

Narrative for WRIA 2 / San Juan County Salmon Recovery 3 Year Work Program for 2009

Adaptive Management is the overarching theme for 2009 and most likely also for 2010 for San Juan County's salmon recovery work.

A brief background is provided here to provide the context for the questions being asked for this 2009 work plan update.

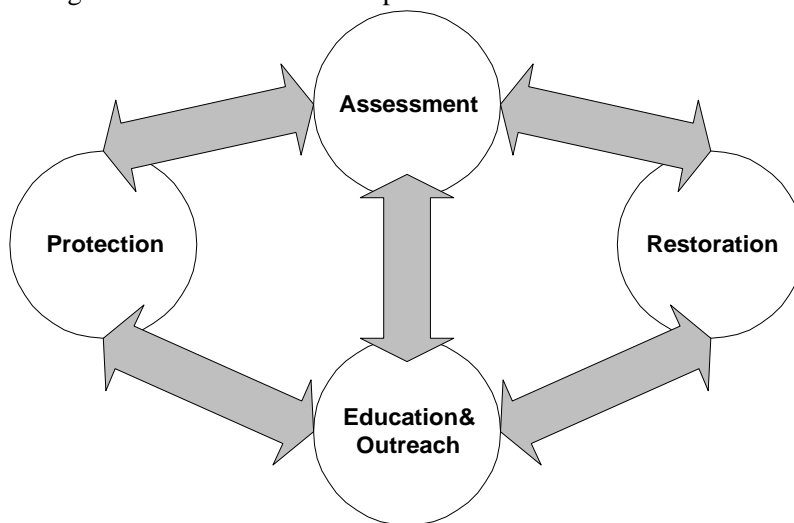
Over the last few years, WRIA2 has concentrated on performing assessments necessary to fill critical data gaps to document the important habitats in the San Juans and to have a better understanding of how, when and where salmon are utilizing San Juan County's shorelines and marine waters. This is the highest priority action(s) identified in the San Juan County Salmon Recovery Chapter:

The key goal in San Juan County is to identify critical habitats and ecosystem interactions in order to develop protection and restoration actions that will be most effective in moving populations of Puget Sound Chinook towards recovery. In San Juan County (WRIA2) protection of high quality nearshore marine habitat is the top salmon recovery goal. The current prioritized action strategy to meet the protection goal is:

1. Assessment Projects – fulfilling critical data gaps via assessments which will enhance and support protection and identify needs and opportunities for restoration;
2. Protection Projects – includes data sharing, stewardship, acquisition and easements, incentives and education;
3. Restoration Projects – to be based on habitat condition assessments.

Assessments ranked first for WRIA2 because - at least for the next several years - better information will significantly enhance the use of existing voluntary and regulatory tools for nearshore habitat protection and restoration.

The following diagram illustrates the intended inter-connections among the three strategic arms and the relationship to the shared outreach and education component.



Since multiple assessments have now been completed in WRIA2, a workshop was hosted by the Lead Entity in January to bring together the citizen and technical advisory groups (CAG & TAG), local sponsors and local resource managers, Puget Sound Recovery Implementation Technical Team (RITT) members, regional and tribal representatives along with state and federal agency representatives to receive an overview of the recent assessment results. The groups also started discussing what the assessment information may mean and how WRIA2 may need to update the local work plan to utilize the new information.

Additional adaptive management discussions have been occurring since January with the local salmon TAG and the Marine Resources Committee (CAG) Salmon Subcommittee. The adaptive management matrix provided by the RITT has been instrumental in these discussions and has helped highlight that San Juan County has achieved, or is very close to achieving, a majority of the original recovery chapter goals and actions. The matrix exercise and discussion documented that only a couple of additional assessments are still needed and also highlighted a few areas where additional work is needed.

The local salmon groups plan to continue these adaptive management conversations over the next year and will continue to complete additional sections of the matrix to help identify next steps for updating the local work plan and possibly the need to update the local salmon recovery chapter.

This context is helpful background information to provide as we respond to the questions being asked for this 2009 work plan update:

Consistency Question

1. What are the actions and/or suites of actions needed for the next three years to implement your salmon recovery chapter as part of the regional recovery effort?

The 3 year work plan spreadsheet with the list of project and programmatic actions is included with this narrative. The descriptions from the HWS have also been included with the projects in the spreadsheet and a brief summary for each section is also provided later in this narrative.

Pace/Status Question

2. What is the status of actions underway per your recovery plan chapter? Is this on pace with the goals of your recovery plan?

As noted previously, the adaptive management guidance and matrix provided by the RITT helped document the status of the strategies and actions outlined in the WRIA2 recovery chapter. Most of the actions outlined in the chapter have been or will be completed in the next year or so. Documenting the status of the plan's actions in the matrix also helped identify where there are a few critical data gaps that still exist such as mapping of feeder bluffs and completing the Class I beach inventory.

The WRIA2 salmon recovery chapter does not have a timeline for actions so the pace had not been established in the plan, however, since WRIA2 has completed many actions listed in the chapter we may be ready to update the local SJC chapter in advance of other watersheds.

3. What is the general status of implementation towards your habitat restoration, habitat protection, harvest management, and hatchery management goals? Progress can be tracked in terms of 'not started, little progress, some progress, or complete' or in more detail if you choose.

The primary goals of the local chapter are to fill critical data gaps, document the important habitats in the San Juans, and to have a better understanding of how, when and where salmon are

utilizing San Juan County's shorelines and marine waters. Now that these data gaps identified in the chapter are complete or nearly complete, we will now analyze and use the information for prioritization of key actions for protection and restoration. As noted, many original actions are completed or will be completed in the next couple of years, however some actions are more programmatic and will continue.

Sequence/Timing

4. What are the top implementation priorities in your recovery plan in terms of specific actions or theme/suites of actions? How are these top priorities being sequenced in the next three years? What do you need to be successful in implementing these priorities?

The top priorities, as previously noted, in WRIA2 are protection actions and assessments to fill data gaps. We may need support to complete the final assessments for feeder bluff mapping and the Class I beach inventory. Assessments will then lead to restoration and protection actions.

We acknowledge that we still need to prioritize our protection and restoration actions. We anticipate that the results of the "Big Picture" project will provide us with information regarding fish utilization of the San Juans to be able to formalize a prioritization schema. Once the results of the "Big Picture" project are completed we will need to re-run the *Salmon Habitat Protection Blueprint* so that it now includes the salmon data to prioritize key locations for protection efforts such as acquisitions or conservation easements and also for restoration actions.

We have been using assessments to lead to restoration projects. The *Nearshore Impact Assessment* and the *Soft Shore Protection Blueprint for San Juan County Forage Fish Beaches* identified a number of restoration projects in the county and have led to some of these projects being funded in previous grant rounds and additional ones are being proposed for this grant round.

Assessments have also been used for protection efforts, such as being used in the CAO Update i.e. the eelgrass, kelp, and forage fish spawning beach maps. We also have additional assessments in progress or to be funded in the work plan that will feed into the SMP Update which may possibly begin later in 2009 and is scheduled for completion in 2012.

Next Big Challenge

5. Do these top priorities reflect a change in any way from the previous three-year work program? Have there been any significant changes in the strategy or approach for salmon recovery in your watershed? If so, how & why?

No, we have continued - frequently in the face of significant opposition - to pursue our recovery chapter's goals of filling critical data gaps. Additionally, we have sought funding for restoration and protection projects when the assessments and feasibility results have supported them. Thus we have been diligently following the goals and strategies laid out in our recovery chapter.

6. What is the status or trends of habitat and salmon populations in your watershed?

Our focus has been on obtaining a fundamental understanding of the role of the nearshore and specifically, the role of the San Juans in supporting salmon - their habitats and food web. Thus, we essentially have baseline data now for critical habitats such as extent of eelgrass, kelp, documented forage fish beaches, etc. And soon, we will have information indicating which nearshore habitats appear to be of greatest value to juvenile migrating salmon.

We will now be evaluating what it is we should be monitoring, for example do we repeat the baseline habitat assessments every x years to determine the trends of whether we are gaining or losing these habitats? Do we repeat the juvenile fish utilization study in x years to determine change analysis of the resource(s) in the San Juans? Discussions with the Marine Resources Committee (MRC) will continue in the context of their Marine Stewardship Area (MSA) Monitoring Plan regarding what other things should be monitored in our nearshore environment, i.e. water quality, additional species presence and/or abundance, threats, other habitat trends, etc?

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

- Consistent funding for the local LE Program will continue to be at risk as the County is no longer providing any funding.
- Support to keep the local Adaptive Management (AM) conversation and process occurring. We look forward to the meeting the end of June to formalize the local AM process.
- We may require assistance in the not too distant future in potentially updating the WRIA2 recovery chapter. Do we need regional and/or federal support, approval, guidance, assistance to do so?
- The results of the San Juan Initiative highlighted the need for basic County infrastructure without which there is little support for existing and future regulatory protections. The needs identified via the SJI were: (see Non-Capital section for additional details)
 - Regularity compliance and enforcement,
 - Technical assistance for landowners.This issue has been exacerbated further over the last few months as San Juan County's budget deficit is estimated currently to be a \$1-2.5 million dollar shortfall so planners, permit coordinators, and enforcement staff are being significantly reduced.
- Additionally, state natural resource agencies such as DNR and WDFW have significantly reduced their resources, thus incurring additional losses for monitoring and survey work. WRIA2 will be forced to find funding to continue tracking local resources.
- Guidance on what we should be monitoring, and how we fund it? It took us a decade to cobble together the funding to get to our current "baseline" assessments. Based on our past experience, there doesn't appear to be any support to continue funding assessments and certainly even less interest in funding monitoring.

Work Plan

Previously, since WRIA2 never had a place to track projects, the 3 year work plan spreadsheet by default became the place to document known projects. Thus the previous spreadsheet(s) documented all identified projects and programs necessary for salmon recovery. With the implementation of the Habitat Work Schedule (HWS) over this last year, the 3 year work plan spreadsheet is a more accurate representation of what projects are currently in progress, can be started in the next 3 years, or can be completed over the 3 year period. Additionally some projects which are really programs are ongoing and thus would extend beyond the 3 year timeframe.

In addition to the salmon recovery habitat projects, we have chosen to also populate the HWS with programmatic efforts. Thus, we are populating the Habitat Work Schedule (HWS) with all salmon recovery activities in San Juan County.

Prioritization

Projects in the 3 year plan are prioritized based on Tiers. None of the projects in the plan are prioritized beyond the overall tiers.

- Tier I projects are projects which address the highest priority work such as protection actions or assessments of critical data gaps that will help in future prioritization of protection and restoration actions.
- Tier II projects are restoration projects. It is anticipated that Tier II restoration projects would become higher priority if/when they are supported by, or are the result of, assessment results that support the restoration activity.

We expect that when the results of the “*Big Picture*” project become available in the next few years that habitat type and spatial prioritization will become more likely.

Overview

The issues facing WRIA 2 are those of protecting quality habitat and restoring modified or degraded habitat. Much of the 408 miles of shoreline is high quality but pressure from development is impacting nearshore areas and water quality. San Juan County is experiencing some of the most rapid growth in Washington State with shoreline and nearshore habitats becoming increasingly stressed from residential and urban development and recreational / tourism uses. Past agricultural practices and water withdrawals have degraded the limited freshwater spawning and rearing habitats in the islands. Freshwater quantity issues exist due to diversions from historic watersheds, changing the flow into streams that historically had salmon runs. Fish barriers from roads, bridges and culverts exist. Water quality is affected by failing septic systems, wastewater effluent and contaminants. Inputs of water and air pollution from outside of the County may also be affecting nearshore habitat quality. Marine waters are impacted by point and non-point pollution at fuel docks and marinas and from potential oil spills.

Once critical habitats have been identified for salmon and their prey, protection and restoration of these habitats will be a priority. Additionally, as water quality and quantity issues are better documented and understood protection from these impacts become of interest to the community and are also important to address.

Capital Projects

San Juan County has over 400 miles of shoreline to evaluate in light of habitat for salmon and their prey. Restoration projects are supported based on the results of previous assessment work such as the *Nearshore Impact Assessment* and the *Soft Shore Protection Blueprint for San Juan County Forage Fish Beaches* and due to previously funded feasibility studies such as for Deer Harbor, Thatcher Bay and Garrison Creek. These projects will increase habitat quality for salmon and their prey.

The acquisitions in the work plan would permanently protect significant shoreline areas in False Bay and Westcott Bay. The Cascade Creek acquisition would protect a significant portion of the only remaining unprotected sections of Cascade Creek along with adjacent tidelands. Cascade Creek is one of the very few year round fresh water streams in the San Juans.

Non-Capital Projects

The work plan highlights a number of protection actions that are the primary focus of salmon recovery work in the San Juans. Once the results of the “*Big Picture*” project are completed and the results of the *Shoreline Modification Inventory*, it will be necessary to re-run the *Salmon Habitat Protection Blueprint* including the salmon data and impacted locations to prioritize key locations for protection efforts such as acquisitions or conservation easements and also for restoration actions.

Protection actions are much more than just acquisitions or conservation easements and include all of the work necessary to educate the public on why salmon are critical and necessary resources for humans and

other species, what issues are occurring in our natural environment, and information regarding how to manage and steward natural resources. This is being carried out via a number of Education and Outreach programmatic activities working with a number of local organizations.

Protection is also ensuring that regulatory and voluntary actions are effective and require working with local organizations including San Juan County government to highlight existing voluntary incentive protection programs, working to create new incentive programs, implementing protective regulations via the CAO Update and the future SMP Update, and implementing County code which supports LID techniques and projects.

The Lead Entity Coordinator has actively participated in the CAO Update Committee meetings through the year and recently has been the representative for the Marine Resources Committee on the CAO Committee. Direct participation in this process has led to best available science and many of the previously funded assessments being actively considered as the CAO Committee makes its decisions. The results of the CAO Update will be one of the more important long term and far reaching actions that will provide greater protection for WRIA2's wetlands, streams and shorelines.

The results of the *Shoreline Modification Inventory* and completing the feeder bluff and Class I beach mapping are projects that will provide critical components necessary for the upcoming SMP Update scheduled to start in 2010, possibly in late 2009 if funding can be made available.

The *Ecosystem Based San Juan Initiative(SJI)* led by a broad constituency of volunteer community leaders and regional resource managers, evaluated how successful local volunteer, incentive, regulatory and education programs are in securing the vitality of our natural resources for future generations.

The results of the SJI are now highlighted as separate habitat protection projects:

- *Education and Technical Assistance to Improve Protection,*
- *Improving Enforcement,*
- *Improving Incentives for Shoreline Protection,*

Some of these projects/programs are in the process of being implemented. However, some of this work requires support and/or resources from San Juan County staff which is difficult with the current budget issues and lay offs. Most of these projects/programs need additional funding in order to implement the key results of the SJI project.

Outreach and Education

WRIA2 is seasonally affected by human population increases, both from summer residents and visitors. Two approaches to achieving our goals must be made: residents and businesses need information and encouragement to develop and steward their property in a "salmon friendly" manner and visitors need information on how their actions will benefit the ecosystem in San Juan County. Educational outreach has several vectors: scientists in the classroom, salmon in the schools program, adult education and lecture series, etc. The Beach Watchers program began in 2006 and focuses on ecosystem awareness for residents and visitors to San Juan County. Educational outreach includes workshops and classroom experiences for residents and information exchange at marinas and ferry terminals for visitors.

Guidance is needed for private citizens and governments that will lead to conservation and preservation of Chinook salmon, forage fish and their critical habitats. Technical assistance is aimed at managers to keep them knowledgeable about research findings and habitat issues. Public education is aimed at all age groups of county residents. School children will learn the importance of marine habitats and there will be workshops for landowners to acquaint them with "best management practices" of their property for salmon and forage fish. The "Salmon in the Schools" program is aimed at 4th grade students where they spend a semester learning about Chinook salmon and rearing juveniles for release.

Increased awareness of managers and citizens of proactive methods they can use as part of the San Juan County Marine Stewardship Area (MSA) is a key component of the outreach work in WRIA2 and is spearheaded by the MRC. An understanding of the links between watersheds, land use, and nearshore habitats are emphasized.

The Lead Entity and the MRC combined their resources in 2008 to hire a very part time Education & Outreach Coordinator to help with much needed public outreach and education and message coordination. These two programs with the guidance of the Outreach Coordinator create an ongoing electronic newsletter titled "Stewardship Connections" to help highlight local marine issues, actions and events. Additionally, the Outreach Coordinator is coordinating the messaging and efforts of most of the local organizations providing education and outreach programs. The coordinator facilitates regular meetings with these participating organizations.

Technical Assistance to landowners regarding how to develop and steward their property is a critical component in being able to modify behaviors and to create a "stewardship ethic." A key result of the SJI documented the need for technical assistance in a variety of forms from web site information to on the ground assistance. They are attempting to resolve this need through partnerships via their *Education and Technical Assistance to Improve Protection* project.

Salmon Recovery Coordination/Implementation

Each year more is asked of the Lead Entity Coordinators throughout the state yet the base funding to support salary, travel, supplies and office expenses has not increased since 1999 although the Lead Entity role has expanded significantly. In 2006 San Juan County increased their funding portion to ensure a full-time Lead Entity Coordinator position. Due to budget issues, as of 2009 San Juan County no longer provides any funding for the Lead Entity program so it must be fully grant funded. Additionally, the County now requires 15% from any grants supporting the program so the need for funding is greater each year.

There are currently over 20 governmental and non-governmental partners involved in conservation, education, research, planning and managing the marine resources in San Juan County. The Lead Entity Coordinator is becoming a clearing-house of ideas, information and actions along with the primary point of contact for any and all habitat related projects in the county. The Lead Entity Coordinator is necessary to promote collaboration, eliminate redundancy and focus on priorities among the many partner organizations.

The Lead Entity program wish list includes having a fully funded position that is not at risk during county budget crises. And could use additional support to increase local capacity through some part time help such as a Department Assistant to provide general administrative support and/or to provide support for contracting, grant billing, reporting and new grant development.

Instream Flow Protection

KWIAHT and Wild Fish Conservancy along with SJC Health Department and DOE are working to monitor some of the streams in SJC. WA Water Trust is interested in evaluating the water rights, i.e. water budget, in critical watersheds to identify areas where fresh water restoration projects would have water available for salmon.

Currently there is no real "owner" for surface water, flow issues, and freshwater monitoring in the county. The Lead Entity Coordinator has attended the Water Resources Management (WRMC) meetings to help keep this issue highlighted as an area of importance. The WRMC is now evaluating their role in determining watershed capacity, water budgets and in-stream flow concerns.

Monitoring

The local salmon groups as part of their Adaptive Management process plan to evaluate local monitoring needs. Key questions revolve around what it is we should be monitoring for salmon recovery in a predominantly nearshore environment. For example do we repeat the various assessments every few years to determine change analysis of the resource(s) in the San Juans? Guidance is requested on what we should be monitoring, and also how we fund it? It took us a decade to cobble together the funding to get to our current "baseline" assessments. It doesn't appear that there is any support to continue funding assessments and certainly even less interest in funding monitoring.

The Marine Resources Committee (MRC) has drafted a monitoring plan for the Marine Stewardship Area (MSA). The MSA Plan has Pacific Salmon as a target and the Lead Entity is actively involved in the Science Subcommittee who developed the monitoring plan. The next steps for the MSA Monitoring Plan are a peer review of the plan, prioritization of actions outlined in the plan, and overall coordination of the various monitoring efforts occurring in the San Juans. Discussions with the MRC will continue in the context of their MSA Monitoring. As the salmon recovery monitoring is developed it will also be incorporated in the MSA Monitoring Plan.

Other (Hatchery)

A key goal in WRIA2 is to understand the importance of nearshore habitats to Chinook populations. Although thus far in our fish utilization studies we appear to see predominantly non-tagged (wild?) fish in the San Juans it is known that hatchery fish originating from outside of WRIA2 are also utilizing the San Juans. Interactions of wild Chinook populations with hatchery fish need to be better understood.

There is one small hatchery (Glenwood Springs) in the San Juans run by Long Live the Kings (LLTK) and is located on Orcas Island. There are special aspects of the Glenwood Springs hatchery program, such as natural rearing, that could be of importance in how these fish use the local habitats. We have seen the number of tagged fish caught in the East Sound area jump significantly when the local hatchery fish are released but we don't as yet know where they disperse. LLTK are coded wire tagging and fin clipping all of their fish and it would be beneficial to better understand how these local hatchery fish are utilizing WRIA2. This research question may start to be answered via a potential partnership on the *Resident and Migrant Salmon Nearshore Habitat Identification - Telemetry Study* to acoustically tag local hatchery fish to attempt to map their migration patterns and possible interactions with wild fish.

A conceptual model of the local salmon recovery strategy for San Juan County follows. The model was developed as a mechanism to provide a brief overview of the local salmon recovery strategy for WRIA 2.

San Juan County Salmon Recovery Plan Conceptual Model

