection programs, such as

the Critical Area Ordinance update process and Shoreline Master Plan update process. The contribution of salmon recovery assessment data continues to inform these efforts. This maximization of assessment data is one example of the effective and strategic use of limited resources in the San Juans. In addition, the Lead Entity is working to integrate and advance salmon recovery in the Local Integrating Organization (LIO) through participation in the Implementation Committee of the San Juan Action Agenda Oversight Group.

Issues Needing Advancement

- A significant investment of time, energy, and funding is yielding a robust synthesis of San Juan nearshore and freshwater science through the Pulling it all Together project. Using this synthesis, the San Juan Lead Entity looks to advance the following work elements:
 - o A geographic prioritization of projects in Habitat Work Schedule;
 - o An Adaptive Management and Monitoring Program, including a revised conceptual model;
 - o A revised San Juan chapter of the Salmon Recovery Plan; and
 - o Input into future plans and regulatory programs, including the Geographic Response Plan and WDFW work window.
- Current funding is not sufficient to fill a full-time Lead Entity Coordinator position. As a consequence of this reduction in capacity, an opportunity to operationalize the results of the Pulling it all Together project in project review, plans, and protection programs may be lost. Continuing to work to secure base funding in concert with regional efforts will support the important role of the Lead Entity Coordinator
- The significance of the nearshore information obtained in the Pulling it all Together Project is regional in scope, and work to incorporate the results of this project at the regional level should be supported.
- The Lead Entity can no longer support an outreach and education position. In addition, the Marine Resource Committee cut its outreach and education position, effectively ending that collaborative partnership in increasing awareness and coordinating messaging. This limits the ability of the Lead Entity to fulfill the goal of outreach and education as detailed in the Salmon Recovery Plan. The Lead Entity should consider further collaboration with the Stewardship Network to advance common outreach objectives.
- In addition to reductions in Lead Entity funding, decreasing revenue for the County may have implications for the protection of functioning habitat through robust habitat protection measures. The level of staffing assigned to habitat protection measures in the County, and thus the overall quality and technical rigor of CAO and SMP update, may be in jeopardy. The WRIA should consider pursuing additional sources of funding to implement habitat protection.