The Snohomish River Basin

Building a Healthy Watershed

Snohomish Basin
Salmon Recovery Forum

Snoqualmie ~ Watershed
Forum

Introduction

Overview of the Snohomish Basin 10-Year Conservation Plan and 3-Year Work Planning

The *Snohomish River Basin Salmon Conservation Plan* (*Plan,* 2005) is a multi-salmonid strategy that emphasizes two Endangered Species Act (ESA) listed species, Chinook salmon and bull trout char, as well as non-listed coho, all of which are used as proxies for other salmonids in the Basin. The *Plan*, developed by the 41-member Snohomish Basin Salmon Recovery Forum (the Forum), incorporates actions across habitat, harvest and hatchery management to bring the listed wild stocks back to healthy, harvestable levels.

The Snohomish River Basin 3-year Work Plan update is a combination of documents that provides direction and a technical foundation for salmon recovery in the Basin. This work is outlined for the next 3 years and derives from the 10-year *Plan*. Included in the 2012 3-year Work Plan update are: a narrative, a spreadsheet containing all of the capital, programmatic, harvest and hatchery actions that outline our strategy for the next three years of the recovery process, and a map showing the locations of habitat restoration projects in the Basin.

The Puget Sound Partnership has established the following 3-Year work plan goals:

1. To provide a forum for watershed groups, the Recovery Implementation Technical Team (RITT), and Puget Sound Partnership (PSP) staff to discuss the work, status, and needs of salmon recovery in each salmon recovery watershed chapter and regionally;
2. To have a tool that documents the work, status, and needs of salmon recovery per each salmon recovery watershed chapter for the next three years that can be rolled up into a regional statement of the funding and capacity needs, current status, and existing work underway;
3. To be a tool for identifying priority projects for current and future funding opportunities;
4. To document changes in the implementation of each salmon recovery watershed chapter.

These goals will be addressed through using the work plan to create clear linkages between Plan Strategies / benchmarks and implementation progress in order to identify priorities actions and highlight these actions on our work list.

Snohomish Basin uses the 3-Year Work Plan to meet these goals:

1. Run an inclusive work planning process that is representative of the diversity of work being conducted throughout the basin.
2. Utilize the work plan as a communication tool for :
    - Project and program sponsors
    - Basin staff
    - Technical and Policy Development Committees
    - The Snohomish Basin Salmon Recovery Forum

The Snohomish River Basin Three-Year Work Program identifies work planned over a three-year period to advance salmon recovery through habitat protection, restoration, hatchery operations, harvest management, and integration of multi-H activities. For 2012, the total list of projects reflects actions being taken by project sponsors throughout the basin as well as projects that could take place given different funding levels, the opportunistic nature of restoration, and recommendations from the *Plan*. The project list is largely self-selected by project sponsors, based on guidance from the *Plan* (priorities by Sub-basin Strategy Group), landowner willingness, match and other readiness criteria. This list therefore represents a comprehensive list of actions project sponsors are actively working to advance. These actions are informed by recommended specific sequencing laid out in the ten-year *Plan*, but are not to be considered a definitive list of projects that will absolutely take place over the next three years.

All projects in the work program are consistent with the priorities laid out in the *Plan*. In addition to capital and operating projects, the work program highlights protection measures, harvest, hatchery, and H-integration needs in the basin. The narrative is structured by the questions posed by the Puget Sound Partnership and Recovery Implementation Technical Team:

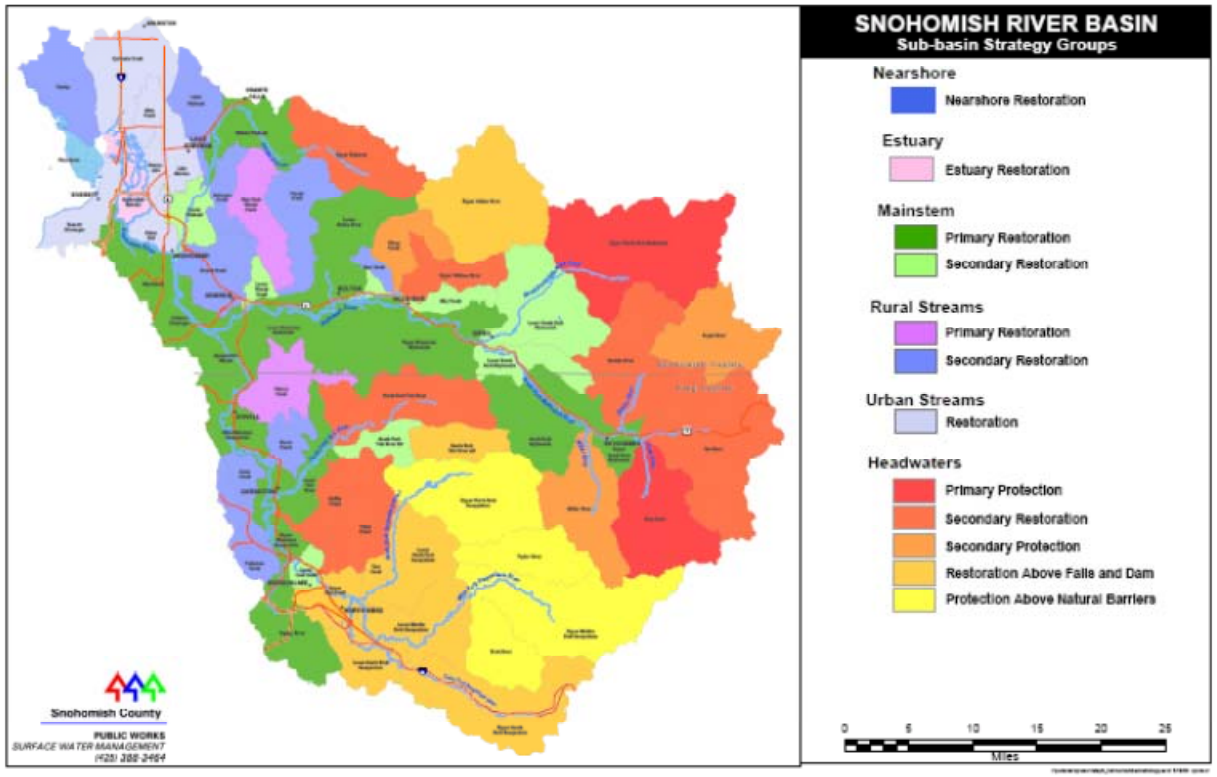
- Consistency – we provide framework for habitat, hatchery, and harvest developed by the Snohomish River Basin Conservation Plan (2005) and discuss work proposed under this 3-year work plan
- Pace/Status – we identify 10-year benchmarks developed in the Snohomish River Basin Conservation Plan (2005), evaluate progress toward those benchmarks, and link this information to a prioritization scheme
- Sequence/Timing – we provide a general discussion of prioritization, sequencing, and timing considerations
- The Next Big Challenge – we highlight any changes in approach or new implementation challenges

Strategy, Progress, Priorities, and Anticipated 3-Year Outcomes

Consistency Question: *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?*

Habitat Overview: Sub-basin Strategy Groups Identify Protection and Restoration Priority Areas

As part of the development of the habitat strategic framework in the Snohomish River Basin Conservation Plan, each of 62 sub-basins and nearshore areas was assigned to one of twelve Sub-basin Strategy Groups (SBSG). Each SBSG is characterized by three main factors: basin location (geomorphic, land-use, role in supporting salmon life history stage), condition of watershed processes (hydrology, sediment, and riparian), and current and potential salmonid use (Appendix A). Through the use of SBSGs, the conservation plan tailors the recovery strategy through the identification and prioritization of specific preservation and restoration actions at the Sub-basin Strategy Group level.



Habitat Protection

Framework: In order to achieve a net gain of salmon habitat, restoration actions must be coupled with the protection and preservation of existing functional habitat. Protection actions to preserve high priority habitat and watershed function are given the highest priority within every Sub-basin Strategy Group (Appendix B). While much of the land in WRIA 7 is forested and held by state (12.1%) and federal governments (37.6%), private forestry remains a significant land use. Some areas are subject to active logging and associated activities, such as road-building, while others are within protected wilderness areas. Thus, development risk (and resulting impairment to basin hydrology and increases in impervious area) is considered to be a lower risk in these areas. While forest protection is important, the Plan's protection efforts are largely focused on the remaining portions of the basin where further land conversion and habitat degradation are likely, primarily within unincorporated King and Snohomish counties. Incorporated areas also have a role to play habitat protection.

Summarized 3-Year Outcomes: Habitat protection progress will greatly be advanced by EPA Puget Sound Watershed Management Assistance funds Snohomish Basin partners (Snohomish County, Tulalip Tribes, and King County) recently received (Project ID 07-NC-014). This 4-year grant will enable the basin to develop a protection strategy for hydrologic processes. In addition to this grant, the Tulalip Tribes are finalizing with the partners to advance a pilot project following our proposed strategy methodology in the Pilchuck River Sub-basin. At the end of the larger EPA-funded grant, the analysis will facilitate subsequent work covered by the grant, guiding strategic habitat protection actions that will abate threats to habitat. The Snohomish Basin is also working to establish cumulative effectiveness elements in the basin-wide monitoring plan. This monitoring will provide a systematic evaluation of habitat change, capturing both habitat improvements and degradation, throughout the basin.

In advance of a more developed protection strategy and information about habitat change, several habitat protection projects are included in the 3-year work program project list, illustrating the need for early action to advance protection efforts. These projects include the development of an acquisition strategy along the nearshore, acquisitions along priority reaches of mainstem rivers to protect intact juvenile rearing habitat, and acquisitions in the rural and headwater areas aimed at protecting hydrologic and sediment watershed processes (all identified as Tier 1 actions in the Plan). Additional non-capital efforts encourage best management practice implementation and land-use specific stewardship, and outreach for general environmental awareness. Analysis results from several projects highlight that habitat protection, in its current guise, may not be protecting habitat. The Treaty Tribes' Treaty Rights At Risk paper, and the NMFS' 2011 Implementation Status Report both point to losses in habitat, whether from structural issues within the regulatory framework to implementation and enforcement of regulations. Work with the region and with the basin's EPA-funded grant will be a large first step in addressing this issue. Furthermore, with new regulations in place, effectiveness results will take time.

Funding: Funding requirements for habitat protection are difficult to summarize. Funds for acquisition are the most straight forward to calculate, but only capture one approach out of many needed for protection. Costs for other tools often associated with personnel costs to provide technical assistance,

conduct landowner outreach, and interface on policy issues. Given that investments made in habitat protection have broad societal benefits and costs, it is necessary to more rigorously evaluate funding mechanisms and formulate a funding strategy.

Changes between 2011 and 2012: This work plan continues to reflect the primary importance of habitat protection identified in the work plan and sequencing issues related to habitat protection and restoration. With the funding of EPA's Puget Sound Watershed Management Assistance Funds and current efforts to investigate market-based mechanisms for protection, we anticipate that future work plans will be more strategic and directive in identifying protection needs and linking goals to available tools. Greater effort to secure rights to real property in the headwaters by Forterra would improve protection of habitat forming processes; however, acquisition of interest in real property has been considered a capital/restoration project in the basin, because most properties require some level of restoration in the watershed. As outlined in the section below, the funding needed for this acquisition work is significant, skewing the funding allocation outlined by the Forum in the *Plan*.

Habitat Restoration

Framework: The loss of rearing habitat quantity and quality along the mainstem rivers, estuary and nearshore is thought to be the primary habitat factor in the decline of Snohomish Basin Chinook salmon. In other words, the basin is thought to contain sufficient high-quality spawning habitat to support recovery, but subsequent juvenile production is thought to be severely limited by the disconnection of floodplain and estuarine habitats and degradation of nearshore habitat. The *Plan* calls for actions focused on restoring and preserving watershed processes across the basin, with special emphasis on rearing habitat improvements in these high-priority environments. For the first decade of *Plan* implementation, a generalized allocation of resources between the strategy groups includes:

- 80% of basin-wide capital project resources should be directed toward restoration and protection efforts in the Nearshore, Estuary, and Mainstem Sub-basin Strategy Groups (SBSG).
- 15% of basin-wide capital project resources should be funded toward restoration and protection efforts in lowland tributaries.
- 5% effort should be directed toward effort in headwater areas.

The 10-year target allocation is not only based primarily on ecological prioritization, but also reflects practical and political considerations.

Summarized 3-Year Outcomes:

- In the Nearshore SBSG, the sediment assessment is nearly complete and has identified four nourishment projects, including Howarth Park. These projects, along with the Port's expansion of Jetty Island will put the basin almost on track to meet the nearshore 10-year target.
- In the Estuary SBSG, project sponsors continue to advance multiple large tidal marsh projects. Projects and planned work indicate the tidal marsh acreage needed to meet 10-year benchmarks may be under construction by 2015. Recent work by Snohomish County, the tribes and agricultural

interests is bearing fruit through the Sustainable Lands Strategy, potentially giving estuary projects much-needed political approval to advance. Funding continues to be the key factor limiting estuary restoration projects, with their typically high cost per acre to restore, at ~$36.9k per acre.

- Construction is complete or nearly complete on several large scale Mainstem Primary SBSG restoration projects with other projects currently advancing. Project sponsors continue to achieve good spatial distribution of these projects, as work is being advanced in the Snohomish, Pilchuck, Snoqualmie, Skykomish, and Tolt rivers. Despite this effort, it is not clear if we will be on track to meet 10-year benchmarks at the end of the 3 year period covered by the work plan. Completed projects have been removed from the plan while assessment and feasibility studies continue to identify new projects to move toward construction. While we appear to be on pace to meet riparian benchmarks based on project implementation data, riparian loss since the adoption of the plan appears to be significant enough to require more restoration (WDFW, SnoCo reports). Maintaining the pace of riparian restoration will be important despite these issues.
- The Mainstem Secondary SBSG is not well represented by the project list, which is congruent with the prioritization established in the plan and reflects the reality of resources to advance lower priority projects; however, King County, USFS and others are starting to evaluate actions that would direct activities within this SBSG.
- Work in Rural SBSG is coordinated among multiple basin partners and assessments direct restoration priorities. In the Rural Primary Subbasin Strategy Group, the habitat and geomorphic assessment in West Fork Woods Creek Subbasin is nearly complete and will direct actions by a number of project sponsors. Work in Cherry Creek also has a long history of collaborative and sustained effort, and actions there look likely to advance. While many riparian and fish passage opportunities are identified in this work plan, opportunities for restoring side-channel habitat are lacking.
- In the Urban Subbasin Strategy group, efforts have been funded largely through sources outside the basin's purview. Such projects are not always reported by these sponsors, though actions are taking place. As mentioned in Table 2, implementation in the 3-year Work Plan does not appear to be on-track to meet the 10-year targets. Staff will need to evaluate progress in the urban areas more closely for implementation monitoring.
- On page 8-7 of the *Plan*, the recommended 10-year strategy for prioritizing and replacing fish passage culverts is to replace 60 culverts within a half mile of focus reaches (mainstem rivers, estuary and nearshore). Many more culverts have been prioritized and replaced. Implementation monitoring is needed to evaluate where these culverts have been replaced, the biological benefit of this work relative to other priorities, such as where off-channel habitat is potentially a higher priority for addressing productivity. Basin staff will need to evaluate whether to lower the sequence rank of culvert projects in the future to reflect the level of effort and need in the basin.

Funding: Identified 3-year funding needs are about $46.9 Million for about $101 Million in total project costs, roughly equaling the Forum annual funding goal of $15 – $17M per year, using the total cost of identified restoration projects, subtracting Marshland and the Mukilteo Creosote project as outliers, then subtracting funds already in-hand. This method takes into consideration that some projects, such as Qwuloolt are already fully funded, yet remain on the list as a continuing activity. Of the identified funding needs, roughly 83% is allocated to the nearshore, estuary and mainstem rivers; roughly 3% to the lowland tributaries; and 13.5% to the headwaters. This allocation does not match the allocation of effort identified in the *Plan*, mostly because of efforts by Forterra to secure easements and acquisitions in the headwaters areas in support of protecting the hydrologic and sediment processes in the basin. While

anticipated funding needs generally correspond with both overall funding targets and allocation splits, it is important to highlight that past analysis of restoration funding has identified that we have been implementing the habitat part of the Plan at a rate of 34% per year. As is expected given the past funding deficit, implementation monitoring (p. 12) confirms that we are not on pace to meet our benchmarks. Even assuming no net loss in habitat function (optimistic, given the discussion under protection above), we will need to increase the rate of implementation significantly to meet our 10 year-benchmarks. The current backlog of project work stands at ~$64M and it is unlikely that we will be able to address this deficit with the proposed work plan. Basin staff will be conducting a more in-depth analysis of implementation and funding in advance of revising our funding strategy. Regardless, unless investment in salmon recovery is significantly increased implementation of the 10-year plan will take 30 years, seriously impeding the recovery process and reducing the likelihood that the Forum's attempt at using resiliency to mitigate some of the effects of climate change would be operative.

Changes between 2011 and 2012: Twenty-one projects representing approximately $7.6 Million worth of work were completed last year. This number underestimates the amount of work accomplished last year, because many projects remain on this list due to maintenance needs and several of the projects were fully funded outside of last year. Additional reasons for removal included: need for further prioritization (6), project is being addressed under a different project (1), change in sponsor priorities (2), emergency repair preclude restoration, and no reason identified (1). Nineteen new habitat capital projects were added to the work plan in 2011. Several of these projects were the result of new ways of tracking projects within Snohomish County.

Harvest Management

Framework: Snohomish Chinook are harvested as part of large, mixed-stock fisheries from southeast Alaska to north Puget Sound and as bycatch in Puget Sound fisheries directed at harvestable hatchery Chinook and other salmon species. Harvest rates have declined more or less steadily since the inception of the Pacific Salmon Treaty in the mid-1980s and especially beginning in the mid-1990s just before the ESA-listing of Puget Sound Chinook salmon in 1998. The role of fishery management in the Plan is based on the premise that harvest can be limited to a rate that will not impede recovery as long as other actions (habitat protection, habitat restoration, and hatchery management) are also implemented to promote recovery. The current harvest plan[1] assumes that sustained annual harvest rates below 21% (as measured by the FRAM[2] model) will enable the Snohomish Chinook populations to increase in abundance and productivity consistent with the quantity and quality of habitat available throughout their life cycle. The Plan also hypothesizes that this exploitation rate is low enough to improve spatial distribution, life history diversity, and better represent a natural distribution of age classes in the population.

[1] Guidelines for overall harvest impacts on Snohomish Chinook are included in the *Comprehensive Management Plan for Puget Sound Chinook: Harvest Management Component*, 2010. This plan is currently under review by NOAA and, when adopted, will be in effect through April 30, 2014.

[2] The Fishery Regulation Assessment Model is used by state and tribal comanagers and the Pacific Fishery Management Council annually to evaluate the cumulative effects of all harvest-related mortality on west coast Chinook and coho salmon stocks.

Summarized 3-Year Outcomes: The most important outcome for the next three years is to achieve both the preseason planned, and the postseason realized, overall exploitation rates below the 0.21 (as measured by FRAM) guideline. This should be easier to reach with reduced Canadian and Alaskan interceptions due to the new Pacific Salmon Treaty annex (see below). We have completed sample collections and genetic analyses necessary to include the Skykomish population in the DNA baseline for coast-wide stock composition analysis of Chinook salmon fisheries, and the Snoqualmie population will follow. However, this information will not be usable in management until a coast-wide fishery genetic sampling and analysis program is funded and implemented.

Consistency

Funding: The work necessary for planning and managing fisheries according to the harvest management plan is funded through federal, state, and tribal fishery management programs. Coded-wire tagging, tag recovery, laboratory processing of tags, and database maintenance are funded mainly through federal funds made available to state and tribal fishery managers for this purpose. Analysis of stock composition and exploitation rates is funded through Pacific Salmon Commission implementation funds and by state and tribal comanagers in the domestic management process. These are mainly region- or coast-wide programs, and it is difficult to separate the portion of these funds that would be spent to manage Snohomish Chinook. Determination of separate exploitation rates for the Skykomish and Snoqualmie populations, and subsequent development of separate rebuilding exploitation rates for these, is dependent on funding and implementing a coordinated, coast-wide genetic sampling and data analysis program for Chinook fisheries.

Changes between 2011 and 2012: The Chinook annex to the Pacific Salmon Treaty was first implemented in 2009. This annex is reducing harvest levels closer to the 0.21 RER figure for the Snohomish Basin. Given the nature of treaties, this work will continue through the ten-year life of the treaty with few revisions. The co-managers continue to negotiate harvest of Chinook salmon through the processes outlined in the treaty.

Hatchery Management

Framework: The State of Washington and the Tulalip Tribes operate hatchery programs in the Snohomish basin to provide harvest opportunity with minimal effect on natural origin fish. The Plan assumes that these hatcheries can be managed in a way that will not impede recovery, assuming other actions to promote recovery (habitat protection, habitat restoration, and harvest management) are implemented. Hatchery management strategies include: increasing the genetic similarity of the Skykomish hatchery stocks and the Skykomish natural population via integrated broodstock management; evaluating possible negative ecological interactions between hatchery- fish and natural-origin fish; addressing migration delays or blockages for natural-origin fish due to hatchery weirs, and targeting hatchery-origin fish in fisheries. The implementation plan for these strategies is the subject of a 2005 state-tribal Hatchery Memorandum of Understanding (MOU) Agreement between the Washington Department of Wildlife and the Tulalip Tribes as well as an updated Hatchery Action Implementation Plan (HAIP) for the Snohomish basin, which is currently under development[3].

[3] See also "Snohomish Region Hatchery Program Overview", 2009, available from the WDFW and Tulalip Tribes.

Summarized 3-Year Outcomes: We continue to evaluate and annually report on the continuing programs mentioned above. The results of the studies of gene flow and ecological interactions will be applied to modify hatchery management assumptions as soon as new findings become available. The comanagers expect to complete the Snohomish HAIP within the near future.

Funding: Much of the implementation of the hatchery plan is funded through hatchery reform funds granted to WDFW and the Tulalip Tribes. The remainder is funded with normal operations funds available to the comanagers. Monitoring of ecological interactions in the estuary is part of a NOAA Fisheries funded project, with a substantial in-kind contribution made by the Tulalip Tribes. Gene flow studies have been funded through Pacific Salmon Commission LOA funds as well as Hatchery Reform funds granted to the Tulalip Tribes.

Changes between 2010 and 2011: The hatchery management program is substantially the same in 201 as in 2010. Once the Snohomish HAIP is completed, there will likely be some changes.

H-Integration

Framework: Management within each H is already coordinated to some degree with the other H's, as indicated in the above s Consistency monitoring and adaptive management plan, currently under development by the Technical and Policy Development Committees, will enhance this coordination. Ultimately, the question for understanding our progress towards salmon recovery is, *what is the cumulative effectiveness of all our actions, and what is the relative effect of habitat, harvest, and hatchery management on our ability to reach our goal.* Our ability to answer this question will depend on information about resource status over time (such as spawning escapement and juvenile outmigration abundance) and information that enables us to draw relationships between management actions and fish response.

Summarized 3-Year Outcomes: In 2010, the Technical Committee will complete a more detailed version of a monitoring plan, with the Policy Development Committee adding sections to address socio-economic issues and identify an adaptive management framework. Currently, information collected to inform harvest management provides an important dataset to allow us to understand the cumulative impact of H-management over time. Annual estimates of natural spawning escapement are completed by WDFW using a combination of aerial, boat, and foot surveys of redds throughout the basin. The redd counts are expanded by an assumed ratio of fish to redds to derive the estimate of the total number of Chinook salmon spawning naturally in the basin. Since 1997, the spawning escapement estimates have been partitioned into natural- and hatchery-origin components from samples of spawned-out carcasses throughout the basin. Carcasses with thermally-marked otoliths, coded-wire tags, or missing adipose fins are classified as being of hatchery origin, and all others are assumed to be of natural origin. Juvenile out-migrant numbers are estimated annually using traps in the lower Skykomish and Snoqualmie Rivers.

In addition, there are several projects on the work plan that explicitly cross Hs. Integrating hatchery and habitat management include the estimation of the presence of hatchery-origin adult Chinook on the spawning grounds in different habitats throughout the system as well as the artificial passage of Chinook

in the South Fork Skykomish River over Sunset Falls into otherwise inaccessible habitat. Harvest and hatchery integration includes directing fisheries on hatchery production through selective recreational fishing opportunities in Port Gardner – Saratoga Pass area and in the Skykomish River when hatchery-origin Chinook are transiting those areas as well as management of the tribal fishery in Tulalip Bay in time and area to focus on Tulalip Hatchery fish.

Funding: Spawning escapement estimation is funded by WDFW operational funds. The breakout of natural- and hatchery-origin fish is funded mainly through hatchery reform funds competed for annually by the Tulalip Tribes, with in-kind contributions from WDFW. The certainty of hatchery reform funds remaining available into the future is questionable. Juvenile outmigrant smolt trapping operations have been funded annually through Coastal Salmon recovery funds granted to the Tulalip Tribes. Completion of the monitoring plan will also yield a more complete cost picture.

Changes between 2010 and 2011: These programs have not changed substantially between 2010 and 2011. In this work plan we attempt to draw greater attention to projects that have cross-H implications.

Consistency

Pace/Status Question: *What is the status of actions underway per your recovery plan chapter? Is this on pace with the goals of yo the general status of implementation towards your habitat restoration, habitat protection, harvest management, and hatchery management goals?*

The following tables (p. 11-15) show implementation – or activity – progress toward the Plan's restoration targets. It is part of an iterative process in monitoring, reporting and adaptively managing the strategies and actions outlined in the Plan and will continue to evolve in the future. The tables neither reflect the effectiveness of the projects implemented (achieving full ecological function), nor does it reflect the overall changes in the watershed landscape (planted riparian areas vs. areas lost due to development or channel migration). Our restoration actions are long-term investments toward achieving habitat conditions that will support healthy Chinook populations. Some actions, such as removal of a migration barrier, realize immediate impacts, while others such as riparian plantings take decades to reach maturity. While building a mature riparian forest takes time, the actions in the table are critical to our ultimate goal of restoring natural processes. The values in the table also have a range of confidence associated with them. Confidence in the figures is eroded where we have less data on exact overlap with focus reaches, more project sponsors implementing projects, a range of restoration methodologies and approaches to measuring outcomes, and issues of how to quantify restoration outcomes where we "let the river do the work for us." Again, monitoring these actions and their associated effectiveness will evolve and change over time, and both project sponsors and the Technical Committee remain supportive of resolving these issues.

Table 1: Habitat Protection	2005 Intact	Status	3-Year Outcome Needed to be on Track in 3 yrs?	Work Plan Meets this Need?
Nearshore Beaches and Shoreline:		Habitat loss is not systematically monitored throughout the basin. Current status information includes: • Mainstem riparian loss pilot (Snohomish County only) • Snohomish County CAR monitoring • King County CAO monitoring • Acquisition reporting	Snohomish Basin Watershed Characterization and Protection funded and Watershed Characterization and Characterization of reach-scale processes within protection priority sub-basins work elements completed. Tulalip Pilchuck protection pilot project advances the larger Snohomish EPA grant. Development and implementation of Status and Trend (Cumulative Effectiveness) element of Basin Monitoring Plan	Yes
Riparian Areas (focus reaches)	297 acres			
Edge Habitat (focus reaches)	22 miles			
Estuary: Tidal Marsh				
Riparian Areas (focus reaches)	165 acres			
Edge Habitat (focus reaches)	27 miles			
Forest Cover	687 acres			
Mainstem-primary:				
Riparian Areas (focus reaches)	5,991 acres			
Edge Habitat (focus reaches)	236 miles			
Forest Cover	116,633 acres			
Mainstem-secondary:				
Riparian Areas (focus reaches)	2,497 acres			
Edge Habitat (focus reaches)	79 miles			
Forest Cover	44,935 acres			
Rural Streams Primary:				
Riparian Areas (focus reaches)	709 acres			
Forest Cover	18,286 acres			
Rural Streams Secondary:				
Riparian Areas (focus reaches)	258 acres			
Forest Cover	36,624 acres			
Urban Streams				
Riparian Areas (focus reaches)	137 acres			
Forest Cover	8,558 acres			
Headwaters Primary Protection				
Riparian Areas (focus reaches)	1,318 acres			
Forest Cover	61,865 acres			

Table 2: Habitat Restoration	Needed Habitat Gain in 10 years	Progress since 2005	Percent 10-year Benchmark	Currently on Target to Meet Benchmark?	3-Year Outcome Needed to be on Track in 3 yrs?	Work Plan Meets this Need?
Nearshore Beaches/Shoreline	At least 1 mile	0.2 mi	20%	Progress Made	3 Designs, 3,700 ft. restored	**Unknown**
Estuary: Tidal Marsh	1,237 acres	375 acres	30%	Progress Made	at least 646 acres	**Unknown**
Mainstem-primary:						
Restored Edge Habitat	10.4 miles	1.9 mi	18%	No	at least 6.5 mi.	No
Restored Riparian Habitat	256 acres	191 acres	75%	Yes	Unknown, given lack of information about habitat loss/project performance	**Unknown**
Restored Off-channel Habitat	167 acres	25 acres	15%	No	At least 106 acres	No
Large Woody Debris	41 logjams	6	15%	Progress Made	Unknown, given lack of information about habitat loss/project performance	**Unknown**
Mainstem-secondary:						
Restored Riparian Habitat	6 acres		0%	No	4.5 acres	No
Restored Off-channel Habitat	6 acres		0%	No	4.5 acres	No
Rural Streams Primary:						
Restored Riparian Habitat	13 acres	6 acres	46%	Progress Made	5.3 acres	**Unknown**
Restored Off-channel Habitat	10 acres		0%	No	7.5 acres	No
Rural Streams Secondary:						
Restored Riparian Habitat	0	14 acres	met assuming no habitat loss	Yes	Unknown, given lack of information about habitat loss	**Unknown**
Restored Off-channel Habitat	41 acres	7 acres	17%	No	25.5 acres	No
Urban Streams:						
Restored Riparian Habitat	75 acres	21 acres	28%	Progress Made	44.2 acres	No
Restored Off-channel Habitat	0		met assuming no habitat loss	Yes	Unknown, given lack of information about habitat loss	**Unknown**

Table 3: Hatchery Operations	Quantifiable Goal	Information about Progress	Currently on Target to Meet Benchmark?	Priority (High, Medium, Low)	3-Year Outcome Needed to be on Track in 3 yrs?	Work Plan Meets this Need?
Potential negative ecological interactions between hatchery- and natural-origin fish	Finish study and develop more specific goals. Ecological interactions to minimally impact recovery potential. Add a date - goal to establish a more quantifiable benchmark.	Currently studying ecological interactions in freshwater, estuarine and nearshore habitats (NOAA Fisheries and Tulalip). No endpoint for applying results to hatchery programs has been identified.	The effect of ecological interactions is currently unknown. Making progress on research, but need report on results to date.	High	Need analysis of available data. Redesign of studies to focus on hatchery-natural interactions.	
Potential decreased genetic diversity and fitness through hatchery-origin adult spawners straying and interbreeding with natural-origin fish in natural spawning areas	• Short-term Benchmark: PNI > 0.50 • Long-term Goal: PNI > 0.70 • 100% of the broodstock from within the system • 300 to 700 natural origin fish (NOB) used in the integrated broodstock program	1) Annual estimates of PNI determined from gene flow between hatchery- and natural-origin fish. 2) Relate gene flow to proportions of hatchery- and natural-origin fish observed in hatchery and natural escapements.	Yes	High	Continue NOR/HOR proportion assessments and gene flow assessments in hatchery and natural stock components.	
Reduction of NOR escapement due to incorporation of NOB in hatchery broodstock	Restrict taking of NOB to Sunset Falls and upper Wallace River Hatchery returns only. Limit the number of NOB taken from Sunset Falls to a maximum of 20% of the return annually. Prohibit removals of natural-origin fish in years of critical escapement.	1) Number of NOB taken from natural areas relative to total NOR escapement.	On target for PNI now, but need to improve methods to assess gene flow.	High	1) Increase NOB on spawning grounds, 2) Continue NOB monitoring, 3) Improve gene flow monitoring.	
Introduction of non-local hatchery broodstock into the watershed	Use only Skykomish native broodstock to provide gametes for Wallace River and Tulalip Hatcheries.	Percentage of eggs from Skykomish broodstock	Yes	High	1) Maintain 100% of broodstock from Skykomish summer Chinook. 2) Need new Tulalip/WDFW Hatchery MOU Agreement to assure this.	
Migration delay or blockage - Wallace River	200 pairs passed above Wallace Hatchery weir.	Number of Chinook passed above Wallace River Hatchery each year.	See data summary*	Medium	Continue to implement Hatchery MOU Agreement.	
Migration delay or blockage - Tokul Creek steelhead hatchery	Pass all NOR Chinook that reach the Tokul Creek Hatchery to upstream habitat.	Number of [NOR] Chinook passed above Tokul Creek Hatchery each year.	Unknown, need information from WDFW	Medium	Document progress and maintain fish passage program.	

Table 4: Fisheries Management	Quantifiable Goal	Information about Progress	On Target to Meet Benchmark?	Priority (High, Medium, Low)	3-Year Outcome Needed to be on Track in 3 yrs?	Work Plan Meets this Need?
Adoption of a preseason plan consistent with RER guideline	Rebuilding exploitation rate in the plan	Projected annual exploitation rates (total and SUS) from preseason plan.	Consistent w/ plan but not RER (see Snohomish Chinook FRAM 2009 Validation Analysis.xlsx))	High		Yes *
Implementation of fishing plan consistent with preseason plan	Preseason projected exploitation rate	Post-season estimate of exploitation rate (from post-season FRAM run)	Yes, recently (see Snohomish Chinook FRAM 2009 Validation Analysis.xlsx)	High	Continue attention to in season management plus implementation of new PST annex	Yes *
Develop tool to separately assess exploitation rate on Snoqualmie population	Five years of Snoqualmie-specific exploitation rates and productivity are available by 2018.	Samples collected and genetic analysis completed for Snoqualmie GSI baseline. Need to be incorporated into coast-wide baseline.	Regular fishery sampling and processing not started yet. Baseline modification and coast-wide sampling must begin within the next year to get on target. Currently not on target.	Med	1. Have separate Skykomish and Snoqualmie baselines in coast-wide baseline. 2. begin regular GSI fishery sampling and sample processing.	No
Development of Snoqualmie specific RER	Separate Snoqualmie and Skykomish - specific RERs are available by 2019.	RER developed based on Snoqualmie data	Work not started yet. Depends on the above.	Med	Depends on other work. Not ready in three years.	No
Harvest practices do not alter spatial distribution or age distribution of spawners (controlled by ecological factors)	Expected spatial and age distributions under zero harvest.	observed (after harvest) distribution = expected if no harvest	Work not started yet Plan hypothesizes that reduced harvest rates will also result in reduced effects on age and spatial distribution	Low	Next step is to develop model comparing observed and expected distributions	No

Table 5: H - Integration	Quantifiable Goal	Information about Progress	Currently on Target to Meet Benchmark?	Priority (High, Medium, Low)	3-Year Outcome Needed to be on Track in 3 yrs?	Work Plan Meets this Need?
All-H: Natural spawning escapement	1) NOR Numbers increasing towards recovery goal 2) Spatial distribution	1) Annual estimate of natural NOR spawning escapement 2) annual estimates by subwatershed	Uncertain	High	1) 8-year average NOR escapement exceeds previous 8 year average	Yes, except spatial delineation of escapement estimation
All - H: Social capital infrastructure - support diverse recovery efforts and to diffuse outreach messages.	none identified	2 Tribal Governments, 6 local governments, 2 state agencies, 8 non-profits actively involved in program and project identification. 41 agencies and organizations represented on the Forum.	Unknown	High		
Habitat and Harvest: Smolt outmigration monitoring.	NOR numbers increasing towards recovery goal	Annual estimates of NOR outmigrants from Skykomish and Snoqualmie populations	Uncertain	High		
Habitat and Hatchery: Identify hatchery fish where they are so that we can better understand natural fish production.	Mass marking of fish: WRH: All production is adipose fin-marked except for double index tag groups. WRH: 400,000 fingerling released CWT, 50,000 yearling CWT marked. Tulalip Hatchery Chinook: 80% adipose fin-marked (current goal); 100,000 CWT; 100% mass marked with unique thermal otolith marks.	Number of fish marked and tagged annually	Yes	High		
Harvest and Hatchery: Target hatchery fish in harvest	Conduct time-area management in Area 8D and in the Skykomish River, target selective fisheries on adipose fin-marked fish above where and when appropriate.					
Habitat and Hatchery: Pass fish above Sunset Falls to otherwise inaccessible habitat	Pass all fish reaching the Sunset Falls fish trap less the ones needed for hatchery integration.	Number of fish passed annually	Yes	Not assigned		Yes *
Habitat Protection, Habitat Restoration, and Water Quality: Build awareness about environmental problems	none identified	Puget Sound Partnership Public Opinion Survey				
Habitat Protection, Habitat Restoration, and Water Quality: Effect behavior changes, implementation of BMPs	No overarching goal identified. Some programs identify specific goals	At this time lacking basin framework to evaluate the relationship between behavior changes and habitat and water quality trends.				

Sequence/Timing Question: *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?*

In this 3-year work plan, cross-H considerations are more explicitly identified, illustrating that resource managers in the different H sectors are aware of general H-integration issues. At this point we are not able to prioritize or sequence across the H's, nor evaluate resource allocation across the Hs. This type of undertaking might be a valuable analysis for the Snohomish Basin; however, with other work seriously underfunded, we are unlikely to advance this type of activity.

Habitat: A fundamental sequencing issue is that if habitat is lost over time, then restoration needs increase. Protection is prioritized over restoration, given restrictions in many projects that prevents full restoration in many situations, and lag times associated with realizing ecological function once a project has been implemented.

Habitat Protection: Despite the economic downturn of the last several years, we are beginning to see more development taking place. Some ecological stressors associated with the spread of impervious surfaces associated with development, such as altered hydrologic and sediment processes, will also be exacerbated by climate change. Simultaneously, limited natural resources (such as water and land) are placing different societal interests in direct competition.

Although the Snohomish River Basin Salmon Conservation Plan identified a general habitat strategy that prioritized protection actions over restoration efforts and identified general protection tools, this plan did not establish protection priorities or a protection strategy. This strategy is needed to analyze those areas at the highest risk of degradation, areas where degradation has the greatest impact, and the efficacy of using different protection tools to meet our goals. Even though this strategy is needed to ensure protection of our highest priority areas, on the ground protection efforts cannot be placed on hold until this analysis is completed. The Plan provides good general guidance for protection needs, and should inform these efforts in the interim.

Habitat Restoration: One consideration for sequencing is project priority. The Snohomish River Basin Salmon Conservation Plan lays out a robust framework that prioritizes restoration actions (Appendix B). This work plan further refines this prioritization scheme by adding implementation progress, sponsor capacity, and a rough sequencing element to more clearly categorize projects into *most pressing need, pressing need, need* (Appendix C). Through this process, Tier 1 projects with sponsor capacity, that address lagging benchmarks are identified as being our *most pressing needs* – the most critical projects to complete soon. These projects tend to be projects in the mainstem primary sub-basin strategy group that will restore off-channel or edge habitat, estuary projects to restore tidal marsh, and nearshore projects to protect or restore beach habitat. Project identified as being a *pressing need* include Tier 1 actions that address benchmarks that are currently on pace to meet 10-year benchmarks (e.g., mainstem primary riparian restoration) and Tier 2 and 3 actions that are not pace to meet 10-year benchmarks (e.g.,

mainstem secondary, rural, and urban riparian restoration). While advancing these projects are not as urgent as those categorized as *most pressing need*, it is important that we maintain our current pace for Tier 1 actions currently on pace, and accelerate our implementation rate for lower tier projects that are behind in implementation, as resources allow. The final category of projects, those identified as *need*, reflect projects that are part of the plan and are needed to reach recovery. It is important that we continue to advance these projects too, especially as resources allow.

Prioritization alone does not identify which projects should be implemented in what order. At this time, additional sequencing considerations are being addressed to varying degrees on the Subbasin Strategy Group scale. Estuary monitoring partners are working collaboratively to coordinate which projects will apply for what funding, and projects are coming on-line at different times. In the nearshore, the nearshore sediment assessment is guiding priorities and actions. For large, mainstem river projects, sequencing is presently driven by the capacity of the project sponsors able to implement projects of this scale. The project working group has voiced general support for coordinating and sequencing projects on a smaller scale, particularly to reduce in-basin competition for funds.

Harvest Management: The harvest management plan was developed based on the production potential of the habitat in the period 1985-2000. Therefore, if habitat stays the same or improves above this level, the harvest guidelines should be sufficiently conservative to achieve the goal of not impeding recovery. On the other hand, if habitat degradation continues, then the guidelines may not be conservative enough. We expect the beneficial effect of harvest management actions to be apparent within a short time period, while habitat actions will take longer to manifest themselves in improved population performance. However, harvest management actions cannot contribute effectively to recovery without concurrent improvement in habitat.

Hatchery Management: Since 2005, natural-origin Chinook returning to the Wallace River and Sunset Falls fish traps have been selected and incorporated into the Wallace River Hatchery broodstock according to the guidelines in the WDFW/Tulalip Hatchery MOU Agreement. Tulalip and WDFW are also incorporating studies to directly determine the degree of gene flow between the hatchery and natural populations into the long-term hatchery management plan. Studies of ecological interactions in the Snohomish estuary continue. A comprehensive report is expected within the next few years, after which we will evaluate implications for hatchery management. Passage of natural-origin Chinook over the Tokul Creek and Wallace River weirs continues, as does trucking of fish over Sunset Falls. Fishery management continues to target hatchery-origin Chinook through mark-selective recreational fisheries and time-area management methods in Tulalip Bay.

H-integration: Basic stock assessment activities are the key to evaluating the efficacy of the strategies in all of the H's. Spawning escapement programs were originally designed only for the purpose of evaluating harvest management, but are being refined to assess the spatial distribution of spawners in a manner that can be correlated with habitat type and condition. Similarly, juvenile outmigrant assessment

programs are used to predict subsequent adult returns to facilitate harvest management, but they also serve as a basis for measuring overall population productivity and particularly assessment of the time trends in the ability of the freshwater habitat to produce viable outmigrant smolts. The breakout of the escapement into natural- and hatchery-origin components provides one evaluation of the potential effect of hatchery fish on natural populations through interbreeding, but it also allows us to document time trends in natural population abundance, productivity, and spatial distribution relative to hatchery-origin fish. A remaining, missing piece in overall stock assessment is the need to document trends in life history diversity, which could be ascertained through otolith pattern analysis, scale pattern analysis, or a combination of these imaging methods. Overall, the stock assessment work is the bottom line needed to assess overall performance of the recovery plan.

Next Big Challenge Questions:

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?

This work plan contains no significant changes. Rather, it reflects continued refinement over last year's more substantial refinement. Basin staff have not addressed the implications of inadequate funding on prioritization, as raised in previous years. This issue is significant for Puget Sound in general, not just the Snohomish Basin. With Tulalip hiring the new capital program manager, we hope to have more refinements next year.

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

Salmon Populations

Currently escapement data provides some indication of population performance. Following the decline in harvest rates of the mid-1990s, natural spawning escapement increased (Fig. 2), although it has begun to show a strong odd-even year fluctuation and a decline since the peak year of 2004. A comparison of the distribution of fishing mortality and escapement under the 2007 and 2009 preseason fishing plans shows the expected gain from implementing the new Chinook annex in the Pacific Salmon treaty (Fig.3). However, escapement only provides us with one view of population performance. Work is underway to extend this analysis to brood year production for the Snohomish. A better understanding of juvenile survival will also be critical for understanding trends in overall population performance.

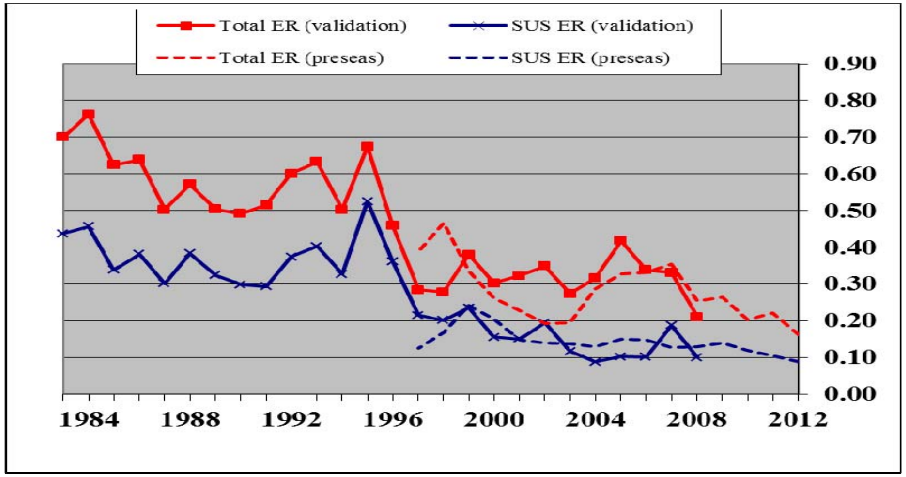


Figure 1. Trend in exploitation rates on Snohomish basin Chinook salmon as measured by the FRAM model, 1983-2012. Red line ("Total") is total exploitation rate, blue line ("SUS") is the portion of this south of the US/Canada border. Solid lines are post-season estimates; dash lines are preseason predictions.

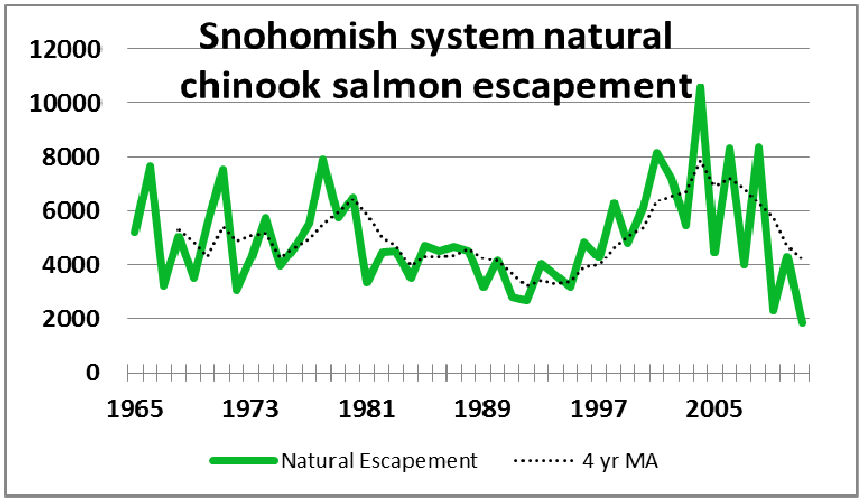


Figure 2. Trend in natural spawning escapement for Snohomish Chinook salmon 1965-2011.

Habitat Trends

At this time we are unable at this time to identify habitat trends; however, some habitat trend data from several reports highlights that the general trend in habitat is toward losses (NWIFC, 2011; NMFS, 2011; WDFW/Pierce, 2011). This information needs further analysis to look at potential shortcomings of the data to prevent misuse of the data. Despite this need for analysis, partners in the basin are aware of the need for greater emphasis on habitat protection and are engaged locally in refining our habitat protection strategy as well as at the region with PSP. Riparian analyses appear to indicate that we will need to increase the riparian restoration need in the basin to meet our 10-year end targets.

Given difficulties in habitat trend detection, annually is not the appropriate spatial scale to track habitat change. Thus, adaptive management decisions to direct restoration efforts will be imperfect and rely heavily on project implementation information. The Technical Committee is currently addressing habitat trend monitoring through the cumulative effectiveness section in the WRIA 7 monitoring plan (in progress).

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

Habitat Mitigation Projects

Some projects in the nearshore and estuary are linked to mitigation sites. The Forum has not yet determined how to count habitat gains on projects that involve mitigation and restoration. The Forum is seeking to consensus on how to measure the habitat gain on projects where a sponsor completes additional work to required mitigation. This discussion is part of the Forum work plan within the next couple of years.

Public Support for Salmon Restoration

- Outreach at the regional scale should focus on awareness and understanding of ecosystem and salmon issues, while providing direction, funding and guidance for change facilitators (e.g., watersheds), and change agents (e.g., fisheries enhancement groups) to focus on programs that change behaviors to either implement best management practices or habitat protection.
- Many current outreach efforts (especially targeted at adults) are driven by NPDES permit requirements and water quality concerns. While there are overlaps in messaging for water quality protection and salmon recovery, we need to evaluate what gaps have been created in the shift of the driver for public outreach from salmon to water quality.

- In addition to outreach for behavioral change, outreach needs to capture large scale project public outreach and what the basin is doing and why (i.e. try to get out of a reactive mode and into a proactive approach). The basin needs to be more strategic in public outreach.
- We need to focus effort on how to engage the volunteer community in a meaningful way. Existing programs assume that we can perpetuate the restoration economy based on volunteers forever.

Balancing Societal Priorities

In general, natural resources management is still undergoing some level of adjustment to changes in revenues and priorities that were initiated during the economic downturn. Given the current revenue realities, recent funds allocated to Puget Sound environmental issues, especially from the state and the federal government, speak to the realized importance of environmental needs.

Agricultural Preservation and Habitat Restoration

The Snohomish Basin, much like the region in general, has been working through issues associated with competing land uses. Within our Basin, both King County and Snohomish County are working through processes to more formally evaluate competing needs from farm preservation and fish recovery efforts. King County developed a public rule which prescribes how King County will ensure that restoration projects in the Agriculture Production District are compliant with county code. This rule is under revision under King County's comprehensive plan update. Current discussions outline that King County will need to advance a planning process to balance the agricultural, fish and flooding needs. This discussion will continue to happen through 2012.

In Snohomish County, both the Executive and the Council have established a stakeholder process – known as the Sustainable Lands Strategy – to address competing agricultural and fish restoration interests. Over the course of 2010 and finishing in the first quarter of 2011, the Sustainable Lands Strategy brought together the tribes, agricultural interests and environmental interests to develop a framework under which policy changes, approaches to agricultural and fish viability gains, and funding strategies. In 2012, this same group is initiating phase 3 of this work, which will seek to address code changes, membership of watershed groups and the County's Agriculture Advisory Board, and plans to improve agriculture and salmon viability in "reaches" within the Snohomish County portion of the Basin.

At this point, new policy direction or code interpretation has not directly affected project implementation. Individual project sponsors with a geographic scope larger than the Snohomish Basin have expressed that burdensome local requirements associated with agricultural concerns could be a deterrent for working in the basin. In this basin, the tension betwixt agriculture preservation and habitat restoration has delayed

some projects, such as Cherry Creek and Smith Island. However, we hope these new agreements will positively impact projects' ability to advance through construction to completion.

Large Wood Placement and Boater Safety

King County Department of Natural Resources and Parks (DNRP) is currently updating its procedures related to the management of naturally occurring large wood in county rivers. When wood accumulations that are potentially hazardous to recreational users, infrastructure or property are reported to the King County Sheriff or to DNRP, the two agencies work jointly to determine whether intervention is needed and to identify the best course of action. The updated procedures will increase transparency, provide for consistent documentation, and highlight pertinent county policies. The updated procedures will also address natural wood accumulations that occur as a result of a county project, such as a restoration project that involves levee removal and subsequently affects wood recruitment, mobility and accumulation. The updated procedures are still works in progress and are being reviewed by a stakeholder committee, to be followed by public review.

Further clarification on integration

Since 2007, the Puget Sound Partnership (PSP) and local partners (tribes, cities, counties, project sponsors, watershed groups and MRCs) have been working to ensure that the elements of the Action Agenda will work synergistically to recover Puget Sound by 2020. In 2007, development of the Action Agenda started around the seven legislated Action Areas (from the PSP's authorizing legislation, RCW 90.71). With the completion of the first Action Agenda in 2008, the PSP has been working with local partners on the appropriate way in which to involve local partners in implementation of the Action Agenda – in terms of scale and involvement.

In 2009, PSP initiated a second look at the Action Areas with the above implementation involvement thoughts in mind. Local partners and the PSP Leadership Council have agreed upon a Local Integrating Organization structure, which will start getting running in the latter half of 2012. One of the tasks of this LIO will be to update the local response to the Action Agenda, paying particular attention to prioritization of activities and strategies within the Snohomish/Stillaguamish LIO. These priorities may have implications for funding for actions within the LIO boundaries.

Challenges associated with the scale of restoration needed

- Grant period: 18 months is not sufficient for projects that are as large and complex as we need to implement. Grant periods need to be scaled to the size and complexity of the project. This statement applies to projects such as those from NFWF.

- As project sponsors begin to take on larger projects to advance priority actions identified in the Plan:
  - Technical support is increasingly available for earlier stages of project development, but support in understanding the analytical process needed to engage in process-level work, the skills needed
  - Project manager skill and abilities, specifically including construction management
  - Ability of non-profits to match grants
- We need assistance in dealing with institutional knowledge. In numerous areas around Puget Sound, staff are nearing retirement age, with no one to back them up. We are about to lose considerable knowledge and capability that will set us back a decade in our ecosystem recovery efforts. We must find ways to address this critical gap. One suggestion during the Action Agenda process was the funding of an innovative "Centers of Excellence" program, which would bring key, innovative knowledge to partners around the Sound.

Project related liability and risk

As identified at the 2012 Lead Entity Advisory Group retreat and within the Snoqualmie at Fall City Reach assessment (SRFB, PRISM #09-1281), the issues of liability and risk are increasing as the scope and scale of projects increases. Several types of liability exist for projects, including risk to health and safety, infrastructure, impacts on businesses, design and interpretation of design. Most of the risk is borne by the owner and the engineer designing the project. Two outcomes must derive from these discussions. First, the community needs to develop a standard of care that defines what levels of risk are acceptable for projects and what engineers must go through in designing projects. This standard of care will mean that project sponsors will need training and must accept these standards for the design and construction of projects.

Second, we must collectively define and plan for risks their potential related costs. Once a level of acceptable risk is determined, the restoration community must plan for how to defend projects that meet the standard of care, based on legal precedent. Collectively, we will also need a region or statewide "fund" set up to deal with the potential payouts associated with liability and risk. Projects would pay into an "insurance fund" that would pay for project related damages.

The fund would also need to cover project related risk that goes beyond the acceptable amount such as the installation of a protection facility that was deferred based on a low risk of potential engagement or Setback facilities are often required or incorporated into project designs even when the anticipated/potential facility engagement date exceeds the life expectancy of facility materials (wood). This presents a situation where the project may be unnecessarily burdened by costs for a facility that may never serve its purpose. For example, on the Fall City Reach project, preliminary analysis suggests that removal of a levee would result in a low risk (<20% chance of damage in 50years) to a county road, presently resulting in a plan and design that will cost an extra $1-2 million for risk mitigation.

Appendix A: Subbasin Strategy Group Definitions

The 62 sub-basins in the Snohomish River basin plus the nearshore were organized into 12 strategy groups based on three characteristics:

1. Basin location. The five major classifications are nearshore, estuary, mainstem rivers, lowland tributaries, and headwaters. This classification system is useful in developing a restoration strategy because sub-basins within these groups play similar roles in supporting salmon life histories and have similar geomorphic characteristics and land use issues.

2. Condition of watershed processes. Watershed processes drive habitat conditions and, in turn, population performance. The root causes of habitat loss occur on a sub-basin scale. Addressing the root causes of habitat degradation is critical for a successful recovery strategy. Watershed process conditions analyzed and modeled include the current conditions of hydrology, sediment, and riparian processes.

3. Salmonid use. Sub-basins were grouped based on their current Chinook and bull trout use and potential use. Salmonid populations are not distributed uniformly across the landscape. Identifying areas of high and potential use helps to direct scarce resources to where they will have the greatest effect. Sub-basins that have high and moderate coho use are identified in each strategy group. Many sub-basins include focus reaches where recommended actions may be targeted.

Sub-Basin Strategy Group	Salmonid Use/Watershed Condition
Nearshore	High use/Moderately degraded
Estuary	High use/Degraded
Mainstem Primary Restoration	High use / Moderately degraded or degraded
Mainstem Secondary Restoration	Moderate use / Moderately degraded
Rural Streams - Primary Restoration	Moderate use / Moderately degraded
Rural Streams - Secondary Restoration	Low use / Moderately degraded
Urban Stream Restoration	Low use / Degraded
Headwaters - Primary Protection	High use / Intact
Headwaters - Secondary Restoration	Moderate use / Moderately degraded
Headwaters - Secondary Protection	Low use / Intact
Headwaters - Protection Above Natural Barriers	Resident population only / Intact
Headwaters - Protection Above Falls and Dams	Resident population only / Moderately degraded

Appendix B: Plan Tiering Criteria for Habitat Capital Actions

Tiering criteria was established *Plan*. Each individual project was tiered into 1 of 4 levels according to the priority action outlined for the sub-basin strategy group where the project is located.

Sub-basin Strategy Group	Tier	Action
Nearshore	1	Preservation
Nearshore	1	Restore shoreline condition
Nearshore	1	Restore sediment processes
Nearshore	1	Riparian enhancement
Nearshore	2	Protect and/or restore water quality
Nearshore	2	Control invasives
Estuary	1	Preservation
Estuary	1	Reconnect off-channel habitats
Estuary	1	Improve fish passage and tidal exchange on tide-gated streams
Estuary	1	Restore shoreline conditions
Estuary	1	Riparian enhancement
Estuary	2	Addressing water quality impacts
Estuary	2	Enhancing in-stream structures
Mainstem Primary	1	Preservation along focus reaches
Mainstem Primary	1	Preservation to support hydrologic and sediment processes
Mainstem Primary	1	Removal of human-made in-stream barriers along or adjacent to priority reaches
Mainstem Primary	1	Reconnection of off-channel habitats
Mainstem Primary	1	Restoration of shoreline conditions
Mainstem Primary	1	Restoration of hydrologic and sediment processes (for peak flow and base flow)
Mainstem Primary	1	Riparian enhancement
Mainstem Primary	2	Addressing water quality impacts
Mainstem Primary	2	Enhancing instream structures
Mainstem Primary	other	Fish passage on Coho streams

Sub-basin Strategy Group	Tier	Action
Mainstem Secondary	1	Preservation to support hydrologic and sediment processes
Mainstem Secondary	1	Restoration of hydrologic and sediment processes (for peak flow and base flow)
Mainstem Secondary	2	Preservation along focus reaches
Mainstem Secondary	2	Removing human-made in-stream barriers along or adjacent to priority reaches
Mainstem Secondary	2	Restoring shoreline conditions
Mainstem Secondary	2	Enhancing riparian areas
Mainstem Secondary	3	Addressing water quality impacts
Mainstem Secondary	3	Enhancing in-stream structures
Rural Streams Primary	1	Preservation to support hydrologic and sediment processes
Rural Streams Primary	1	Restoration of hydrologic and sediment processes (for peak flow and base flow)
Rural Streams Primary	2	Preservation along focus reaches
Rural Streams Primary	2	Removing human-made in-stream barriers along or adjacent to priority reaches
Rural Streams Primary	2	Restoring shoreline conditions
Rural Streams Primary	2	Riparian enhancement
Rural Streams Primary	3	Addressing water quality impacts
Rural Streams Primary	3	Enhancing in-stream structures
Rural Streams Primary	other	Replacing culverts on small streams
Rural Streams Secondary	1	Preservation to support hydrologic and sediment processes
Rural Streams Secondary	1	Restoration of hydrologic and sediment processes (for peak flow and base flow)
Rural Streams Secondary	3	Preservation (along focus reaches)
Rural Streams Secondary	3	Removing human-made instream barriers along or adjacent to priority reaches
Rural Streams Secondary	3	Restoring shoreline conditions
Rural Streams Secondary	3	Riparian enhancement
Rural Streams Secondary	3	Addressing water quality impacts
Urban Streams	3	Preservation (along focus reaches)

Sub-basin Strategy Group	Tier	Action
Urban Streams	3	Removing human-made in-stream barriers along or adjacent to priority reaches
Urban Streams	3	Restore shoreline conditions
Urban Streams	3	Riparian enhancement
Urban Streams	3	Addressing water quality impacts
Urban Streams	4	Instream structural enhancement
Headwaters Primary Protection	1	Preserving habitat along focus reaches
Headwaters Primary Protection	1	Preserving habitat to support hydrologic and sediment processes
Headwaters Primary Protection	1	Restore shoreline conditions
Headwaters Primary Protection	2	Enhance marine-derived nutrients (North Fork Skykomish only)
Headwaters Secondary Restoration	1	Preserve hydrologic and sediment processes
Headwaters Secondary Restoration	1	Restore hydrologic and sediment processes (for peak flow and base flow).
Headwaters Secondary Restoration	2	Preservation (along focus reaches)
Headwaters Secondary Restoration	2	Remove human-made instream barriers along or adjacent to priority reaches
Headwaters Secondary Restoration	2	Reconnect off-channel habitats
Headwaters Secondary Restoration	2	Restore shoreline conditions
Headwaters Secondary Restoration	2	Enhance riparian habitat
Headwaters Secondary Restoration	3	Address water quality impacts
Headwaters Secondary Restoration	3	Enhance marine-derived nutrients
Headwaters Secondary Restoration	3	Enhance in-stream structure
Headwaters Secondary Restoration	other	replace culverts on small streams
Headwaters Secondary Protection	1	preserve hydrologic and sediment processes
Headwaters Secondary Protection	3	Preservation along focus reaches
Headwaters Secondary Protection	3	Remove human-made in-stream barriers along or adjacent to priority reaches
Headwaters Secondary Protection	3	Reconnect off-channel habitats
Headwaters Secondary Protection	3	Restore shoreline conditions
Headwaters Secondary Protection	3	Address water quality impacts

Sub-basin Strategy Group	Tier	Action
Headwaters Secondary Protection	other	replace culverts on small streams
Headwaters Protection Above Natural Barriers	1	protect watershed processes that support habitat on federal forest lands
Headwaters - Restoration Above Falls and Dams	1	Preservation to support hydrologic and sediment processes
Headwaters - Restoration Above Falls and Dams	1	Restore hydrologic and sediment processes (for peak flow and base flow).
Headwaters - Restoration Above Falls and Dams	3	Riparian enhancement
Headwaters - Restoration Above Falls and Dams	3	Protect water quality
Headwaters - Restoration Above Falls and Dams	4	Remove human-made in-stream barriers
Headwaters - Restoration Above Falls and Dams	4	Restore shoreline conditions
Headwaters - Restoration Above Falls and Dams	5	Provide in-stream structural enhancement

Appendix C: 3-Year Work Plan Sequencing Scheme for Habitat Capital Actions

As part of the 3-year work plan update, we applied a simple categorization scheme to identify the highest priority actions needed given priorities established by the *Pla*n (2005), current progress towards 10-year benchmarks, and the considering sequencing issues and sponsor capacity. The intent of this process is not to judge the merit of each project in the work plan but rather to provide general guidance about the types of restoration action most needed and reflect the ability to advance these projects in light of project readiness. The naming convention of our categorization scheme underscores that all of the proposed actions are needed to reach salmon recovery. However, the need for some projects types, particularly given implementation progress to date, is critical.

1. **Tier assigned by the *Plan***
    a. Tier 1: +85 points
    b. Tier 2: +75 points
    c. Tier 3: +65 points
    d. Tier 4: +55 points

2. **Sponsor capacity**
    a. Sponsor currently has capacity to advance project: 0 points
    b. Sponsor currently lacks capacity to advance project : -10 points

3. **Habitat action addresses lagging 10-year benchmark** (see table 2, p. 12, percent 10-year benchmark column)
    a. < 25%: +10 points
        - nearshore beach
        - mainstem primary off-channel
        - mainstem primary edge
        - mainstem secondary riparian
        - mainstem secondary off-channel
        - rural primary off-channel
        - rural secondary off-channel
        - protection evaluation

b. 26 – 50%: +5 points
   - estuary marsh
   - rural primary riparian
   - urban riparian

c. > 50%: 0 points
   - mainstem primary riparian
   - rural secondary riparian
   - urban off-channel

4. **Logical Sequencing Considerations**
   a. Logical sequencing issue: -10 points
      Examples:
      - downstream fish blockage
      - project does not address primary limiting factor
      - implementation of project may impede more substantial restoration in the future

   b. Project informed by larger scale or process assessment: +5 points

Points were summed for each project, and scores ranged from 55-100. Project scores were then binned as follows:

- 90 – 100 points: *Most pressing need*
- 70 – 89 points: *Pressing need*
- < 70 points: *Need*

Appendix D: Project and Program List Color Coding

	Progress made in 2011
	Project added in 2012
	Completed as scoped

MapID_2012	HWS ID	ProjName	Map_ID2011
1	07-HSR-019	South Fork Skykomish Acquisitions	1
2	07-MPR-072	Raging River Upper Preston Reach Acquisitions	2
3	07-RSR-049	Patterson Creek Protection on Stevlingson Property	3
4	07-MPR-312	Tolt River Habitat Acquisitions (City of Carnation)	4
5	07-RSR-050	Patterson Creek State DNR Land Acquisition	5
6	07-MPR-305	Snoqualmie Fall City Reach Reconnection	8
7	07-ER-035	Diking District 6 Intertidal Restoration Project	10
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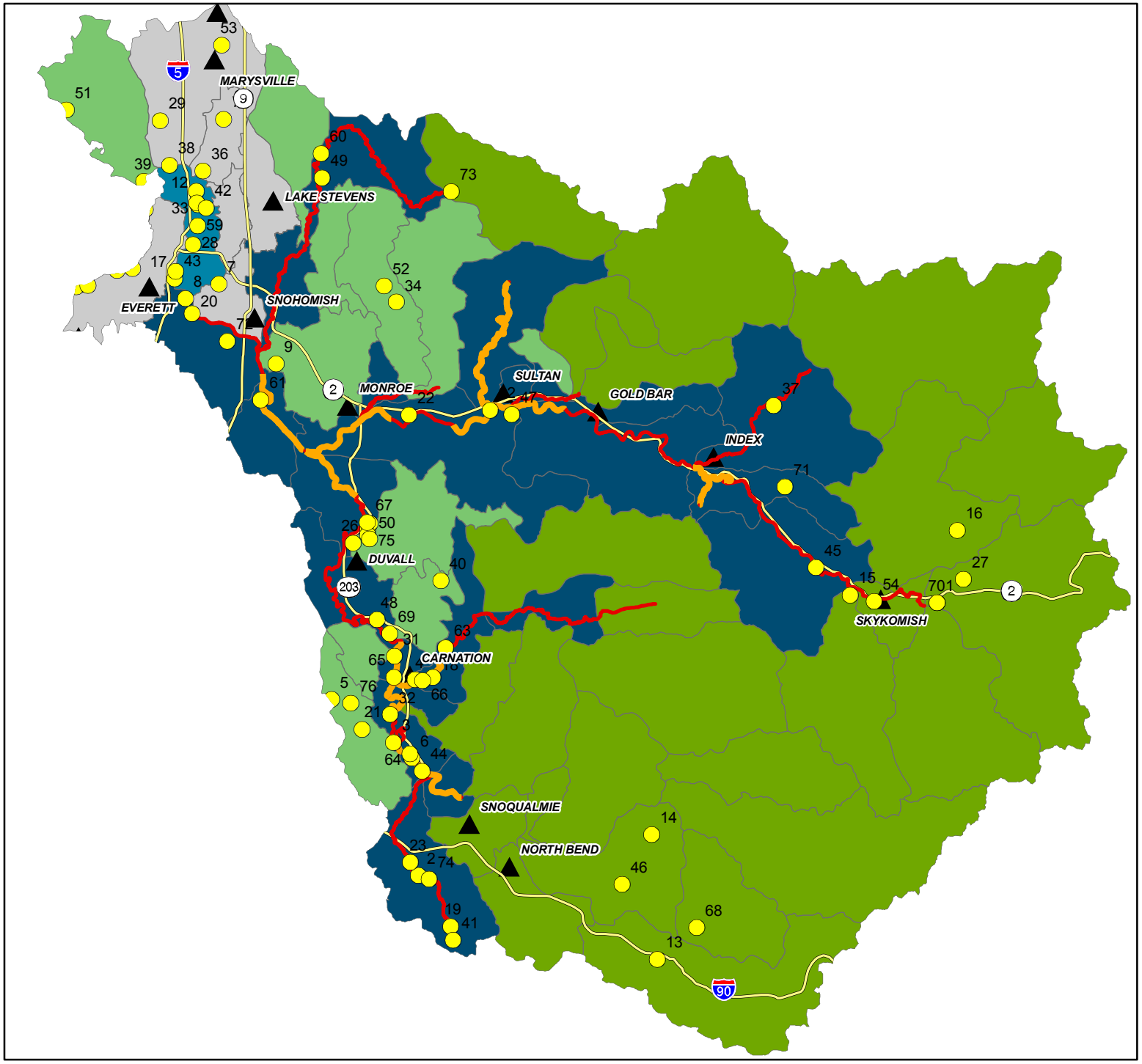

Snohomish Basin 3-Year Work Plan Project Map

Legend

- Project Locations
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- Focus Reaches
- Primary Focus Reaches

Sub-basin Strategy Group

- Estuary
- Headwaters
- Mainstem
- Rural
- Urban

Snohomish County

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2013 List

Project ID	Plan Category	Plan Catergory Level 2	Project Name	Project Description	Sequence score	Rank	Sequence Rank	Limiting Factors	Reference Document for limiting factor	Habitat Type	Activity Type and Project Performance	Project Performance (restore 30 acres of floodplain)	Primary Species Benefiting	Secondary Species Benefiting	Current Project Status	2013 Activity to be funded	2013 Estimated Budget	2014 Activity to be funded	2014 Estimated Budget	2015 Activity to be funded	2015 Estimated Budget	Likely End Date	Likely Sponsor	Total Cost of Project	Known Funding Secured	Local share or other funding	Source of funds (PSAR, SRFB, other)
07-NR-013	Restoration Projects	Nearshore restoration	Howarth Park Beach Restoration	Coming out of the Snohomish County led Neashore Sediment Assessment project, Howarth Park was one of four sites recommended for restoration. At this site, the 10% designs developed for the project call for removing the bulkhead near the bridge tower, then adding sediment to the beach area to increase available habitat for salmon and other nearesh0re species.	100	A	Most pressing need	Degraded Habitat-Estuarine and Nearshore Marine	Snohomish River Basin Salmon Conservation Plan, Snohomish Nearshored Sediment Assessment design report	Nearshore (Beaches)	Activity Type - Design	Complete final design	Chinook	Chum, Coho, Sockeye, Pink, Steelhead, Surf Smelt, Sand Lance	30% design complete	Design	$210,000	Construction	$350,000			8/31/2014	City of Everett	$560,000			
07-NR-025	Restoration Projects	Nearshore restoration	Nearshore Beach Nourishment Design and Permitting	Complete final design and permitting for three beach nourishment sites in the Mukilteo to Everett drift cell. Sites 2, 5, 9 were selected during the nearshore sediment assessment project that was completed in 2011.	100	A	Most pressing need	Degraded Habitat-Estuarine and Nearshore Marine		Nearshore (Beaches)	Design of 3 sediment nourishment projects (Sites 2, 5, 9 from the assessment)	Design	Chinook	Cutthroat , Chum, Coho, Pink, Steelhead, Surf Smelt, Sand Lance	Proposed	Design	$139,000					8/31/2014	Snohomish County, Snohomish County Marine Resources Committee (MRC)	$139,000			
07-NR-003	Restoration Projects	Nearshore restoration	Jetty Island South Extension Phase II	Use clean dredged material to extend Jetty Island 2,200 ft to the south along the west side of the existing rock jetty. This project is a continuation of the February 2007, 1000-foot extension of the island, constructed using approx 60,000 cy of sand dredged from the lower settling basin. The planned 2012 - 2013 action will extend the island an additional 2,200 feet to the south and will add material to increase the width and elevation of the 2007 extension. The project will be jointly funded by the Corps of Engineers and the Port of Everett. People for Puget Sound will do project monitoring in cooperation with the Port and Pentec Environmental.	95	A	Most pressing need	Degraded Habitat-Riparian Areas and LWD Recruitment, Non-Habitat Limiting Factors, Estuarine and Nearshore Habitat		Nearshore (Beaches)	Activity Type - Estuarine & Nearshore: Beach Nourishment (1 Acres), Snohomish Basin Nearshore: Beaches and Shoreline: Enhancement of nearshore armoring (LC) (2200 Feet)	1 acre beach creation 2,200 feet armoring enhancement	Chinook	Chum, Chinook, Coho, Bull Trout, Steelhead, Cutthroat, Pink, Surf Smelt, Sand Lance, Bald Eagle, Peregrine Falcon	Design, permitting complete	Construction	$700,000					3/1/2013	Port of Everett, US Army Corps of Engineers	$700,000	$700,000	$75,000	Port of Everett ($75k), US Army Corps of Engineers
07-NR-005	Restoration Projects	Nearshore restoration	Renourish Existing Jetty Island Berm	The Jetty Island berm, originally constructed in 1990 with 323,000 cy of clean river sand, requires periodic renourishment to maintain its integrity and to protect the productive depositional mudflat and fringing salt marsh in the lagoon formed by the berm. Renourishment most recently occurred in January / February 2007 and in February 2009. The next renourishment is planned for Winter 2012-13. Quantities of sediment placed for each renourishment is typically 20,000 to 40,000 cy.	90	A	Most pressing need	Degraded Habitat-Estuarine and Nearshore Marine		Estuary (River Delta), Nearshore (Beaches), Nearshore (Embayments)	Activity Type - Estuarine & Nearshore: Berm or Dike Removal or Modification (15 Acres)	15 acres beach nourishment	Chinook	Chum, Coho, Pink, Bull Trout, Steelhead, Surf Smelt, Sand Lance, Bald Eagle, Peregrine Falcon	Design Completed	Construction	$475,000					12/31/2020	Port of Everett	$475,000	$475,000 (according to HWS)	$75,000	Port of Everett ($75k), US Army Corps of Engineers?
07-NR-011	Restoration Projects	Nearshore restoration	North Mukilteo Nearshore Restoration and Creosote Removal	North Mukilteo Nearshore Restoration: The shoreline in the northeast portion of Mukilteo is 4,700+ lineal feet from Elliot Point to the POE Mount Baker Transfer Facility on Port Gardner Bay, within Whidbey Basin of Puget Sound. The whole extent of the shoreline has bulkheads or riprap with piers that consist of approximately 400,000 square feet of over-water coverage. Japanese Creek enters Puget Sound through two enclosed culverts 190 plus feet long. The abandoned 20 acre Tank Farm site is publically owned land with 3,250 lineal feet of nearshore. Comprehensive restoration of the shoreline must:1. Remove nearly 4,000 creosote piles and 222,750 square feet of an over-water pier; 2. Reconfigure the hydraulic modified 250 l.ft. of deepwater shoreline of the total 3,250 l.ft and remove cement fallen & migrated rip rap materials from the nearshore; soften bulkhead/rip rap profile w/woody debris/drift logs and cobble material; 3. Daylight 190 feet of Japanese Creek from the railroad tracks to the shoreline with early century historical artifact recovery; & 4. Adds a shoreline walkway.	90	A	Most pressing need	Degraded Habitat-Estuarine and Nearshore Marine, Estuarine and Nearshore Habitat		Nearshore (Beaches)	Activity Type - Estuarine & Nearshore: Overwater Structure Removal / Modification (5 Acres)		Chum, Chinook, Coho, Bull Trout, Cutthroat	Orca (Killer Whale), Surf Smelt, Sand Lance, Bald Eagle, Marbled Murrelet	Conceptual							12/31/2017	Washington State Ferries	$21,700,000			
07-NR-009	Restoration Projects	Nearshore restoration	Light House Park Phase 2 Beach Restoration	The proposed project is within Mukilteo Lighthouse Park and will provide an additional waterfront access, 340 lineal feet of riparian shoreline vegetation, accessible pathways, a picnic table, open lawn, low impact development (LID) storm drainage swales for water quality along the western edge of the Mukilteo Lighthouse on a site that is predominantly a parking lot but adjacent to unique and historic Mukilteo Lighthouse complex and the water, which draws over 1 million visitors each year.	85	B	Pressing need	Degraded Habitat-Estuarine and Nearshore Marine, Biological Processes, Estuarine and Nearshore Habitat		Riparian, Nearshore (Beaches)	Snohomish Basin Nearshore: Beaches and Shoreline: Enhancement of nearshore armoring (LC) (340 Feet)	340 ft enhancement of nearshore armoring	Chinook	Cutthroat , Chinook, Chum, Coho, Bull Trout, Bald Eagle, Marbled Murrelet	Design Completed, Permitting Completed							12/31/2010	Mukilteo City of	$33,600			
07-NR-010	Restoration Projects	Nearshore restoration	Japanese Gulch Fish Passage Improvements	The goal of the Japanese Gulch Creek Day Lighting project is to recreate a fish passable stream system that feeds into Possession Sound. To do this, the project has been broken into several phase: Phase 1:Replace the concrete drainage structure north of Mukilteo Lane (on BNSF land) with a fish passable steps or ladder. Phase 1 was completed in July of 201 Phase 2:Design and build up to three passable fish structures in the lower reaches of Japanese Gulch Stream between Mukilteo Lane and 4th Street. Phase 2 was completed in October of 2010 Phase 3:Relocate Japanese Gulch into its historic channel on the west side of the Boeing Rail Road Spur. This project also includes evaluating the possibility of opening the Category 2 wetland adjacent to Japanese Gulch Stream to tidal waters to create a saltwater estuary. Depending of the results, building improvements to create the estuary. Design of the stream relocation in underway. Construction is expected to occur in the summer of 2011. Phase 4:Design and build passable fish structures in the upper reaches of Japanese Gulch Stream between 5th Street and SR 526. Feasibility study completed in June of 2010 concluded that the costs associated with boring under 5th Street and the limited habitat south of 5th Street was not cost effective. As a result, this portion of the project was dropped. Phase 5:Daylight Japanese Gulch Creek across the Federal Tank Farm property south of the BNSF rail road	85	B	Pressing need	Degraded Habitat-Channel Structure and Complexity, Degraded Habitat-Stream Flow		Instream	Activity Type - Fish Passage: Fish ladder Installed / improved (3 Each)		Chum, Coho, Bull Trout, Rainbow, Cutthroat		Feasibility Pending, Feasibility Completed, Design Completed, Construction Completed							3/16/2015	Mukilteo City of	$2,500,000			
07-NR-012	Acquisition/Restoration (Combination)	Nearshore restoration	Tulalip Nearshore Acquisition and Restoration	Protect and restore critical areas along the Tulalip shoreline and nearshore.	85	B	Pressing need			Nearshore (Beaches), Nearshore (Rocky Coast), Nearshore (Embayments)			Chinook	Chum, Coho, Surf Smelt, Sand Lance, Bald Eagle	Conceptual							1/1/2014	Tulalip Tribes				
07-NR-014	Restoration Projects	Nearshore restoration	Priest Point Pocket Estuary Restoration	Reconnect tidal lagoon within private properties. Project will require considerable public outrach with the neighboring landowners. Project may require construction of a cross-dike.	85	B	Pressing need	Degraded Habitat-Estuarine and Nearshore Marine					Chinook									12/31/2015	Tulalip Tribes				
07-ER-035	Acquisition/Restoration (Combination)	Estuary restoration	Diking District 6 Inter-tidal Restoration Project	Construct setback dike and breach current dike to restore tidal influence to at least 230 acres of wetland, with additional non-tidal wetland enhancement behind the setback dike.	90	A	Most pressing need	Degraded Habitat-Estuarine and Nearshore Marine, Biological Processes, Estuarine and Nearshore Habitat		Estuary (River Delta)	Snohomish Basin Estuary: Tidal Marsh: Restoration of tidal marsh (LC) (230 Acres)	230 acres tidal marsh restored	Chinook	Cutthroat , Chum, Coho, Pink, Bull Trout, Steelhead	Feasibility Completed	Design	$2,500,000	Construct setback dike, fill ditches	$7,500,000	Breach dike	$2,500,000	12/31/2015	City of Everett	$12,500,000		City of Everett, Snohomish County	ACOE, National Coastal Wetlands
07-ER-053	Restoration Projects	Estuary restoration	Everett Riverfront North Wetland Complex and adjacent proposed Public Park	Restore up to 21.6 acres of tidal marsh habitat in the south wetland complexes, as part of the Everett Riverfront Development.	90	A	Most pressing need	Degraded Habitat-Estuarine and Nearshore Marine, Estuarine and Nearshore Habitat	Snohomish River Basin Salmon Conservation Plan	Estuary (River Delta)	Activity Type - Estuarine & Nearshore: Berm or Dike Removal or Modification (21.60 Acres)	21.6 acres tidal marsh restored	Chinook	Cutthroat , Coho, Bull Trout, Steelhead	Feasibility Completed, Design Completed, Land Acquisition Completed							12/31/2015	City of Everett	$2,004,048			
07-ER-013	Restoration Projects	Estuary restoration	Blue Heron Slough Habitat Conservation Bank	Reconnect and enhance 320 acres of off-channel habitat. Restore 13,500 ft of edge habitat through hydrologic and sediment process restoration and riparian enhancement. The project requires a short cross dike of 4,232 ft.	90	A	Most pressing need	Degraded Habitat-Floodplain Connectivity and Function, Degraded Habitat-Channel Structure and Complexity, Degraded Habitat-Riparian Areas and LWD Recruitment, Non-Habitat Limiting Factors, Biological		Estuary (River Delta)	Activity Type - Estuarine & Nearshore: Berm or Dike Removal or Modification (320 Acres), Activity Type - Estuarine & Nearshore: Channel Modification/Creation (13500 Linear Feet), Snohomish Basin Estuary: Tidal Marsh: Restoration of tidal marsh (LC) (320 acres) (note: many more activity types selected in HWS - include all?)	13,500 feet channel modified 320 acres tidal marsh restored	Chinook	Cutthroat , Chum, Coho, Pink, Bull Trout, Steelhead, Surf Smelt, Bald Eagle, Peregrine Falcon	Design Completed, Permitting pending	Construction	$2,700,000					12/31/2013	Port of Everett, Wildlands, Inc.	$2,700,000	$2,700,000? (according to 2012 3YWP) HWS says 0 funded		Mitigation Funds, partial funding from Port of Everett
07-ER-037	Restoration Projects	Estuary restoration	Smith Island Estuary Restoration - Construction	Restore over 300 acres of tidal marsh through setback dike construction, breaches of existing dike , filling / blocking of existing drainage ditch network, enhancement / extension of existing tidal channels, large woody debris and log-jam complexes, edge habitat complexity features, and native revegetation.	90	A	Most pressing need	Degraded Habitat-Estuarine and Nearshore Marine, Biological Processes, Estuarine and Nearshore Habitat	Snohomish River Basin Salmon Conservation Plan, Snohomish Estuary Wetland Enhancement Plan, Restoration Opportunities in the Lower	Estuary (River Delta)	Snohomish Basin Estuary: Tidal Marsh: Restoration of tidal marsh (LC) (400 Acres)	400 acres tidal marsh restored	Chinook	Cutthroat , Chum , Coho , Pink , Bull Trout , Steelhead	Feasibility Completed	Construction	$ 13,500,000	Monitoring	$ 500,000	Monitoring		1/1/2014	Snohomish County of	$15,000,000	$10,000,000	$500,000	PSAR, SRFB, ESRP, mitigation, NOAA Restoration Center
07-ER-040	Restoration Projects	Estuary restoration	Steamboat Slough Tidal Marsh Enhancement	This project will evaluate opportunities to improve mainstem habitat and habitat connectivity through an analysis of physical processes at work, particularly at channel junctions. Opportunities will be identified and ranked, and three (at a minimum) will be designed to a level to support permitting, setting the stage for implementation. Hydrodynamic modeling will be conducted to inform project alternatives analysis and design.	90	A	Most pressing need	Degraded Habitat-Estuarine and Nearshore Marine, Biological Processes, Estuarine and Nearshore Habitat	Snohomish River Basin Salmon Conservation Plan	Estuary (River Delta)	Activity Type - Estuarine & Nearshore: Berm or Dike Removal or Modification (100 Acres)	100 acres tidal marsh enhanced	Chinook	Cutthroat , Chum, Coho, Pink, Bull Trout, Steelhead	Feasibility Completed			Design	$150,000	Construction	$285,000	12/31/2012	Tulalip Tribes, Snohomish County	$435,000	$0		
07-ER-042	Restoration Projects	Estuary restoration	Assess and improve mainstem channel habitat connectivity	Assess and improve connectivity to tidal marsh habitats located along mainstem and distributary sloughs.	90	A	Most pressing need	Degraded Habitat-Floodplain Connectivity and Function, Degraded Habitat-Channel Structure and Complexity, Degraded Habitat-Riparian Areas and LWD Recruitment, Degraded Habitat-Water Quality, Non-Habitat	Snohomish River Basin Salmon Conservation Plan	Instream		Assessment completed	Chinook	Cutthroat , Chum, Coho, Pink, Bull Trout, Steelhead	Monitoring, Construction Completed					Feasibility	$250,000	12/31/2012	Snohomish County of	$150,000			
07-ER-102	Restoration Projects	Estuary restoration	Smith Island Estuary Restoration - Permitting and Design	Complete design and permitting for the 400 acre tidal marsh restoration site in coordination with City of Everett, DDS and other partners.	90	A	Most pressing need	Degraded Habitat-Floodplain Connectivity and Function, Degraded Habitat-Channel Structure and Complexity, Degraded Habitat-Riparian Areas and LWD Recruitment, Degraded Habitat-Water Quality, Non-Habitat Limiting Factors, Degraded Habitat-Stream Flow, Degraded Habitat-		Estuary (River Delta)		Final design completed Permits in-hand	Chinook	Cutthroat , Chum, Coho, Pink, Bull Trout, Steelhead	Feasibility Completed	Design						5/31/2011	Snohomish County of	$759,800	$759,800		SRFB, ESRP, NCWG
07-ER-036	Restoration Projects	Estuary restoration	Qwuloolt Estuary Restoration Project	The Qwuloolt Estuary Restoration Project represents a broad-based interagency and community effort to restore 400 acres of critical estuary and stream habitats within the Snohomish River estuary and improve salmon access to 16 miles of stream channel.	90	A	Most pressing need	Estuarine and Nearshore Habitat		Estuary (River Delta)	Snohomish Basin Estuary: Tidal Marsh: Restoration of tidal marsh (LC) (350 Acres)	400 acres tidal marsh restored	Chinook	Cutthroat , Chum, Coho, Sockeye, Pink, Bull Trout, Steelhead	Feasibility Completed, Design Completed							12/31/2012	Tulalip Tribes	$7,073,941			
07-ER-039	Restoration Projects	Estuary restoration	Quilceda Estuary Restoration	Restoration of historic estuary to approximately 5-10 acres of tidal marsh along Quilceda Creek, Snohomish River Delta Estuary.	90	A	Most pressing need	Estuarine and Nearshore Habitat		Estuary (River Delta)	Activity Type - Estuarine & Nearshore: Berm or Dike Removal or Modification (10 Acres)	10 acres tidal marsh	Chinook	Cutthroat , Chum, Coho, Pink, Bull Trout, Steelhead, Bald Eagle, Marbled Murrelet, Peregrine Falcon	Feasibility Pending, Conceptual							12/31/2015	Tulalip Tribes	$250,000			
07-ER-003	Restoration Projects	Estuary restoration	Smith Island/Union Slough Estuarine Habitat Restoration	The construction of the setback dike was completed in 2004 and the three 180 ft breach openings of the existing levee were completed in Fall 2007. Monitoring for the City's mitigation site identified a number of issues with the drainage of the site between tide cycles and the bridges that were constructed at the dike breach openings. In 2010 the project team began the process of design and permitting to remove the bridges and relocate the pedestrian trail. Some corrective work was completed in 2011. The Project will be completed in 2012, when the Corps contractor will be removing the southern two bridges and deepening the	75	B	Pressing need	Degraded Habitat-Estuarine and Nearshore Marine, Estuarine and Nearshore Habitat	Snohomish River Basin Salmon Conservation Plan	Estuary (River Delta)	Activity Type - Estuarine & Nearshore: Berm or Dike Removal or Modification (93 Acres)	3 bridges removed 1 improved drainage 1 relocated pedestrian access	Chinook	Cutthroat, Coho, Pink, Bull trout, Steelhead	Design Completed, Monitoring	Design, construction	$1,500,000					12/31/2011	City of Everett	$1,500,000			
07-ER-038	Restoration Projects	Estuary restoration	Bigelow Creek Rechannelization and Enhancement and the South Wetland Complex	Restore over 800 feet of Bigelow Creek into a more natural meandering channel, with 6.9 acres of floodplain/wetland area. See also Project Id 07-ER-053 for restoring tidal connection at the Riverfront south wetland complexes.	75	B	Pressing need	Degraded Habitat-Floodplain Connectivity and Function, Degraded Habitat-Channel Structure and Complexity, Degraded Habitat-Riparian Areas and LWD Recruitment, Degraded Habitat-Water Quality, Degraded Habitat-Estuarine and Nearshore Marine	Snohomish River Basin Salmon Conservation Plan	Estuary (River Delta)	Activity Type - Channel floodplain: Hydrological Manipulation (6.9 Acres), Activity Type - Channel modification (800 feet), Activity Type - Culvert removal (2 each)	6.9 acres 800 feet 2 culverts	Chinook	Chum, Coho, Pink, Bull Trout, Steelhead	Feasibility Pending, Design Completed, Land Acquisition Completed	Construction	$435,000	Monitoring/maintenance				12/31/2012	City of Everett, Tulalip Tribes	$435,000	$435,000	City of Everett	Pacific Salmon Commission

2013 List

Project ID	Plan Category	Plan Catergory Level 2	Project Name	Project Description	Sequence score	Rank	Sequence Rank	Limiting Factors	Reference Document for limiting factor	Habitat Type	Activity Type and Project Performance	Project Performance (restore 30 acres of floodplain)	Primary Species Benefiting	Secondary Species Benefiting	Current Project Status	2013 Activity to be funded	2013 Estimated Budget	2014 Activity to be funded	2014 Estimated Budget	2015 Activity to be funded	2015 Estimated Budget	Likely End Date	Likely Sponsor	Total Cost of Project	Known Funding Secured	Local share or other funding	Source of funds (PSAR, SRFB, other)
07-MPR-305	Acquisition/Restoration (Combination)	Mainstem-primary restoration	Snoqualmie Fall City Reach Reconnection	5280 ft. edge, 5 ac. Off-channel, 12 ac. Riparian	100	A	Most pressing need	Degraded Habitat-Floodplain Connectivity and Function, Degraded Habitat-Riparian Areas and LWD Recruitment, Biological Processes		Rivers/Streams/Shoreline	Activity Type - Estuarine & Nearshore: Channel Modification/Creation (5280 Linear Feet), Activity Type - Estuarine & Nearshore: Hydrological Manipulation (5 Acres), Activity Type - Riparian Habitat: Planting (12 Acres), Snohomish River Basin Mainstem: Restored Edge: Removal of armoring/levee within 5 meters of the ordinary high water mark (LC) (5280 Feet), Snohomish River Basin Mainstem: Restored Off-channel Habitat: Winter/Spring off-channel habitat restoration (LC) (5 Acres), Snohomish River Basin Mainstem: Restored Riparian Habitat: Riparian planting (LC) (12 Acres)		Chinook	Cutthroat , Coho, Steelhead	Feasibility Pending						12/31/2012	King County DNRP	$4,000,000			
07-MPR-321	Restoration Projects	Mainstem-primary restoration	McElhoe-Person Levee Setback	Levee setback to restore 2500 ft. of edge habitat, 2.5 acers off-channel habitat, and 2 acres riparian vegetation.	100	A	Most pressing need	Degraded Habitat-Floodplain Connectivity and Function, Degraded Habitat-Riparian Areas and LWD Recruitment, Biological Processes		Rivers/Streams/Shoreline	Activity Type - Estuarine & Nearshore: Channel Modification/Creation (2500 Linear Feet), Activity Type - Estuarine & Nearshore: Hydrological Manipulation (2.50 Acres), Activity Type - Riparian Habitat: Planting (2 Acres)	2,500 feet edge 2.5 acres off-channel 2 acres riparian	Chinook	Cutthroat , Coho, Steelhead	Feasibility Pending						12/31/2012	King County DNRP	$918,000			
#New_ID	Restoration Projects	Mainstem-primary restoration	Pilchuck River Outreach Restoration Campaign	A series of high priority on-the-ground restoration projects will be completed in the Middle Pilchuck River watershed in partnership with private landowners. This work will be intiated through targeted outreach campaign to riverside landowners emphasizing the importance of the three priorities 1. SLOW the water down, 2. SPREAD the water out, and 3. SOAK the water up. These target messages were developed to address the major habitat limiting impairments of the watershed as identified in Snohomish County's Middle Pilchuck River Assessment. Resultant projects will include riparian planting, LWD placement for improved edge habitat, and re-connection/restoration of site channels.	100	A	Most pressing need	Degraded Habitat-Floodplain Connectivity and Function, Degraded Habitat-Channel Structure and Complexity, Degraded Habitat-Riparian Areas and LWD Recruitment, Degraded Habitat-Stream Flow		Riparian, Instream, Rivers/Streams/Shoreline	Snohomish River Basin Mainstem: Large Woody Debris (new log jams): Placement of new log jams (new log jams) (LC) (1 Each), Snohomish River Basin Mainstem: Restored Off-channel Habitat: Summer off-channel habitat restoration (LC) (1 Acres), Snohomish River Basin Mainstem: Restored Riparian Habitat: Riparian planting (LC) (5 Acres)	1 log jam installed 1 acre summer off-channel restored 5 acres riparian planted	Chinook	Coho, Bull Trout, Steelhead, Cutthroat, Pink	Proposed	Feasibility, Design, and Construction	$50,000	Design and Construction	$100,000	Construction	$50,000	12/31/2015	Trout Unlimited	$200,000			
07-MPR-030	Restoration Projects	Mainstem-primary restoration	Island formation at Thomas' Eddy	Hydraulically enhance existing breach in the Thomas' Eddy dike to connect existing floodplain channel and create forested island along the mainstem river	100	A	Most pressing need	Degraded Habitat - Channel Structure and Complexity, Degraded Habitat - Floodplain Connectivity and Function, Degraded Habitat - Riparian Areas and LWD Recruitment	Snohomish River Basin Salmon Conservation Plan, Snohomish Confluence Reach Restoration Assessment	Instream	50 feet of levee removal/3,000 cu yds material removal shape existing banks install ~12 flood fences Restore 2,000 feet/1.5 acres of summer flow off-channel Restore 5 acres of riparian habitat install 100 large wood complexes	50 feet levee removal 2,000 feet/1.5 acres summer off-channel 5 acres riparian 100 large wood complexes	Chinook	Chum, Bull trout, Steelhead, Cutthroat, Coho	Proposed	Design and permit	$120,000	Construction	$380,000				Snohomish County	$500,000			
07-MPR-176	Restoration Projects	Mainstem-primary restoration	Snohomish Estuary Edge Enhancement Phase II	Increase edge complexity and roughness for 2 miles of channel.	95	A	Most pressing need	Degraded Habitat-Channel Structure and Complexity, Degraded Habitat-Estuarine and Nearshore Marine, Biological Processes, Estuarine and Nearshore Habitat	Snohomish River Basin Salmon Conservation Plan	Riparian	Activity Type - Estuarine & Nearshore: Berm or Dike Removal or Modification (1 Acres)	1 acre tidal marsh restored 20 log jams installed	Chinook	Cutthroat , Chum, Coho, Pink, Bull Trout, Steelhead	Feasibility Pending			Feasibility	$100,000	Design and permitting	$80,000	12/31/2012	Snohomish County of	$480,000	$0		
07-MPR-214	Restoration Projects	Mainstem-primary restoration	Upper Tychman Slough Restoration	Restore aquatic and riparian habitat along Tychman Slough, a side-channel slough of the Skykomish River near Sultan. This project will deliver the following outcomes: floodplain roughness features (flood fences); instream large wood structures along the upper channel to provide cover in existing pools; weed control on 6 acres; riparian planting on 6 acres; and 2,000 feet of livestock exclusion fencing.	95	A	Most pressing need	Degraded Habitat-Channel Structure and Complexity, Degraded Habitat-Riparian Areas and LWD Recruitment, Degraded Habitat-Water Quality		Riparian, Rivers/Streams/Shoreline	Activity Type - Riparian Habitat: Plant removal / control (6 Acres), Activity Type - Riparian Habitat: Planting (4 Acres), Activity Type - Instream Habitat: Number of LWD structures placed in channel (80 Each); Activity Type - Upland Habitat: Agriculture fencing (1,000 Feet)	6 acres invasives controlled 6 acres riparian planted 80 logs and root wads installed 5 flood fences installed 1,000 feet agriculture fencing	Chinook	Cutthroat , Chum, Coho, Pink, Steelhead	Design Completed	Planting, weed control	$170,000	Planting, fencing	$130,000		$410,000	12/31/2014	Sound Salmon Solutions and Snohomish Conservation District	$710,000			SRFB (#10-1186), Natural Resource Damage Assessment and Restoration , DOE Centennial and 319 Clean Water Fund
07-MPR-326	Restoration Projects	Mainstem-primary restoration	CC Phase II Cherry Creek Floodplain Restoration	Consolidate three Cherry Creek floodplain ditches into a single naturalized stream channel. This project will improve instream and riparian habitat diversity and complexity for nearly one mile of channel within lower Cherry Creek and its floodplain and will complement Cherry Valley acquisition / restoration efforts being undertaken by WDFW and DD#7, including levee / pump removal.	95	A	Most pressing need	Degraded Habitat-Floodplain Connectivity and Function, Degraded Habitat-Channel Structure and Complexity, Degraded Habitat-Riparian Areas and LWD Recruitment, Degraded Habitat-Water Quality, Non-Habitat Limiting Factors, Degraded Habitat-Fish Passage		Riparian, Instream	Snohomish River Basin Mainstem: Restored Off-channel Habitat: Summer off-channel habitat restoration (LC) (30 Acres)	30 acres summer off-channel habitat restored	Chinook	Cutthroat , Chum , Coho , Pink , Bull Trout , Steelhead	Feasibility Completed	None	$0	None	$0	None	$0	12/31/2013	Wild Fish Conservancy	$535,000	$535,000		PSAR (#07-1701) , NFWF, King Conservation District, King County, Ducks Unlimited
07-MPR-119	Restoration Projects	Mainstem-primary restoration	Raging River Kerriston Reach Restoration	Placing large woody debris in the channel and floodplain as well as 15 acres of riparian enhancement.	90	A	Most pressing need	Degraded Habitat-Riparian Areas and LWD Recruitment		Riparian	Activity Type - Riparian Habitat: Planting (15 Acres), Snohomish River Basin Mainstem: Restored Riparian Habitat: Riparian planting (LC) (15 Acres)	15 acres riparian planted	Steelhead	Coho	Feasibility Pending							12/31/2011	King County DNRP	$200,000			
07-MPR-137	Restoration Projects	Mainstem-primary restoration	Shinglebolt Slough	Restore degraded side-channel rearing length (approximately 4000 lf) and capacity (1.5-2.0 acres) within the Sultan-Skykomish rivers confluence area at Shinglebolt Slough. Enlarge inlet opening and channel area in Shinglebolt Slough by excavation. Construct flood fencing to enhance upstream inlet opening and in-channel habitat conditions. Protect and improve left bank edge habitat in slough with riparian planting and woody debris bank treatments. Monitor before and after conditions to document project performance and habitat benefits, particularlly flow duration for outmigration rearing during Feb-June. Conduct limited monitoring to evaluate project outcomes.	90	A	Most pressing need	Degraded Habitat-Channel Structure and Complexity, Degraded Habitat-Riparian Areas and LWD Recruitment	Snohomish River Basin Salmon Conservation Plan	Riparian, Instream	Design	Design	Chinook	Chum, Coho, Pink, Bull Trout, Steelhead	Proposed	Design and permitting (2012)	$50,000	Construction (2013)	$390,000			12/31/2014	Snohomish County of	$440,000	$50,000	$390,000	FERC Aquatic Account
07-MPR-366	Restoration Projects	Mainstem-primary restoration	South Fork Skykomish Knotweed Control and Riparian Restoration	Treat knotweed infested sites and replant appropriate areas along approxi. Treatment will occur along the river and major tributaries connected to the South Fork Skykomish River. The project will include 3.5 river miles of initial treatment and up to 14 river miles of maintenance retreatment as well as riparian plantings along 3,000 linear feet per year.	85	B	Pressing need	Degraded Habitat-Riparian Areas and LWD Recruitment		Riparian			Chinook	Chum, Coho, Bull trout, Steelhead, Cutthroat, Pink	Feasibility Pending							12/31/2013	King County DNR & Parks	$278,500			
07-MPR-397	Acquisition Projects	Mainstem-primary restoration	Tolt River Conservation	Purchase high quality salmon habitat along the Tolt River between river mile 3 - 5.	85	B	Pressing need	Degraded Habitat-Floodplain Connectivity and Function, Degraded Habitat-Riparian Areas and LWD Recruitment, Biological Processes			Acquisition	5 acres	Chinook	Chum, Coho, Bull trout, Steelhead, Cutthroat, Pink	Feasibility Pending	Acquisition	$230,000					12/30/2016	King County DNR & Parks	$230,000			
07-MPR-025	Acquisition Projects	Mainstem-primary restoration	Lower Snoqualmie River Protection	Protect High Quality Habitat along the Lower Snoqualmie River.	85	B	Pressing need	Degraded Habitat-Floodplain Connectivity and Function, Degraded Habitat-Riparian Areas and LWD Recruitment, Biological Processes			Acquisition	10 acres	Chinook	Chum, Coho, Bull trout, Steelhead, Cutthroat, Pink	Feasibility Pending					Acquisition	$500,000	12/29/2017	King County DNR & Parks	$500,000			
07-MPR-072	Acquisition Projects	Mainstem-primary restoration	Raging River Upper Preston Reach Acquisitions	Work with willing landowners to protect 24 acres of stream corridors	85	B	Pressing need	Degraded Habitat-Floodplain Connectivity and Function, Degraded Habitat-Riparian Areas and LWD Recruitment, Biological Processes		Rivers/Streams/Shoreline	Snohomish River Basin Mainstem: Restored Edge: Acquisition in the Mainstem Sub-basin Strategy Groups (LC) (24 Acres)	24 acres acquired	Chinook	Cutthroat , Coho, Steelhead	Conceptual							12/31/2011	King County DNRP	$500,000			
07-MPR-108	Restoration Projects	Mainstem-primary restoration	Tolt River Focus Area 5 Protection	Preservation (proximate to aquatic habitat): 30 acres; work with willing landowners to protect the stream corridor	85	B	Pressing need	Degraded Habitat-Floodplain Connectivity and Function, Degraded Habitat-Riparian Areas and LWD Recruitment, Biological Processes		Rivers/Streams/Shoreline	Activity Type - Acquisition/Easements/Leases : Wetland areas protected (30 Acres)	30 acres acquired	Chinook	Cutthroat , Coho, Steelhead	Feasibility Pending							12/31/2015	King County DNRP	$500,000			
07-MPR-322	Restoration Projects	Mainstem-primary restoration	Snoqualmie Riparian Restoration	Mainstem Primary - Snoqualmie Riparian Restoration on Agriculture Lands to restore 10 acres riparian habitat.	85	B	Pressing need	Degraded Habitat-Riparian Areas and LWD Recruitment		Riparian	Activity Type - Riparian Habitat: Planting (10 Acres), Snohomish River Basin Mainstem: Restored Riparian Habitat: Riparian planting (LC) (10 Acres)		Chinook	Cutthroat , Coho, Steelhead	Design Completed							12/31/2012	King County DNRP	$100,000			
07-MPR-196	Restoration Projects	Mainstem-primary restoration	Tolt Footbridge Restoration	Mainstem primary - Tolt Footbridge Floodplain restoration design	85	B	Pressing need								Feasibility Pending							12/31/2007	King County of	$650,000			
07-MPR-216	Restoration Projects	Mainstem-primary restoration	Raging River Knotweed Control and Revegetation	Treat approx. 30 acres knotweed infested sites and replant appropriate areas.	85	B	Pressing need	Degraded Habitat-Riparian Areas and LWD Recruitment		Riparian	Activity Type - Riparian Habitat: Plant removal/ control (30 Acres)		Cutthroat	Cutthroat , Coho, Steelhead	Feasibility Pending							12/31/2012	Mountains to Sound Greenway Trust	$100,000			
07-MPR-364	Restoration Projects	Mainstem-primary restoration	Maloney Creek Restoration I	Maloney Creek Restoration will involve three parts: (1) wetland creation; (2) construction of sediment detention ponds; (3) instream restoration.	85	B	Pressing need	Degraded Habitat-Floodplain Connectivity and Function, Degraded Habitat-Channel Structure and Complexity, Degraded Habitat-Riparian Areas and LWD Recruitment, Degraded Habitat-Stream Flow, Degraded Habitat-Stream Substrate		Instream, Wetland	Activity Type - Instream Habitat: Channel structure - Wood structure / log jam (2000 Feet), Activity Type - Wetlands: Upland wetland creation (1 Acres)	2000 ft wood structure 1 acre upland wetland creation	Steelhead	Coho, Rainbow, Cutthroat	Feasibility Pending							9/30/2013	Mt. Baker-Snoqualmie National Forest, Skykomish, Town of	$500,000			
07-MPR-312	Acquisition Projects	Mainstem-primary restoration	Tolt River Habitat Acquisitions (City of Carnation)	Acquire and protect from future development riparian areas on the Lower Tolt River mainstem containing significant in-stream habitat value for Chinook salmon.	85	B	Pressing need	Degraded Habitat-Floodplain Connectivity and Function, Degraded Habitat-Channel Structure and Complexity, Degraded Habitat-Riparian Areas and LWD Recruitment, Biological Processes		Upland, Riparian, Wetland, Rivers/Streams/Shoreline	Snohomish River Basin Mainstem: Restored Edge: Acquisition in the Mainstem Sub-basin Strategy Groups (LC) (5 Acres)	5 acres acquired	Chinook	Coho, Steelhead	Feasibility Completed							12/31/2012	Seattle City Light	$400,000	$423,172 (According to note in HWS)		Seattle City Light, NFWF
07-MPR-365	Restoration Projects	Mainstem-primary restoration	Fall City Park Riparian Restoraiton Phase 2	Control invasive plants and restore 9 acres of riparian area at King County's Fall City Park along the Snoqualmie River. Phase 1 was completed in 2010 and phase 2 will extend downstream.	85	B	Pressing need	Degraded Habitat-Riparian Areas and LWD Recruitment		Riparian			Chinook	Cutthroat , Chum, Coho, Steelhead	Design Completed							12/31/2012	Snoqualmie Tribe	$280,000			
07-MPR-005	Restoration Projects	Mainstem-primary restoration	Lower Tolt Restoration Project - Camp River Ranch	Work with the owner of Camp River Ranch to improve their river-front property for salmon habitat. Invasive weeds will be controlled along approximately 5,000 linear feet of the left bank of the lower Tolt River. Weed control will occur on up to 9 acres followed by riparian planting. The planting will consist of establishing up to 100-foot wide riparian buffers where vegetation is sparse and establishing an understory conifer forest in areas where primarily deciduous trees exist. The proposed project will incorporate community outreach, educational opportunities, and the establishment of a native plant nursery on-site to grow native plants that will be used in the restoration planting areas.	85	B	Pressing need	Degraded Habitat-Riparian Areas and LWD Recruitment		Riparian	Activity Type - Riparian Habitat: Plant removal / control (9 Acres), Activity Type - Riparian Habitat: Planting (9 Acres)	9 acres invasives controlled 9 acres riparian planted	Chinook	Cutthroat , Chum, Coho, Pink, Bull Trout, Steelhead	Feasibility Completed	Riparian planting	$20,000	Riparian planting	$15,000	Monitoring and final reporting	$2,000	4/30/2014	Sound Salmon Solutions	$50,000	$50,000		King Conservation District, Recreation and Conservation Office (ALEA)
07-MPR-371	Restoration Projects	Mainstem-primary restoration	Snoqualmie Mainstem and Cherry Creek	Restore ecological functions to two miles of privately owned Snoqualmie River bank plus the lower 1/3-mile of Cherry Creek, which presently flows in a trench. The first phase of restoration activity on these sites includes: (1) a feasibility study for restoration of the trenched reach of Cherry Creek; (2) a reach analysis and feasibility study for restoration of the river mainstem; (3) revegetation of one mile of the steep 15-foot high mainstem river bank; and (4) completing the ongoing project of planting one row of trees on 1.5-miles of river banktop pasture area.	85	B	Pressing need	Degraded Habitat-Channel Structure and Complexity		Riparian, Instream, Rivers/Streams/Shoreline	Activity Type - Instream Habitat: Channel reconfiguration and connectivity (1,760 Feet), Snohomish River Basin Mainstem: Restored Riparian Habitat: Riparian planting (LC) (5 Acres)	5 acres riparian planted 1,760 feet channel restored	Chinook	Coho, Cutthroat, Chum, Pink, Bull Trout, Steelhead, Bald Eagle	Feasibility Pending	30% design report	$20,000					6/30/2013	Sound Salmon Solutions	$63,597	$75,977		SRFB (#11-1256), Sound Salmon Solutions
07-MPR-193	Restoration Projects	Mainstem-primary restoration	Snoqualmie at Cherry Creek Riparian and Edge Enhancement	Restore ecological functions to two miles of privately owned Snoqualmie River bank including revegetation of one mile of the steep 15-foot high mainstem river bank; and completing the ongoing project of planting one row of trees on 1.5-miles of river banktop pasture area.	85	B	Pressing need	Degraded Habitat-Channel Structure and Complexity		Riparian, Instream, Rivers/Streams/Shoreline	Activity Type - Riparian Habitat: Planting (6 Acres)	3 acres riparian planted	Chinook	Coho, Cutthroat, Chum, Pink, Bull Trout, Steelhead, Bald Eagle	Proposed							12/31/2015	Sound Salmon Solutions	$258,000	$75,977		SRFB (#11-1256), Sound Salmon Solutions (Potential funding through WA Dept. of Ecology)
07-MPR-401	Restoration Projects	Mainstem-primary restoration	Snoqualmie Mainstem Feasibility - Duvall Reach	Conduct a feasibility study of the Duvall Reach of the Lower Mainstem Snoqualmie River to determine possible restoration alternatives and locations.	85	B	Pressing need	Degraded Habitat-Channel Structure and Complexity		Riparian, Instream, Rivers/Streams/Shoreline	Activity Type - Riparian Habitat	Unknown	Chinook	Coho, Cutthroat, Chum, Pink, Bull Trout, Steelhead, Bald Eagle	Conceptual							12/31/2015	Sound Salmon Solutions	$258,000	$75,977		SRFB (#11-1256), Sound Salmon Solutions
07-MPR-372	Restoration Projects	Mainstem-primary restoration	Middle Pilchuck River Habitat Enhancement Project	Continue activities initiated under a previous SRFB grant (#07-1714). This proposed project will advance designs to 100%, fund the construction of two large wood projects, continue weed control efforts, and provide riparian planting in and adjacent to the construction areas. Approximately 3,600 feet of the right bank and 1,200 feet of the left bank will be targeted for invasive weed control and riparian planting. This equates to approximately 5.5 acres of weed control and 4.5 acres of riparian planting.	85	B	Pressing need	Degraded Habitat-Riparian Areas and LWD Recruitment, Degraded Habitat-Water Quality, Degraded Habitat-Stream Substrate		Riparian, Instream, Rivers/Streams/Shoreline	Activity Type - Riparian Habitat: Plant removal / control (5.5 Acres), Activity Type - Riparian Habitat: Planting (4.5 Acres), Snohomish River Basin Other Sub-basins Restoration: Restored Riparian Habitat: Riparian Planting (LC) (4.5 Acres)	5.5 acres invasives controlled 4.5 acres riparian planted	Chinook	Chum, Coho, Pink, Bull Trout	Feasibility Completed	Planting, weed control	$40,000	Planting, weed control	$30,000			6/30/2014	Sound Salmon Solutions	$453,352	$453,352		SRFB (#11-1263), Sound Salmon Solutions

2013 List

Project ID	Plan Category	Plan Catergory Level 2	Project Name	Project Description	Sequence score	Rank	Sequence Rank	Limiting Factors	Reference Document for limiting factor	Habitat Type	Activity Type and Project Performance	Project Performance (restore 30 acres of floodplain)	Primary Species Benefiting	Secondary Species Benefiting	Current Project Status	2013 Activity to be funded	2013 Estimated Budget	2014 Activity to be funded	2014 Estimated Budget	2015 Activity to be funded	2015 Estimated Budget	Likely End Date	Likely Sponsor	Total Cost of Project	Known Funding Secured	Local share or other funding	Source of funds (PSAR, SRFB, other)
07-MPR-393	Restoration Projects	Mainstem-primary restoration	Riparian Restoration at Stillwater Wildlife Area, 2010	Partner with the Washington Department of Fish and Wildlife, local community volunteers, and students to enhance at least 3 acres of riparian forest along Harris Creek and tributaries to the Snoqualmie River within the Stillwater Wildlife Area. The priority work area will be the right bank of lower Harris Creek near the mouth. Stillwater is a 450-acre parcel about three miles north of Carnation owned and managed by WDFW for wildlife habitat and public recreational access.	85	B	Pressing need	Degraded Habitat-Riparian Areas and LWD Recruitment		Riparian	Activity Type - Riparian Habitat: Plant removal / control (3 Acres), Activity Type - Riparian Habitat: Planting (3 Acres)	3 acres invasives controlled 3 acres riparian planted	Chinook	Coho, Bull Trout, Pink, Chum	Design Completed							6/28/2013	Sound Salmon Solutions	$90,000	$90,000		King Conservation District ($50K), Ducks Unlimited ($30K), RES, Inc. ($10K)
07-MPR-324	Restoration Projects	Mainstem-primary restoration	Raging River Tributary Fish Barrier Removal and Stream Habitat Restoration	The proposed restoration project will provide fish access to valuable off-channel rearing habitat by installing a fish passable culvert and realigning a degraded ditched stream channel. Coho salmon and steelhead will benefit directly from the proposed restoration and are the target species of the project. To allow fish passage upstream to off-channel rearing habitat, a fish passable culvert must be installed under a privately maintained gravel road. To prevent fish mortality and allow fish access to upstream habitat, the onsite wetland pond outflow must be realigned out of the currently degraded ditched channel. Channel realignment will require the excavation of approximately 150 feet of new stream channel. The newly excavated stream banks will be managed to control invasive plant species (mostly reed canarygrass). Native riparian plantings will be re-established throughout the riparian corridor. Large woody debris and gravel will be placed in the newly aligned stream channel.	85	B	Pressing need	Degraded Habitat-Channel Structure and Complexity, Degraded Habitat-Stream Flow		Riparian, Instream, Wetland, Rivers/Streams/Shoreline			Coho	Cutthroat , Steelhead	Feasibility Completed							8/16/2010	Tulalip Tribes	$37,400			
07-MPR-204	Restoration Projects	Mainstem-primary restoration	Fern Bluff Levee Enhancement.	Acquisition; increase flow in off channel slough behind levee; enhance tributary	85	B	Pressing need	Degraded Habitat-Floodplain Connectivity and Function, Degraded Habitat-Channel Structure and Complexity, Degraded Habitat-Stream Flow		Instream, Wetland, Rivers/Streams/Shoreline			Chinook	Cutthroat , Coho	Feasibility Pending							12/31/2012	Washington Department of Fish and Wildlife	$500,000			
07-MPR-398	Restoration Projects	Mainstem-primary restoration	Pilchuck Culvert Replacement	Replace, retrofit, or remove up to three anthroprogenic barriers in the Middle Pilchuck Creek sub-basin.	85	B	Pressing need	Degraded Habitat-Fish Passage		Instream	Activity Type - Fish Passage: Culvert Improvements / Upgrades (3 Each)	3 culverts improved or removed	Coho	Cutthroat, Chinook, Chum, Bull Trout, Steelhead	Conceptual	Final design and/or restoration of one culvert site	$100,000	Final design and/or restoration of the second culvert site	$200,000	Final design and/or restoration of the third culvert site	$250,000	12/31/2014	Wild Fish Conservancy	$550,000			Potential Funding Source: SRFB, Snohomish County, FFFPP
07-MPR-400	Restoration Projects	Mainstem-primary restoration	Raging River Side Channel Fish Passage Project (Phase II)	Remove / replace one fish passage (the Wilkenson driveway culvert) barrier and complete final designs for replacement of four additional full or partial fish passage barriers that exist upstream from the Wilkenson driveway culvert.	85	B	Pressing need	Degraded Habitat-Fish Passage		Instream	Activity Type - Fish Passage: Fish passage blockages removed or altered (5), Activity Type - Instream Habitat: Channel reconfiguration and connectivity (2000 Feet)	5 culverts replaced / removed 2000 feet of side channel reconnected	Chinook	Cutthroat, Chinook, Chum, Bull Trout, Steelhead	Conceptual	Submit proposal	$0	Culvert Removal	$100,000	Final designs and construction	$300,000	3/31/2016	Wild Fish Conservancy	$400,000	$400,000		Potential funding source: King Conservation District, Wild Fish Conservancy, FFFPP
07-MPR-031	Restoration projects	Mainstem-primary restoration	Lower Snohomish Mainstem (and Snoqualmie) assessment	Complete a reach-scale assessment of the Lower Snohomish and Lower Snoqualmie Rivers, using Snohomish County's reach assessment methodology. The project will identify process reach segments and propose projects that work with river processes to improve river edge, riparian habitat and instream structure within this reach.	85	B	Pressing need	Degraded Habitat - Channel Structure and Complexity, Degraded Habitat - Floodplain Connectivity and Function, Degraded Habitat - Riparian Areas and LWD Recruitment	Snohomish River Basin Salmon Conservation Plan, Snohomish Confluence Reach Restoration Assessment	Instream	Activity Type - comlete feasibility assessment	Completed assessment	Chinook	Chum, Bull trout, Steelhead, Cutthroat, Coho	Proposed	Assessment	$180,000	Design and permit	$120,000	Construction	$300,000		Snohomish County	$600,000			
07-MPR-338	Acquisition/Restoration (Combination)	Mainstem-primary restoration	Everett Marshland Tidal Wetland Restoration	Move to the feasibility/design stage to restore over 400 acres of diked land to tidally-influenced wetland that will connect to the Snohomish River through Lowell- Snohomish River Road.	75	B	Pressing need	Degraded Habitat-Floodplain Connectivity and Function, Degraded Habitat-Channel Structure and Complexity, Degraded Habitat-Riparian Areas and LWD Recruitment, Degraded Habitat-Estuarine and Nearshore Marine, Biological Processes	Snohomish River Basin Salmon Conservation Plan, Everett Marshland Sub-area Plan	Estuary (River Delta), Wetland, Rivers/Streams/Shoreline	Activity Type - Estuarine & Nearshore: Berm or Dike Removal or Modification (400 Acres)	400 acres tidal marsh restored	Chinook	Cutthroat , Chum, Coho, Pink, Bull Trout, Steelhead	Feasibility Pending, Conceptual						1/1/2020	City of Everett	$300,000			
07-MPR-328	Non-Capital Projects	Mainstem-primary restoration	Investigation of Low Dissolved Oxygen in the Snoqualmie Floodplain	Assess dissolved oxygen (DO) concentration in Snoqualmie floodplain tributaries by deploying data loggers in Cherry Valley and Ames Valley. Characterize the DO, sediment oxygen demand (SOD), and biological oxygen demand (BOD) in three Cherry Valley ditches both before and after they undergo extensive excavation for a funded restoration project.	75	B	Pressing need	Degraded Habitat-Water Quality		Instream	Assessment and monitoring	Data collected on water quality, hydraulic properties	Chinook	Cutthroat, Chum, Coho, Pink, Bull Trout, Steelhead	Feasibility Completed	None	$0	None	$0	None	$0	12/31/2014	Wild Fish Conservancy	$63,710	$64,000		King Conservation District, WA Dept. of Ecology
07-MPR-376	Restoration Projects	Mainstem-primary restoration	Weiss Creek Barrier Removal	Remove a derelict box culvert that creates a partial or full barrier to fish migration, remove bank armoring, remove Himalayan blackberries, revegetate disturbed areas with native riparian vegetation, and monitor the effectiveness of the project.	75	B	Pressing need	Degraded Habitat-Riparian Areas and LWD Recruitment, Degraded Habitat-Fish Passage		Riparian, Instream, Rivers / Streams / Shoreline	Activity Type - Fish Passage: Culvert Improvements / Upgrades (1 Each), Activity Type - Riparian Habitat: Plant removal / control (0.1 Acres), Activity Type - Riparian Habitat: Planting (0.1 Acres)	1 culvert removed 0.1 acres invasives controlled 0.1 acres riparian planted	Coho	Cutthroat , Steelhead	Design Completed	Effectiveness monitoring, outreach, and final report	$0	NA	$0	NA	$0	12/31/2013	Wild Fish Conservancy	$31,800	$31,800		King Conservation District, King County , Wild Fish Conservancy
07-MPR-057	Restoration Projects	Mainstem-primary restoration	Conservation Reserve Enhancement Program - Mainstem-primary	The Conservation Reserve and Enhancement Program provides resources to agricultural landowners to plant and fence riparian buffers along streams and rivers. Anticipated projects will take place throughout the sub-basin strategy group.				Degraded Habitat - Riparian Areas	Snohomish River Basin Salmon Conservation Plan	Riparian			Chinook, coho, steelhead, chum, pink		Conceptual	Construction	$11,000	Construction	$11,000	Construction	$11,000		Snohomish Conservation District	$33,000			Conservation Reserve Enhancement Program funds
07-MSR-019	Restoration Projects	Mainstem-secondary restoration	Trout Creek Road Erosion Control	This project would decommission 2.2 miles of Trout Creek Road (Forest Road 6320) and 3.6 miles of associated spurs in the Trout Creek subwatershed within the North Fork Skykomish River watershed. The goal is to reduce road-related sedimentation and associated impacts to fish habitats in Trout Creek, a stream with documented bull trout, steelhead, coho, and rainbow. The project would also meet a secondary goal to decommission roads within the Wild Sky Wilderness, newly designated under the Consolidated Natural Resources Act of 2008. Decommissioning these road segments would involve removing culverts, constructing cross-drain waterbars to improve drainage across the remaining road prism, removing hazardous fill material from stream crossings and unstable slopes, and blocking the roads to vehicular access. These roads would no longer be considered part of the FS road system. Measurable objectives include the miles of road treated,	90	A	Most pressing need	Degraded Habitat-Stream Substrate		Upland	Activity Type - Upland Habitat: Road abandonment and obliteration (5.80 Miles)		Bull Trout, Steelhead	Coho	Conceptual								10/29/2010	US Forest Service, Sustainable Fisheries Foundation	$395,000			
07-MSR-035	Restoration Projects	Mainstem-secondary restoration	Barclay Creek Stringer Bridge Removal	This project would remove a failing log stringer bridge on Forest Service Road 6024-510. The bridge stringers consist of multiple large logs, up to 4.5ft in diameter, which are currently constraining the Barclay Creek channel. Removing this bridge is listed as a high priority action in the North and South Fork Skykomish Watershed Action Plan.	80	B	Pressing need	Degraded Habitat - Fish Passage Degraded Habitat - Floodplain Connectivity and Function	Snohomish River Basin Salmon Conservation Plan USFS North and South Fork Skykomish Watershed Action Plan	Rivers/Streams/Shoreline	Activity Type - Bridge installed (1)	1 bridge installed	Chinook	Coho, Bull trout, Steelhead	Feasibility Completed							9/30/2012	Mt. Baker-Snoqualmie National Forest	$15,704			
07-MSR-018	Restoration Projects	Mainstem-secondary restoration	Conservation Reserve Enhancement Program	The Conservation Reserve and Enhancement Program provides resources to agricultural landowners to plant and fence riparian buffers along streams and rivers. Anticipated projects will take place throughout the sub-basin strategy group.	75	B	Pressing need	Degraded Habitat - Riparian Areas	Snohomish River Basin Salmon Conservation Plan	Riparian			Chinook, coho, steelhead, chum, pink		Conceptual	Construction	$5,000	Construction	$5,000	Construction	$5,000		Snohomish Conservation District	$15,000			Conservation Reserve Enhancement Program funds
07-RPR-022	Restoration Projects	Rural Streams-primary restoration	West Fork and Lower Woods Creek Restoration Partnership	The Woods Creek Watershed Habitat Conditions Report (draft) identifies priority restoration actions for Woods Creek. Upon completion of the final report, these restoration recommendations can be used to prioritize target areas and projects types. The goal of this project is to form partnerships within the basin to implement priority restoration actions.	85	B	Pressing need	Degraded Habitat-Channel Structure and Complexity, Degraded Habitat-Riparian Areas and LWD Recruitment, Degraded Habitat-Water Quality, Degraded Habitat-Stream Substrate, Biological Processes		Riparian, Instream	Snohomish River Basin Other Sub-basins Restoration: Restored Riparian Habitat: Riparian planting (LC) (33 Acres)		Chinook, Coho, Steelhead	Pink, Bull Trout	Feasibility Pending	Design and construction	$150,000	Design and construction	$250,000	Design and construction	$200,000	12/31/2015	Snohomish County of and Snohomish Conservation District	$600,000			
07-RPR-017	Restoration Projects	Rural Streams-primary restoration	Conservation Reserve Enhancement Program	The Conservation Reserve and Enhancement Program provides resources to agricultural landowners to plant and fence riparian buffers along streams and rivers. Anticipated projects will take place throughout the sub-basin strategy group.	75	B	Pressing need	Degraded Habitat - Riparian Areas	Snohomish River Basin Salmon Conservation Plan	Riparian			Chinook, coho, steelhead, chum, pink		Conceptual	Construction	$5,000	Construction	$5,000	Construction	$5,000		Snohomish Conservation District	$15,000			Conservation Reserve Enhancement Program funds
07-RPR-033	Restoration Projects	Rural Streams-primary restoration	Upper Waterwheel Restoration (Phase II - Final Design & Construction)	Final design and construction for fish passage barrier removal and re-naturalization and reconnection of primary and off-channel salmon and juvenile rearing habitats on Waterwheel Creek, a tributary to Cherry Creek.	80	B	Pressing need	Degraded Habitat-Floodplain Connectivity and Function, Degraded Habitat-Channel Structure and Complexity, Degraded Habitat-Riparian Areas and LWD Recruitment, Degraded Habitat-Water Quality, Degraded Habitat-Stream Flow, Degraded Habitat-Stream Substrate, Degraded Habitat-Fish Passage, Biological Processes		Riparian, Instream	Activity Type - Fish Passage: Fish passage blockages removed or altered (1), Activity Type - Instream Habitat: Channel reconfiguration and connectivity (750 Feet)	1 fish barrier removed 750 feet channel restored and reconnected	Coho	Cutthroat, Chum, Steelhead	Conceptual	Submit proposals	$0	Complete final designs and any necessary assessments (e.g., cultural resources if needed)	$50,000	Culvert replacement / removal and channel construction	$200,000	12/31/2017	Wild Fish Conservancy	$250,000	$250,000		Potential funding source: King Conservation District, SRFB, King County
07-RPR-030	Restoration Projects	Rural Streams-primary restoration	Sorgenfrei Fish Passage Project	Remove a partial barrier to fish migration on Sorgenfrei Creek. The barrier is holding back significant sediment. The channel approching the culvert turns twice at 45 degrees and may need to be realigned during replacement. Adopt A Stream proposes to work with the homeowners on the private drive to replace the existing culvert with an appropriate crossing and restore the stream channel and surrounding riparian vegetation.	75	B	Pressing need	Degraded Habitat-Fish Passage		Instream, Rivers/Streams/Shoreline	Activity Type - Fish passage blockages removed or altered (1 Each)	1 culvert removed			Conceptual								Adopt A Stream Foundation				Landowner?
07-RPR-018	Restoration Projects	Rural Streams-primary restoration	Cherry Valley Dairy Stream Enhancement	Improve 1 acre of riparian habitat and remove 1 fish barrier.	75	B	Pressing need	Degraded Habitat-Floodplain Connectivity and Function, Degraded Habitat-Riparian Areas and LWD Recruitment		Riparian	Activity Type - Fish Passage: Culvert installed (1 Each), Activity Type - Riparian Habitat: Planting (1 Acres)	1 culvert installed 1 acre riparian planted	Coho	Cutthroat , Chinook, Steelhead	Feasibility Pending, Design Completed	Construction	$120,000					12/31/2013	Stewardship Partners	$120,000			
07-RPR-031	Restoration Projects	Rural Streams-primary restoration	Upper Waterwheel Restoration (Phase I -Design)	Development, conceptual design, and permitting for fish passage barrier removal and re-naturalization and reconnection of primary and off-channel salmon and juvenile rearing habitats on Waterwheel Creek, a tributary to Cherry Creek.	75	B	Pressing need	Degraded Habitat-Floodplain Connectivity and Function, Degraded Habitat-Channel Structure and Complexity, Degraded Habitat-Riparian Areas and LWD Recruitment, Degraded Habitat-Water Quality, Degraded Habitat-Stream Flow, Degraded Habitat-Stream Substrate, Degraded Habitat-Fish Passage, Biological Processes		Riparian, Instream	Activity Type - Fish Passage: Fish passage blockages removed or altered (1), Activity Type - Instream Habitat: Channel reconfiguration and connectivity (750 Feet)	1 fish barrier removed 750 feet channel reconnected	Coho	Cutthroat, Chum, Steelhead	Feasibility Pending	Attend meetings with landowners, complete and submit construction permits	$0	None	$0	None	$0	12/31/2013	Wild Fish Conservancy	$31,580	$31,580		King Conservation District
07-RSR-051	Restoration Projects	Rural Streams-secondary restoration	Harris Creek Barrier Removal and Off-Channel Habitat Restoration	The proposed project will restore fish access to valuable off-channel rearing habitat in the Harris Creek watershed by removing a road prism that currently acts as a fish passage barrier. Approximately 0.6 miles (3,200 feet) and 7 acres (304,920-sq, ft.) of ponded wetland and stream channel habitat exists above the barrier and will be made accessible to fish upon completion of the project. Currently a road prism (approximately 360 feet in length) crosses the stream corridor and blocks fish passage. Long term fish passage will be prevented until the road prism fill is removed to match the grade of the surrounding area. Benefits of the project include restoring fish access to valuable off-channel fish habitat, promoting high quality rearing and spawning habitat for salmonids, and increasing juvenile survival rates.	95	A	Most pressing need	Degraded Habitat-Floodplain Connectivity and Function, Degraded Habitat-Channel Structure and Complexity, Degraded Habitat-Stream Flow		Instream, Wetland, Rivers/Streams/Shoreline	Snohomish River Basin Other Sub-basins Restoration: Restored Off-channel Habitat: Winter/Spring off-channel habitat restoration (LC) (7 Acres)		Coho	Cutthroat , Steelhead	Feasibility Completed							6/1/2013	Tulalip Tribes	$45,620			
07-RSR-050	Acquisition Projects	Rural Streams-secondary restoration	Patterson Creek State DNR Land Acquisition	Work with State DNR to protect 160 acres	85	B	Pressing need	Degraded Habitat-Channel Structure and Complexity, Degraded Habitat-Riparian Areas and LWD Recruitment, Biological Processes		Instream	Snohomish River Basin Other Sub-basins Restoration: Restored Riparian Habitat: Acquisition (LC) (160 Acres)		Steelhead	Cutthroat , Coho	Conceptual							12/31/2012	King County DNRP	$2,500,000			
07-RSR-048	Restoration Projects	Rural Streams-secondary restoration	Storybook Creek Stream Enhancement	Partner with landowner to relocate channelized trib restoring 950 feet of this tributary to Patterson Creek and restore 1.4 acres of riparian habitat	65	C	Need	Degraded Habitat-Channel Structure and Complexity, Degraded Habitat-Riparian Areas and LWD Recruitment		Riparian	Activity Type - Instream Habitat: Channel reconfiguration and connectivity (0.20 Feet), Activity Type - Riparian Habitat: Planting (1.40 Acres), Snohomish River Basin Other Sub-basins Restoration: Restored Riparian Habitat: Riparian planting (LC) (1.40 Acres)		Coho		Feasibility Pending							12/31/2012	King County DNRP	$25,000			
07-RSR-049	Acquisition Projects	Rural Streams-secondary restoration	Patterson Creek Protection on Stevlingson Property	Work with landowner to protect 10 acres property on the alluvial fan of Patterson. Would include significant floodplain/riparian restoration & structure removal.	65	C	Need	Degraded Habitat-Channel Structure and Complexity, Degraded Habitat-Riparian Areas and LWD Recruitment, Degraded Habitat-Stream Substrate		Instream	Snohomish River Basin Other Sub-basins Restoration: Restored Riparian Habitat: Acquisition (LC) (10 Acres)		Steelhead	Coho	Feasibility Pending							12/31/2012	King County DNRP	$425,000			

2013 List

Project ID	Plan Category	Plan Catergory Level 2	Project Name	Project Description	Sequence score	Rank	Sequence Rank	Limiting Factors	Reference Document for limiting factor	Habitat Type	Activity Type and Project Performance	Project Performance (restore 30 acres of floodplain)	Primary Species Benefiting	Secondary Species Benefiting	Current Project Status	2013 Activity to be funded	2013 Estimated Budget	2014 Activity to be funded	2014 Estimated Budget	2015 Activity to be funded	2015 Estimated Budget	Likely End Date	Likely Sponsor	Total Cost of Project	Known Funding Secured	Local share or other funding	Source of funds (PSAR, SRFB, other)
07-RSR-061	Restoration Projects	Rural Streams-secondary restoration	Patterson Creek Culvert Replacement(s)	Replace, retrofit, or remove up to three anthroprogenic barriers in the Patterson Creek basin.	65	C	Need	Degraded Habitat-Fish Passage		Instream	Activity Type - Fish Passage: Culvert Improvements / Upgrades (3 Each)	3 culverts improved or removed	Coho	Cutthroat, Bull Trout, Steelhead	Conceptual	Final design and/or restoration of one culvert site	$155,750	Final design and/or restoration of the second barrier site (replacement of one culvert one culvert barrier and one non-culvert anthroprogenic barrier)	$125,350	Final design and/or restoration of the third barrier site (involves relocating the channel)	$278,900	12/31/2014	Wild Fish Conservancy	$560,000			Potential funding source: SRFB, King County, FFFPP, King Conservation District
07-HSP-004	Restoration Projects	Headwaters Secondary Protection	Miller River Restoration	King County will conduct a feasibility analysis and work with local partners to explore options to reestablish river flow patterns, meanders, and floodplain channels that have been altered or obstructed by the transportation network that bisects the Miller River alluvial fan. The Analysis will examine actions such as the removal or setback of levee/revetments, road and bridge realignment and culvert upgrades with input from the local community and consideration of transportation needs. The Analysis will inform a preferred alternative for the implementation of one or more habitat restoration projects that will improve habitat-forming processes for Chinook salmon, steelhead trout, bull trout (all threatened under the Endangered Species Act, (ESA)) while reducing or eliminating the habitat impacts associated with ongoing road maintenance and repair.	75	B	Pressing need	Degraded Habitat-Floodplain Connectivity and Function, Degraded Habitat-Channel Structure and Complexity		Instream	Activity Type - Instream Habitat: Channel reconfiguration and connectivity (5000 Feet), Snohomish River Basin Other Sub-basins Restoration: Restored Off-channel Habitat: Summer off-channel habitat restoration (LC) (2 Acres), Snohomish River Basin Other Sub-basins Restoration: Restored Riparian Habitat: Riparian planting (LC) (7 Acres)	5,000 feet channel reconnected 2 acres summer off-channel restored 7 acres riparian planted	Bull Trout	Cutthroat , Coho, Steelhead	Feasibility Pending							12/31/2013	US Forest Service, King County DNRP	$280,000			
07-HSR-008	Restoration Projects	Headwaters Secondary Restoration	South Fork Skykomish Headwaters Acquisitions	Protect up to 2,000 acres in headwaters of South Fork Skykomish Watershed from roadbuilding, logging, granite mining and potential recreational residence development.	80	B	Pressing need	Degraded Habitat-Stream Flow, Degraded Habitat-Stream substrate, Degraded Habitat-Water quality	Snohomish River Basin Salmon Conservation Plan	Upland	Actifity Type - Acquisition	2,000 acres	Chinook	Chinook, Coho, Bull Trout, Steelhead	Feasibility Pending	Contact major land owner and develop acquisition agreement; prepare grant applications	$ 50,000	Acquire initial parcels	$ 3,000,000	Acquisition of Conservation Easement	$ 6,000,000	42735	Forterra, US Forest Service	$ 9,050,000		LWCF	
07-HSR-020	Restoration Projects	Headwaters Secondary Restoration	Harlan Creek Road Obliteration	Obliteration of up to 10 miles of logging roads on steep, unstable slopes adjacent to Harlan Creek, a salmon-bearing tributary to the Beckler River. Road densities in these two sections acquired by the Forest Service are very high, 8 miles per square mile each, and road-related sediments are entering Harlan Creek, degrading spawning and rearing habitats. Project map shows proposed work; decision has not yet been made.	90	A	Most pressing need	Degraded Habitat-Stream Substrate		Upland	Activity Type - Upland Habitat: Road abandonment and obliteration (10 Miles)	10 miles road abandoned	Chinook, Coho, Bull Trout, Steelhead	Cutthroat , Chum, Pink	Feasibility Completed							11/1/2012	Mt. Baker-Snoqualmie National Forest	$385,000			
07-HSR-029	Restoration Projects	Headwaters Secondary Restoration	Alpine Baldy Road Decommissioning - U.S. Forest Service Roads 6066 & 6067	This project would decommission the following Forest Service road segments: the upper 1.4 miles of FS Rd 6066; the entire 4.6 miles of FS Rd 6067; an additional 1.0 mile of spur roads on FS Rd 6067; and the last 2.0 miles of FS Rd 6570 (aka the San Juan Hill road).	90	A	Most pressing need	Degraded Habitat-Stream Substrate		Upland	Activity Type - Upland Habitat: Road abandonment and obliteration (3.40 Miles)	3.4 miles road abandoned	Chinook, Coho, Bull Trout, Steelhead	Cutthroat , Chum, Sockeye, Pink	Feasibility Pending							10/28/2013	US Forest Service	$680,000			
07-HSR-019	Acquisition Projects	Headwaters Secondary Restoration	South Fork Skykomish Acquisitions	Acquisition of up to 700 acres of shore lands on salmon spawning reaches of South Fork Sky and key tributaries: Miller, Beckler, Foss, Tye Rivers.	85	B	Pressing need	Degraded Habitat-Floodplain Connectivity and Function, Degraded Habitat-Riparian Areas and LWD Recruitment, Biological Processes		Rivers/Streams/Shoreline	Snohomish River Basin Mainstem: Restored Edge: Acquisition in the Mainstem Sub-basin Strategy Groups (LC) (35 Acres), Snohomish River Basin Other Sub-basins Restoration: Restored Riparian Habitat: Acquisition (LC) (35 Acres)	Acquire 300 acres	Chinook	Cutthroat , Coho, Bull Trout, Steelhead	Proposed	Contact major land owner and develop acquisition agreement; prepare	$50,000	Acquire initial parcels (~80 acres)	$2,000,000	Acquire initial parcels (~160 acres)	$4,000,000	12/31/2015	Forterra, King County DNRP	$6,050,000		King County CFT; WWRP; LWCF	
07-BW-006	Restoration Projects	Basinwide	Skykomish Forks Restoration Plan	Design to at least 30% for multiple instream and riparian restoration projects in North and South Fork Skykomish Rivers and selected tributaries (e.g., Miller River).	75	B	Pressing need	Degraded Habitat-Channel Structure and Complexity, Degraded Habitat-Riparian Areas and LWD Recruitment		Riparian, Instream, Rivers/Streams/Shoreline		30% design for instream and riparian projects	Chinook	Coho, Bull Trout, Steelhead	Feasibility Pending							10/1/2011	US Forest Service	$350,000			
07-BW-008	Non-Capital Projects	Basinwide	Fish Passage Barrier Prioritization (Phase II)	Expand the number of basins represented on the WRIA-07 BPMS web based mapping system (a web system designed to make prioritizing anthropogenic barriers in WRIA 7 easier and faster for federal, state, and tribal agencies and for local biologist, municipalities, citizen groups and private land owners). Add a ranking ability to the existing BPMS interactive webpage.	75	B	Pressing need	Degraded Habitat-Fish Passage		Riparian, Rivers / Streams / Shoreline	Web-based mapping of fish barriers	Mapping system enhanced	Coho	Cutthroat, Chinook, Chum, Bull Trout, Steelhead	Conceptual	Data collection / data assemblage / GIS construction	$100,000	Data collection / data assemblage / edits and GIS construction	$100,000	GIS construction, edits, and final report	$100,000	8/31/2014	Wild Fish Conservancy	$300,000			Potential funding source: SRFB, DOE
07-HRA-008	Restoration Projects	Headwaters Restoration Above Falls and Dam	South Fork Snoqualmie Road Decommissioning	Reduce erosion potential and road density in South Fork Snoqualmie by decommissioning 24 miles of Forest Service roads and treating another 24 miles before placing them into storage for potential future use. Nineteen of these miles would be converted to trail.	90	A	Most pressing need	Degraded Habitat-Stream Substrate		Upland	Activity Type - Upland Habitat: Road abandonment and obliteration (48 Miles)	48 miles road abandoned	Rainbow, Cutthroat	Chinook, Coho, Bull Trout, Steelhead	Feasibility Pending, Design Completed, Construction Completed							10/15/2014	Mountains to Sound Greenway Trust, US Forest Service	$1,025,000			
07-HRA-009	Restoration Projects	Headwaters Restoration Above Falls and Dam	Bessemer Mtn Road Decommissioning	Decommission 9.5 miles, and convert 5.6 miles of roads to trails on Bessemer Mtn (North Fork Snoqualmie). The work would mostly be pulling culverts with some embankment pullback, ripping some of the surface and partially recontouring some of it.	90	A	Most pressing need	Degraded Habitat-Stream Substrate		Upland		9.5 miles road decommissioned 5.6 miles road converted to trails	Rainbow, Cutthroat	Chinook, Coho, Bull Trout, Steelhead	Design Completed, Permitting Completed							9/30/2011	WA Dept. of Natural Resources , US Forest Service	$600,000			
07-HRA-030	Restoration Projects	Headwaters Restoration Above Falls and Dam	Upper Snoqualmie River Knotweed Control and Riparian Restoration	Treat knotweed infested sites and replant appropriate areas along up to 16 river miles on major tributaries in the Upper Snoqualmie Basin. The project will involve 6 river miles of initial treatment and up to 16 river miles of maintenance retreatment along with 6,000 linear feet per year of riparian restoration.	85	B	Pressing need	Degraded Habitat-Riparian Areas and LWD Recruitment		Riparian	Activity Type - Riparian Habitat: Plant removal / control (1 Acres)	1 acre invasives controlled 1 acre riparian planted	Rainbow, Cutthroat		Feasibility Pending							12/31/2013	King County DNR & Parks	$460,000			
07-USR-044	Restoration Projects	Urban Streams restoration	Allen Creek Stewardship Project	Landowner outreach to implement water quality and riparian best management practices and conduct instream restoration.	70	B	Pressing need	Degraded Habitat-Fish Passage		Instream			Coho	Cutthroat, Chum	Conceptual							10/31/2012	Adopt A Stream Foundation	$186,000			WA Dept. of Ecology (according to HWS), Landowner?
07-USR-059	Restoration Projects	Urban Streams restoration	Olaf Strad Relocation and Restoration	Move 1000 feet of Olaf Strad Creek out of a roadside ditch onto private property, re-establish riparian vegetation, and install instream habitat features.	65	C	Need	Degraded Habitat-Floodplain Connectivity and Function, Degraded Habitat-Channel Structure and Complexity, Degraded Habitat-Riparian Areas and LWD Recruitment, Degraded Habitat-Water Quality		Upland, Riparian, Instream, Wetland, Rivers/Streams/Shoreline	Activity Type - Instream Habitat: Channel reconfiguration and connectivity (1,000 Feet), Activity Type - Riparian Habitat: Planting (x Acres)	1,000 feet channel reconfigured x acres riparian planted			Conceptual								Adopt A Stream Foundation				(note: application for this project listed as dead in PRISM)
07-USR-039	Restoration Projects	Urban Streams restoration	Coho Creek Restoration	The Coho Creek Restoration Project will restore and enhance 6,000 feet of stream channel, 8 acres of riparian forest and improve connectivity to adjacent forest communities. The project will also restore natural hydrologic connection and functions to sub-basins forest, wetland and streams. Restoration involves excavating 6,000 feet of stream channel replacing a ditch that Coho Creek currently occupies, constructing riffles or spawning areas, installing large woody debris, and replanting streambanks and adjacent forest areas.	65	C	Need	Degraded Habitat-Channel Structure and Complexity		Instream			Coho	Cutthroat , Chum	Feasibility Completed, Design Completed, Permitting Completed							12/31/2011	Tulalip Tribes	$1,175,000			
	Habitat	Fish passage	Passage of adult fish around Sunset Falls velocity barrier	Trap and haul adult fish around Sunset Falls to utilize spawing and rearing habitat throughout the South Fork Skykomish system	#REF!								Chinook, coho steelhead		underway	Trapping and hauling	[NEED FROM WDFW]	Trapping and hauling	[NEED FROM WDFW]	Trapping and hauling	[NEED FROM WDFW]	Ongoing	WDFW				WDFW
07-NC-002	Habitat - protection and restoration	Non-Capital: BMP Implementation	Implement the Targeted Stewardship Model - King County and PRKC	Implement EPA funded Targeted Stewardship grant in Patterson Creek and Raging River subbasin then export to other subbasins	#REF!					Restoration, outreach, education, technical assistance.			Chinook	Cutthroat, Chum, Coho, Pink, Bull Trout, Steelhead	Implementation	Restoration, outreach, education, technical assistance	$500,000	Restoration, outreach, education, technical assistance	$200,000	Restoration, outreach, education, technical assistance	$200,000	Ongoing	KC, Partnership for Rural King County	$900,000			
07-NC-003	Habitat - protection and restoration	Non-Capital: BMP Implementation	Land-use specific stewardship	Provide specific stewardship for key land uses, such as urban areas (UD), forestry and agriculture.	#REF!			Across all limiting factors.		Restoration, outreach, education, technical assistance.			Chinook	Cutthroat, Chum, Coho, Pink, Bull Trout, Steelhead	Implementation	Restoration, outreach, education, technical assistance	$210,000	Restoration, outreach, education, technical assistance	$210,000	Restoration, outreach, education, technical assistance	$210,000	Ongoing	SC, KC, Tulalip Tribes, local jurisdictions, SCD, KCD, CLC, WSU	$630,000			
07-NC-004	Habitat - protection and restoration	Non-Capital: BMP Implementation	NPDES implementation	Including STORM	#REF!										Implementation								all local jurisdictions				
07-NC-005	Habitat - protection and restoration	Non-Capital: BMP Implementation	Provide basin steward staff.	Stewards provide technical assistance, project development, behavior change across the basin. Staffing would be for SC, KC.	#REF!			Across all limiting factors.		Restoration, outreach, education, technical assistance.			Chinook	Cutthroat, Chum, Coho, Pink, Bull Trout, Steelhead	Implementation	Restoration, outreach, education, technical assistance	$210,000	Restoration, outreach, education, technical assistance	$210,000	Restoration, outreach, education, technical assistance	$210,000	Ongoing	SC, KC	$630,000			
07-NC-006	Habitat - protection and restoration	Non-Capital: BMP Implementation	Snoqualmie Watershed Water Quality Synthesis Report Implementation	Implement actions from the Water Quality Report including monitoring, restoration and BMP implementation.	#REF!										Implementation	Restoration, outreach, education, technical assistance	$50,000	Restoration, outreach, education, technical assistance	$50,000	Restoration, outreach, education, technical assistance	$50,000	Ongoing	Snoqualmie Watershed Forum and King County	$150,000			
07-NC-007	Habitat - protection and restoration	Non-Capital: BMP Implementation	WSU Extension Beach Watchers Program	Increase capacity for research, restoration and education relating especially to the nearshore, estuarine and marine environments. Provide workshops and engage the Beach Watchers in 1,000 hours of community service.	#REF!			Nearshore and estuarine restoration, monitoring.		Outreach and education.			Chinook	Cutthroat, Chum, Coho, Pink, Bull Trout, Steelhead	Implementation	Implement.	$210,000	Implementation	$70,000	Implementation	$70,000	Ongoing	WSU Extension	$350,000			
07-NC-008	Habitat - protection and restoration	Non-Capital: Outreach for Awareness	Outreach specialist - Tulalip Tribes		#REF!										Implementation								Tulalip Tribes				
07-NC-009	Habitat Protection	Non-Capital: Incentives	PBRS and landowner current use tax incentives	Assist King County in enrolling landowners in PBRS and other landowner current use tax programs	#REF!										Implementation	Implementation	$100,000	Implementation	$100,000	Implementation	$100,000	Ongoing	King County	$300,000			
07-NC-010	Habitat - protection and restoration	Non-Capital: Outreach for Awareness	Public Beach Naturalist Program and Shore Stewards	WSU Beach watchers will engage with general visitors and organized school groups at public beaches to increase Puget Sound literacy and reduce visitor impacts.	#REF!										Implementation	Implementation	$7,000	Implementation	$7,000	Implementation	$7,000	Ongoing	WSU extension				
07-NC-011	Habitat - protection and restoration	Non-Capital: Outreach for Awareness	Puget Sound Starts Here Campaign	Public awareness and BMP implementation campaign	#REF!								Not salmon-specific		Implementation												
07-NC-012	Habitat - protection and restoration	Non-Capital: Outreach for Awareness	School outreach: King County; Snohomish County; Nature Vision Blue Teams, SSTT REYs education program	Raise Awareness among school-aged children	#REF!			Across all limiting factors.		REYs education programork with 4 schools and approximately 450 community members			Chinook	Cutthroat, Chum, Coho, Pink, Bull Trout, Steelhead	Implementation	Implementation	$90,000	Implementation	$90,000	Implementation	$90,000	Ongoing	Stilly-Snohomish Fisheries Enhancement Task Force	$270,000			
07-NC-013	Habitat Protection	Non-Capital: Incentives	Snoqualmie Conservation Strategy	Identify a common conservation vision, map key resources, identify viable funding sources, and evaluate ecosystem services in the Snoqualmie Basin	#REF!										Implementation								Stewardship Partners				
07-NC-014	Habitat Protection	Non-Capital: Planning	Habitat Protection Strategy	Develop a protection strategy to address the challenges of development and climate change by conducting a watershed characterization, reach-scale process analysis, working with a stakeholder group to develop a protection vision, and implementing early action elements.	#REF!			nearshore connectivity, forest cover, hydrology, sediment.		Strategic, actionable habitat protection plan			Chinook	Cutthroat, Chum, Coho, Pink, Bull Trout, Steelhead	Implementation		$220,000	Implement.	$220,000	Implement.	$220,000	Ongoing.	SC, KC, Tulalip Tribes				EPA, Snohomish County, King County, Tulalip Tribes
07-NC-015	Habitat Protection	Non-Capital: Planning	Skykomish Valley Conservation Projects	Identification of priority large forest land acquisitions, fund acquisitions of forested river front parcel, and identify funding for GIS work to assess smaller priority parcels along the Skykomish River Valley.	#REF!																		Cascade Land Conservancy				
07-NC-016	Habitat - protection and restoration	Non-Capital: Policy	Advocacy / watchdog?	Environmental Priorities Coalition, Clean Water Act / Pollution Enforcement and Education	#REF!																		People for Puget Sound, Wild Fish Conservancy, Puget Soundkeepers Alliance				
07-NC-017	Habitat - protection and restoration	Non-Capital: Policy	Policy work conducted by basin partners?		#REF!																		KC, SC, TT, SCL				

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Project ID	Plan Category	Plan Catergory Level 2	Project Name	Project Description	Sequence score	Rank	Sequence Rank	Limiting Factors	Reference Document for limiting factor	Habitat Type	Activity Type and Project Performance	Project Performance (restore 30 acres of floodplain)	Primary Species Benefiting	Secondary Species Benefiting	Current Project Status	2013 Activity to be funded	2013 Estimated Budget	2014 Activity to be funded	2014 Estimated Budget	2015 Activity to be funded	2015 Estimated Budget	Likely End Date	Likely Sponsor	Total Cost of Project	Known Funding Secured	Local share or other funding	Source of funds (PSAR, SRFB, other)
07-NC-018	Habitat Protection	Non-Capital: Policy	Shoreline Master Program Updates and Restoration Plans	Assist cities in updating SMP regulations and developing SMP restoration plans	#REF!										Implementation	Planning	$50,000	Planning	$50,000			2011	Cities in WRIA 7	$100,000			Cities, Snoqualmie Watershed Forum and DOE grants
07-NC-019	Habitat Protection	Non-Capital: Policy	TDR and PDR Development		#REF!																		Cascade Land Conservancy, King County, Snohomish County				
07-NC-020	Habitat - protection and restoration	Non-Capital: Social Capital	Cascade Agenda	The addition of a Cascade Agenda Leadership City and the Cascade Agenda Community Stewards Program	#REF!								Not salmon-specific										Cascade Land Conservancy				
07-NC-021	Habitat - protection and restoration	Non-Capital: Social Capital	General Program Maintenance	Provide staffing capacity for the Snohomish Basin salmon recovery effort	#REF!								Chinook	Cutthroat, Chum, Coho, Pink, Bull Trout, Steelhead	Implementation	Staffing	$300,000	Staffing	$300,000	Staffing	$300,000		Econet Participants...	$900,000			
07-NC-022	Habitat - protection and restoration	Non-Capital: Social Capital	General Program Maintenance	Build skills and knowledge of basin staff and project sponsors: basin workshops, facilitated discussions, tours and a "grant" fund for sponsors to use for specific training.	#REF!								Chinook	Cutthroat, Chum, Coho, Pink, Bull Trout, Steelhead	Implementation	Technical assistance	Not quantified	Technical assistance	Not quantified	Technical assistance	Not quantified						
07-NC-023	Habitat - protection and restoration	Non-Capital: Social Capital	Information Sharing	Supporting econet and project working group	#REF!								Not salmon-specific										EcoNet, STORM, PWG, TC, PDC, Forum				
07-NC-024	Habitat - protection and restoration	Non-Capital: Social Capital	Snohomish County Beach Watchers	Build volunteer capacity on marine, estuarine, and aquatic education, research and restoration in communities through out Snohomish County and Camano Island.	#REF!										Implementation	Implementation	$90,000	Implementation	$90,000	Implementation	$90,000	Ongoing	WSU extension	$270,000			
07-NC-025		Non-capital: Planning	Habitat Protection: Pilchuck Pilot	Implement a pilot project on the Pilchuck River to test the Snohomish Basin hydrologic protection technical methodology, using less public involvement.	#REF!						Pilot protection study	Pilot study final report	Chinook		Implementation	Implementation	$65,000						Tulalip Tribes SC, KC	$65,000			U.S. EPA tribal grants
	Hatchery	Monitoring	Direct assessment of gene flow in chinook	Relative productivity and reproductive success of hatchery- and natural-origin Snohomish Chinook salmon using genetic-based parentage analysis: Collect and analyze tissues for DNA analysis from outmigrating smolts and natural Chinook spawners and hatchery broodstock, assign parentage & estimate relative productivity	100								Chinook		High Priority Not Funded	Genetic tissue sampling and data analysis	$75,000	Genetic tissue sampling and data analysis	$75,000	Genetic tissue sampling and data analysis	$75,000	2015	Tulalip	$225,000			
	Hatchery	Monitoring	Analysis of stock assessment samples	Annually operate Tulalip Stock Assessment Laboratory (TSAL) for stock assessment: otoliths, coded-wire tags, scales, GSI	?								Chinook, coho		underway	Sample analysis	$75,000	Sample analysis	$75,000	Sample analysis	$75,000	ongoing	Tulalip	$225,000			
	H-integration	Monitoring	Annual Snoqualmie and Skykomish smolt trap operations	Annually operate smolt traps on Skykomish and Snoqualmie Rivers	?								Chinook, coho		underway	Smolt enumeration and biological sampling	$400,000	Smolt enumeration and biological sampling	$400,000	Smolt enumeration and biological sampling	$400,000	ongoing	Tulalip	$1,200,000			
	Hatchery	Monitoring	Straying reduction study	To better understand the factors that correlate with straying of Chinook.	?								Chinook, coho		Not Funded	N/A	$0	Differential tagging, imprinting and sampling	$60,000	Differential tagging, imprinting and sampling	$60,000	2016 for funding, 2021 for data recovery	Tulalip	$300,000			
	Hatchery	Marking	Mass marking improvements	Rewiring for adipose fin mass marking trailer and purchase and replacement of chillers for otolith thermal marking of all (100%) Tulalip hatchery production (all species)									Chinook, coho, chum		Not Funded	Replace 12 old, small chillers (one marking system) with two commercial-grade chiller/marking systems. Replace & upgrade wiring at hatchery to enable mass adipose fin marking without electrical fires	$169,254	Differentially thermally mark 100% oall (100%) Tulalip hatchery production (all species)	$0	Differentially thermally mark 100% oall (100%) Tulalip hatchery production (all species): No funding requested	$0	2011 for funding, thereafter no funding but needed for annual thermal 100% marking, sample recovery, analysis, contribution rate analyses (hatcheries, fisheries, or natural escapements), gene flow, hat/wild ecol/genet interactions	Tulalip	$169,254			
	Hatchery	Monitoring	Analysis of stock assessment samples	Construct and equip room for CWT extraction and reading at TSAL									Chinook, coho		Not Funded	N/A	$0	Construct and equip room for CWT extraction and reading at TSAL	$60,000	Annually analyze CWTs extracted from Chinook/Coho in terminal fisheries/hatcheries/ natural escapement: No funding requested	$0	2012 for funding, thereafter no funding but equipment will be used annually to analyze CWTs extracted from Chinook/Coho in terminal fisheries/hatcheries /natural escapement	Tulalip	$60,000			
	Hatchery	Monitoring	Analysis of stock assessment samples	Purchase CWT Reading Equipment: V Detector with transit case, Magniviewer, Illuminator, Tag Reading jig with magnetic pencils									Chinook, coho		Not Funded	Purchase tag-reading equipment	$6,100	Annually analyze CWTs extracted from Chinook/Coho in terminal fisheries/hatcheries/natural escapement: No funding requested	$0	Annually analyze CWTs extracted from Chinook/Coho in terminal fisheries/hatcheries/ natural escapement: No funding requested	$0	2011 for funding, thereafter no funding requested to annually analyze CWTs extracted from Chinook/Coho in terminal fisheries/hatcheries /natural escapement	Tulalip	$6,100			
	Harvest, Hatchery	Monitoring	Hatchery escapement monitoring	Sample Wallace and Tulalip Hatcheries for scales, otoliths, and coded-wire tags to assess hatchery contribution rates	100								Chinook	coho, chum	Underway	State and Tribal hatchery sampling	$10,000	State and Tribal hatchery sampling	$10,000	State and Tribal hatchery sampling	$10,000	ongoing	Tulalip and WDFW	$30,000			
	H-integration	Monitoring	Natural escapement monitoring	Sample Snohomish natural escapement for scales, otoliths, and coded-wire tags to assess hatchery contribution rates	100								Chinook	coho, chum	Underway	State and Tribal escapement sampling	$60,000	State and Tribal escapement sampling	$60,000	State and Tribal escapement sampling	$60,000	ongoing	Tulalip and WDFW, Sno. PUD	$180,000			
	Hatchery	Broodstock Management	Skykomish chinook broodstock integration		100								Chinook		Underway	Collection of NOR broodstock and incorporation into WRH hatchery broodstock	$12,000	Collection of NOR broodstock and incorporation into WRH hatchery broodstock	$12,000	State and Tribal hatchery genetic NOR broodstock collection and incorporation into WRH hatchery broodstock	$12,000	ongoing	Tulalip and WDFW	$36,000			
	Hatchery	Marking and monitoring	Thermal marking of Tulalip hatchery production	Thermally mark otoliths of Tulalip chinook and coho	100								Chinook	coho	Underway	Thermal marking during egg incubation	$7,500	Thermal marking during egg incubation	$7,500	Thermal marking during egg incubation	$7,500	ongoing	Tulalip	$22,500			
	Hatchery	Fish Passage	Tokul Creek Fish Passage - Phase 2	[NEED PROJECT INFORMATION FROM WDFW]	100								Chinook		Underway							ongoing	WDFW				
	Harvest	Regulation/Enforcement	Develop, communicate, and enforce fishing regulations	Convert the results of the annual fishery planning process into regulations and platforms for communicating those (e.g. recreational fishing pamphlet) and disseminate the same. Enforce regulations through on-the-water presence of uniformed officers, sanctions for violations, etc..	100								Chinook, coho, chum, pink		ongoing	Convert the results of the annual fishery planning process into regulations and platforms for communicating those (e.g. recreational fishing pamphlet) and disseminate the same. Enforce regulations through on-the-water presence of uniformed officers, sanctions for violations, etc..	Hard to tally up all components of this.	Convert the results of the annual fishery planning process into regulations and platforms for communicating those (e.g. recreational fishing pamphlet) and disseminate the same. Enforce regulations through on-the-water presence of uniformed officers, sanctions for violations, etc..	Hard to tally up all components of this.	Convert the results of the annual fishery planning process into regulations and platforms for communicating those (e.g. recreational fishing pamphlet) and disseminate the same. Enforce regulations through on-the-water presence of uniformed officers, sanctions for violations, etc..	Hard to tally up all components of this.	ongoing	WDFW, Tulalip				
	Harvest	Assessment	Estimate exploitation rates, reconstruct run sizes	Analyze information from coast-wide fishery sampling to compute exploitation rates after the fact.	100								Chinook, coho		ongoing	Assemble CWT data into coast-wide database. Use these, plus information on the amount of fish harvested and escapement to estimate exploitation rates. Where there are mark-selective fisheries also need to use methods developed for double-index CWT analysis.	Very difficult to compute enire amount for west coast planning or to separate portion attributable to Snohomish chinook	Assemble CWT data into coast-wide database. Use these, plus information on the amount of fish harvested and escapement to estimate exploitation rates. Where there are mark-selective fisheries also need to use methods developed for double-index CWT analysis.	Very difficult to compute enire amount for west coast planning or to separate portion attributable to Snohomish chinook	Assemble CWT data into coast-wide database. Use these, plus information on the amount of fish harvested and escapement to estimate exploitation rates. Where there are mark-selective fisheries also need to use methods developed for double-index CWT analysis.	Very difficult to compute enire amount for west coast planning or to separate portion attributable to Snohomish chinook	ongoing	WDFW, Tulalip				
	Harvest	Annual planning	Preseason fishery planning	Develop annual abundance predictions. Use these, plus models of mixed-stock fishery effect to develop fishery regulation package consistent with conservation objectives for multiple stocks. Includes Pacific salmon Commission, Pacific Fishery managemenet Council, North of falcon, and local comanager meetings.	100								Chinook, coho, steelhead, chum, pink		underway	Annual planning	Very difficult to compute enire amount for west coast planning or to separate portion attributable to Snohomish chinook	Annual planning	Very difficult to compute enire amount for west coast planning or to separate portion attributable to Snohomish chinook	Annual planning	Very difficult to compute enire amount for west coast planning or to separate portion attributable to Snohomish chinook	ongoing	WDFW, Tulalip				

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Project ID	Plan Category	Plan Catergory Level 2	Project Name	Project Description	Sequence score	Rank	Sequence Rank	Limiting Factors	Reference Document for limiting factor	Habitat Type	Activity Type and Project Performance	Project Performance (restore 30 acres of floodplain)	Primary Species Benefiting	Secondary Species Benefiting	Current Project Status	2013 Activity to be funded	2013 Estimated Budget	2014 Activity to be funded	2014 Estimated Budget	2015 Activity to be funded	2015 Estimated Budget	Likely End Date	Likely Sponsor	Total Cost of Project	Known Funding Secured	Local share or other funding	Source of funds (PSAR, SRFB, other)
	Harvest, Hatchery	Marking	Adipose fin removal	Remove adipose fins from chinook and coho at Tulalip and Wallace River hatcheries before release (note, currently, cost only includes Tulalip)	100								Chinook, coho		underway	Adipose fin removal	$60,000	Adipose fin removal	$60,000	Adipose fin removal	$60,000	ongoing	Tulalip	$180,000			
	Habitat, Hatchery	Monitoring	Assessment of ecological interactions between hatchery and wild fish	Sample estuary habitats to monitor presence, size and growth rates of hatchery and wild fish to assess interactions	100								Chinook, coho, steelhead		underway	Sampling and data analysis	$150,000	Sampling and data analysis	$150,000	Sampling and data analysis	$150,000	ongoing	Tulalip	$450,000			
	Harvest, Hatchery	Marking	Coded-wire tagging	Acquire and apply 200,000 CWTs to chinook and 50,000 CWTs to coho at Tulalip Hatchery and 450,000 CWTs to chinook and 50,000 to coho at Wallace River. (Note. Listed cost only inlcudes Tulalip)	100								Chinook, coho		underway	Tagging	$40,000	Tagging	$40,000	Tagging	$40,000	ongoing	Tulalip	$120,000			
	Harvest, Hatchery	Monitoring	Fishery monitoring	Sample tribal harvest for scales, otoliths, and coded-wire tags to assess hatchery contribution, age distribution, exploitation rates, size of fish caught, etc.	100								Chinook	coho, chum	Underway	Tribal fishery sampling	$60,000	Tribal fishery sampling	$60,000	Tribal fishery sampling	$60,000	ongoing	Tulalip	$180,000			
	Harvest, Hatchery	Monitoring	Recreational fishery monitoring	Sample recreational harvest for coded-wire tags to assess hatchery contribution and exploitation rate s	100								Chinook, coho		Underway	base recreational fishery sampling	[MAY BE ABLE TO GET THIS FROM WDFW]	base recreational fishery sampling	[MAY BE ABLE TO GET THIS FROM WDFW]	base recreational fishery sampling	[MAY BE ABLE TO GET THIS FROM WDFW]		WDFW				
	Harvest, Hatchery	Monitoring	Selective fishery monitoring	Sample selective fisheries in areas B-2 and Skykomish river to estimate harvest and encounters	100								Chinook		Underway	Selective fishery sampling	[WDFW SHOULD BE ABLE TO PROVIDE]	Selective fishery sampling	[WDFW SHOULD BE ABLE TO PROVIDE]	Selective fishery sampling	[WDFW SHOULD BE ABLE TO PROVIDE]		WDFW				
07-NC-025	H-integration	Basin Planning	Develop Steelhead Recovery Plan with NOAA.	Work with NOAA to develop the local input, local site and project selection and prioritization for the Steelhead Recovery Plan.	100			Across all limiting factors.		Recovery planning.			Steelhead	Cutthroat, Chum, Coho, Pink, Bull Trout, Steelhead	Under development	Recovery plan development.	$50,000	N/a	$0	N/a	$0	2010	NOAA with Tulalip Tribes, WDFW, SC, KC	$50,000			
07-MON-01	H-integration	Validation Monitoring	Baseline monitoring of Juvenile Fish Use of Nearshore and Coastal Streams	Continue coordinated monitoring of juvenile fish use of nearshore and coastal streams.	100			Across all limiting factors.		Monitoring - develop monitoring plan.			Chinook	Cutthroat, Chum, Coho, Pink, Bull Trout, Steelhead	Implementation	Implementation	$60,000	Implementation	$60,000	Implementation	$60,000	41274	Tulalip Tribes	$180,000			
07-MON-02	H-integration	Status and Trend Monitoring	Monitoring Fish (Smolt Traps)	Continue coordinated monitoring of fish in the basin, particularly monitoring juvenile fish using the smolt traps on the Skykomish and Snoqualmie Rivers.	100			Across all limiting factors.		Monitoring - develop monitoring plan.			Chinook	Cutthroat, Chum, Coho, Pink, Bull Trout, Steelhead	Implementation	Implementation	$250,000	Implementation	$250,000	Implementation	$250,000	ongoing	Tulalip Tribes	$750,000			
07-MON-03	H-integration	Validation Monitoring	Whidbey Basin Juvenile Salmon Origins	Genetic identification of distribution of stocks using Whidgey Basin reaches.	100																						
07-MON-04	H-integration	Validation Monitoring	Whidbey Basin Nearshore Marine Juvenile Salmonid Distribution	Assessment of distribution of outmigrating fish	100																						
	H-integration	Monitoring	Estimate magnitude and spatial distribution of natural spawning escapement	Assess spawner escapement throughout the system using a combination of foot, boat, and aerial surveys and application of standard methods.	100								Chinook, coho steelhead, chum, pink		underway	Natural escapement surveys and data analysis	[NEED FROM WDFW]	Natural escapement surveys and data analysis	[NEED FROM WDFW]	Natural escapement surveys and data analysis	[NEED FROM WDFW]	ongoing	WDFW				
	H-integration	Monitoring		Assess abundance and timing of juenile outmigrants in the lower Skykomish and Snoqualmie Rivers	100								Chinook, coho, steelhead		underway	Sampling and data analysis	$150,000	Sampling and data analysis	$150,000	Sampling and data analysis	$150,000		Tulalip				
	H-integration	Monitoring	Tulalip Stock Assessment Laboratory	Read otoliths and scales to determine age and origin of fish sampled in fisheries, and escapement	100								Chinook	coho. Chum	Underway, Seeking expansion to CWT reading in 2011	Read scales and otoliths	$25,000	Read scales and otoliths	$75,000	Read scales and otoliths	$75,000	ongoing	Tulalip				

Project ID	Plan Catergory Level 2	Project Name	Project Description	Activity Type and Project Performance	Project Performance (restore 30 acres of floodplain)	Primary Species Benefiting	Secondary Species Benefiting	Current Project Status	2013 Activity to be funded	2013 Estimated Budget
07-HSR-015	Headwaters Secondary Restoration	Anthracite Creek Enhancement and Awareness	Sound Salmon Solutions will partner with the Timberlane Village Homeowner's Association (Timberlane) to complete streambank enhancement along Anthracite Creek on private land in eastern King County. SSS and Timberlane propose to enhance approximately 100 feet of Anthracite Creek on both the left and right banks: 50 feet upstream and downstream of the proposed culvert. Enhancement will include removal of road fill material adjacent to the channel and shaping the banks to match upstream and downstream gradient. In addition, large wood, coir fabric, and/or mulch will be utilized to enhance aquatic habitat and stabilize exposed soils. One volunteer planting event will be organized by SSS staff to plant native trees and shrubs in a 0.1 acre planting area. SSS will also conduct outreach and education aimed at the residents of Timberlane Village to promote long-term stewardship on private property adjacent to Anthracite Creek and the South Fork Skykomish River.		1 fish barrier removed	Steelhead	Cutthroat , Coho , Bull Trout	Design Completed		
07-HRA-029	Headwaters Above Falls and Dam	Wetland Enhancement and Community Outreach – North Bend	Sound Salmon Solutions will partner with the SE 162 St. RMA to enhance aquatic habitat for salmonids in a wetland on private property near North Bend. SSS will complete the following objectives: improve fish passage by assisting with culvert replacement, recruit community volunteers to enhance riparian forests by planting native plants across 1 acre, engage up to 10 families during project implementation, organize one community outreach event to highlight project results, organize one community work day following project completion for vegetation maintenance and monitoring.		1 fish barrier removed 1 acre riparian	Cutthroat	Cutthroat	Feasibility Completed, Design Completed, Permitting Completed		
07-MPR-306	Mainstem-primary restoration	Skykomish Braided Reach Restoration Phase I	Implement a suite of projects (flood fencing, apex jam augmentation, and riparian plantings) to improve salmonid refuge and side channel habitat along the Skykomish River, from Gold Bar to three miles downstream, through the restoration of dysfunctional reach processes, (gravel aggradation and scour, woody debris recruitment, and side channel abandonment).	Activity Type - Instream Habitat: Channel reconfiguration and connectivity (2000 Feet)	3 log jams	Chinook	Cutthroat , Chum , Coho , Pink , Bull Trout , Steelhead	Feasibility Completed, Design Completed, Construction Completed		
07-MPR-307	Mainstem-primary restoration	Skykomish Braided Reach Restoration Phase II	Design and implement a suite of projects, (e.g., wood complexes and flood fences) to increase edge habitat on the mainstem, reconnect side channels, improve riparian conditions and create pools. The selection and design of these projects will be guided by the SRFB funded Braided Reach Restoration Assessment, which identified strategic points in the reach that would serve to reduce intervention impacts while maximizing results. Limiting factors in the Braided Reach include flood and low flows, lack of refuge and rearing habitat, and lack of pool habitat. Rearing and refuge habitat have been diminished due to railroad and highway construction which has reduced overall floodplain area. The proposed projects for this phase consist of: •Wood complexes to provide refuge, create holding pools, and to add complexity and edge habitat. •Flood fencing at selected locations to increase channel roughness and complexity. River processes are neither being changed nor "improved", but used to improve habitat, in much the same way that habitat is altered in natural systems. Rather than relying on large-scale interventions, the approach uses the power of the river to affect habitat creation. In this way, long-term benefits can be realized that build upon the foundations laid down by the proposed projects. One major benefit to increased edge habitat in the reach is an increase in channel length and complexity, all habitat forming factors disturbed by the reduction in floodplain width realized by the construction of the railroad and US Highway 2. 	Activity Type - Instream Habitat: Channel structure - Off-channel habitat (350 Feet), Activity Type - Instream Habitat: Channel structure - Wood structure / log jam (7 Feet)	see above	Chinook	Chum , Coho , Bull Trout , Steelhead , Peregrine Falcon	Feasibility Completed		
07-NR-008	Nearshore restoration	Nearshore Sediment Nourishment Feasibility Study Aong Railroad	This study will identify the most suitable locations along the railroad impounded shoreline (from Pigeon Creek #1 to the unnamed stream west of Japanese Gulch in Mukilteo) for habitat restoration. Physical, biological, and socio-economic criteria will be used to evaluate project options and at least one preliminary project design (30% designs) will be developed. The selected study reach is appropriately scaled to address landscape and ecosystem processes along a stretch of shoreline characterized by the presence of the railroad and to develop site-specific recommendations in the context of drift cell management.			Chinook	Chum , Coho , Pink , Bull Trout , Steelhead , Surf Smelt, Sand Lance	Feasibility Pending, Conceptual		
07-MPR-300	Mainstem-primary restoration	Pilchuck River Assessment and Project Design	Snohomish County is implementing a geomorphic and habitat assessment of the Middle Pilchuck River. The goal of this assessment is to identify processes at the reach level and prioritize in-stream construction projects that have the highest potential for successful rehabilitation of salmonid habitat. Snohomish County has developed a very successful geomorphic assessment technique and begun construction of projects that were prioritized out of this work in several mainstem rivers (Snohomish River Confluence Analysis, 2003; Skykomish River Braided Reach Restoration Assessment, 2005; Sauk River Erosion/Flooding Hazard Management Plan, 2009). We are using a similar protocol in the Pilchuck River that was used in these larger rivers . Combining the results of this assessment with the "Habitat Conditions and Chinook Use" report completed by the Tulalip Tribes (Savery, 2003) will yield a clear strategy for restoration project implementation in the basin.			Chinook	Cutthroat , Chum , Coho , Pink , Bull Trout , Steelhead	Feasibility Pending		
07-RPR-025	Rural Streams-primary restoration	Woods Creek Habitat Conditions Survey	Snohomish County Surface Water Management (SWM) conducted a habitat conditions assessment of the Woods Creek basin. This assessment includes data collection and analysis of riparian and habitat conditions for salmonids. Recommendations in the draft report provide SWM staff and project partners with the information necessary to prioritize next steps for salmon recovery efforts in Woods Creek.			Chum, Chinook, Coho, Bull Trout, Steelhead, Cutthroat, Pink		Feasibility Completed		
07-MPR-190	Mainstem-primary restoration	Tolt River Riparian Restoration and Invasive Removal	Remove non-native species from the riparian area then replant with native conifers, hardwoods, and shrubs. Within the 5-acre work area, all nonnative vegetation will be treated and 2 acres will be planted with native vegetation. Because native vegetation is well established in patches within the work area, revegetation is proposed for approximately 2 of the 5 acres. Community outreach will occur to neighbors and with local schools in addition to volunteer planting events.	Snohomish River Basin Mainstem: Restored Riparian Habitat: Riparian planting (LC) (2 Acres)	2 acres riparian planted	Chinook	Coho , Steelhead	Design Completed		

07-MPR-301	Mainstem-primary restoration	Tolt River Riparian Restoration and Invasive Removal	Seattle City Light (SCL) will partner with Sound Salmon Solutions to remove non-native species and replant 3 acres of riparian habitat with native conifers, hardwoods, and shrubs. The work area is located on portions of SCL property between RM 3.7-4.2 and RM 4.89-5. SCL proposes that within the 3-acre work area all non-native vegetation will be treated annually for 3 years and native vegetation will be planted after 1-2 years of treatment.	Snohomish River Basin Mainstem: Restored Riparian Habitat: Riparian planting (LC) (3 Acres)	3 acres riparian planted	Chinook	Coho , Steelhead	Design Completed		
07-MPR-304	Mainstem-primary restoration	Pilchuck River Riparian Restoration and Fish Habitat Enhancement	Restore riparian forests and enhance salmonid habitat in the Pilchuck River near Lake Stevens. By cooperating with private, agricultural landowners, Snohomish County, and the Snohomish Conservation District, Sound Salmon Solutions will construct large wood structures in the river in areas of accelerated bank erosion, plant native trees to establish buffers, and exclude livestock from buffers.	Snohomish River Basin Mainstem: Large Woody Debris: Placement of new log jams (LC) (3 Each), Snohomish River Basin Mainstem: Restored Riparian Habitat: Riparian planting (LC) (6.5 Acres), Activity Type - Upland Habitat: Agriculture fencing (4,200 Feet)	3 log jams installed 6.5 acres riparian planted 4,200 feet agriculture fencing	Chinook	Cutthroat , Chum, Coho, Pink, Bull Trout, Steelhead	Feasibility Completed, Permitting Completed		
07-MPR-368	Mainstem-primary restoration	Middle Pilchuck Riparian Enhancement	Stabilize and enhance edge habitat using large wood placement. Increase riparian vegetation where it is lacking. Enhance existing riparian cover via understory planting. Control invasive blackberry and replant with native trees and shrubs.	Activity Type - Riparian Habitat: Plant removal / control (x Acres), Activity Type - Riparian Habitat: Planting (x Acres), Snohomish River Basin Mainstem: Restored Edge: Enhancement of existing armoring / levee (LC) (200 Feet), Activity Type - Instream Habitat: Channel structure - Large woody debris	x acres invasives controlled x acres riparian planted 200 feet armoring enhancement	Chinook	Cutthroat, Chum, Coho, Pink, Steelhead	Feasibility Pending		
07-USR-047	Urban Streams restoration	Jones Creek Restoration	Restore 5 acres of riparian and associated wetland habitat along Jones Creek on Marysville School District property.	Activity Type - Riparian Habitat: Planting (5 Acres)	5 acres riparian planted	Coho	Cutthroat , Steelhead	Design Completed		
07-MPR-184	Mainstem-primary restoration	Snoqualmie River Nature's Last Stand Riparian Restoration	Plant 1 acre of native riparian plants.	Activity Type - Riparian Habitat: Planting (1 Acres)	1 acre riparian planted	Chinook	Cutthroat , Coho, Pink, Bull Trout, Steelhead	Design Completed		
07-MPR-207	Mainstem-primary restoration	Oxbow Farm Wetland Enhancement	Enhance wetlands on 1-2 acres.	Snohomish River Basin Mainstem: Restored Riparian Habitat: Riparian planting (LC) (2 Acres)	2 acres riparian planted	Steelhead	Chum, Coho, Steelhead			
07-MPR-220	Mainstem-primary restoration	Herb Co. Farm Riparian Restoration	Improve 0.5 acres of riparian habitat.	Activity Type - Riparian Habitat: Planting (0.5 Acres)	0.5 acres riparian planted			Design Completed		
07-MPR-308	Mainstem-primary restoration	Snoqualmie Riparian Restoration with Salmon-Safe Farms	Stewardship Partners will conduct riparian restoration with agricultural landowners along 2.8 miles of the Snoqualmie River. This will assist farmers in achieving and maintaining Salmon-Safe certification. The restoration projects will establish and maintain riparian habitat along the Snoqualmie River by removing invasive species and planting native vegetation.	Activity Type - Riparian Habitat: Planting (16.70 Acres)	16.7 acres riparian planted	Chinook	Cutthroat , Chum, Coho, Pink, Steelhead			
07-BW-003	Basinwide	Fish Passage Barrier Prioritization (Phase I)	Create an interactive web-based mapping system designed to make prioritizing anthropogenic barriers in WRIA 7 easier and faster for federal, state, and tribal agencies and for local biologist, municipalities, citizen groups and private land owners). Information which may be missing, unclear, or outdated on known culverts crossing waters supporting anadromous fish species in WRIA 7 will be updated as needed and as funding allows.	Web-based mapping of fish barriers	Mapping system developed	Coho	Cutthroat , Chinook, Chum, Bull Trout, Steelhead	Feasibility Pending		
07-BW-007	Basinwide	WRIA 07 Water Type and Assessment Project	Through visual and electrofishing surveys, determine / correct water type classifications in ~45 watersheds in prioritized portions of WRIA 07 using state-sanctioned protocols. Survey watersheds will be prioritized with assistance from a Guidance Team consisting of representatives from the WRIA 07 Tech Committee. WFC will incorporate assessment results in a web-based interactive GIS available to resource managers and the general public. Data will be freely shared, and formats will be compatible with State, County, City, and Tribal datasets.	Web-based water typing	Water types determined / corrected	Chinook				
07-MPR-217	Mainstem-primary restoration	Upper Raging River Protection and Restoration	To protect and restore 7000 acres of instream, riparian, and upland habitat	Activity Type - Acquisition/Easements/Leases : Wetland areas protected (7000 Acres)		Chinook	Cutthroat , Coho, Steelhead	Feasibility Pending		
07-RSR-046	Rural Streams-secondary restoration	Grand Ridge Acquisition	Acquire 75 acres on Canyon Creek in the Patterson Creek sub basin	Activity Type - Acquisition/Easements/Leases : Wetland areas protected (75 Acres)		Steelhead	Cutthroat , Coho	Conceptual		
07-MPR-363	Mainstem-primary restoration	Maloney Creek Restoration Plan	Design and NEPA for construction of a wetland, sediment detention ponds, and instream restoration					Feasibility Pending		

2014 Activity to be funded	2014 Estimated Budget	2015 Activity to be funded	2015 Estimated Budget	Likely End Date	Likely Sponsor	Total Cost of Project	Known Funding Secured	Local share or other funding	Source of funds (PSAR, SRFB, other)
				12/15/2011	Sound Salmon Solutions	$32,800			King Conservation District
				12/30/2012	Sound Salmon Solutions	$41,445			King Conservation District, Sound Salmon Solutions, Landowner
				12/30/2011	Snohomish County of	$300,000			
				12/31/2012	Snohomish County of	$350,000			
				12/31/2012	Snohomish County of, Snohomish County Marine Resources Committee (MRC)	$1,000,000			
				12/31/2012	Snohomish County of	$316,398			
				6/30/2011	Snohomish County of	$33,000			
				9/30/2010	Seattle City Light	$61,521			Seattle City Light, NFWF

				12/31/2012	Seattle City Light	$72,185		$72,185	PSAR (#09-1263), Seattle City Light
				12/31/2013	Sound Salmon Solutions	$240,000	$240,000		PSAR (#07-1714), Sound Salmon Solutions
				12/31/2012	Sound Salmon Solutions	$100,000			
				12/1/2011	Sound Salmon Solutions	$10,000			
				12/31/2007	Stewardship Partners	$25,000			
				12/31/2007	Stewardship Partners	$150,000			
				12/31/2007	Stewardship Partners	$18,000			
				12/31/2013	Stewardship Partners	$319,960	$319,960		SRFB (#07-1646), King Conservation District, Stewardship Partners
				3/31/2012	Wild Fish Conservancy	$104,058	$104,058		Wild Fish Conservancy, King County, Snohomish County, NFWF
				12/31/2014	Wild Fish Conservancy	$109,290	$109,290		SRFB (#08-1563)
				12/31/2012	Cascade Land Conservancy, WA Dept. of Natural Resources , Mountains to Sound Greenway Trust, King County DNRP	$1,900,000			
				12/31/2010	King County DNRP	$2,400,000			
				6/15/2011	Skykomish, Town of				
						$7,583,657			

Project ID	Plan Category	Plan Catergory Level 2	Project Name	Project Description	Limiting Factors	Reference Document for limiting factor	Habitat Type	Activity Type and Project Performance	Project Performance (restore 30 acres of floodplain)	Primary Species Benefiting	Secondary Species Benefiting	Current Project Status	2013 Activity to be funded	2013 Estimated Budget	2014 Activity to be funded	2014 Estimated Budget	2015 Activity to be funded	2015 Estimated Budget	Likely End Date	Likely Sponsor	Total Cost of Project	Known Funding Secured	Local share or other funding	Source of funds (PSAR, SRFB, other)	Reason for Removal
07-MPR-325	Restoration Projects	Mainstem-primary restoration	Coe Clemmons Creek Restoration Phase 2	Install control structures for bank stabalization on Coe Clemmons Creek, a west-flowing tributary of the Snoqualmie River. Improve channel stability and reduce sediment transport to benefit habitat and adjacent slope stability. Reduce downstream drainage impacts while improving stream and wetland habitat and water quality.	Degraded Habitat-Channel Structure and Complexity, Degraded Habitat-Riparian Areas and LWD Recruitment, Degraded Habitat-Stream Substrate		Instream	Activity Type - Riparian Habitat: Planting (2 Acres), Activity Type Upland Habitat: Erosion control structures (2 Each)	2 acres riparian planted 2 structures installed	Coho	Cutthroat	Feasibility Pending							10/31/2011 (completed?)	City of Duvall	$50,000	$50,000		King Conservation District	Per Alana McCoy: project premitted but withdrawn
07-MPR-211	Restoration Projects	Mainstem-primary restoration	Pilchuck River (Russo)	Enhance edge habitat complexity and riparian forests.	Degraded Habitat-Channel Structure and Complexity, Degraded Habitat-Riparian Areas and LWD Recruitment		Riparian, Instream			Chinook	Chum, Coho, Pink, Bull Trout, Steelhead	Feasibility Pending, Design Completed, Permitting Completed							12/31/2012	Sound Salmon Solutions	$75,000			Sound Salmon Solutions, NFWF, Landowner	Per Brian Boehm: emergency repair made design obsolete
07-MPR-214	Restoration Projects	Mainstem-primary restoration	Upper Tychman Slough Restoration	Implement restoration activities on the upper reaches of Tychman Slough. Conceptual designs have been prepared for priority project elements including instream and floodplain wood placement, channel excavation and enhancement, weed control, and riparian planting.	Degraded Habitat-Channel Structure and Complexity, Degraded Habitat-Riparian Areas and LWD Recruitment			Activity Type - Estuarine & Nearshore: Large Wood Placement (80 Each), Activity Type - Upland Habitat: Invasives/ weed control (7 Acres), Snohomish River Basin Mainstem: Restored Riparian Habitat: Riparian planting (LC) (4.50 Acres)	80 wood structures installed 7 acres invasives controlled 4.5 acres riparian planted	Chinook	Cutthroat , Chum, Coho, Pink, Steelhead								12/31/2013	Sound Salmon Solutions					Per Brian Boehm: this is a duplicate project (keep other 07-MPR-214 on list)
07-MPR-316	Non-Capital Projects	Mainstem-primary restoration	City of Sultan Culvert Assessment and Outreach	The proposed project will benefit salmon habitat conservation by forming a creative partnership with the City of Sultan to identify fish habitat barriers located largely within in their jurisdiction. Fish barrier work will address gaps identified by the WRIA-07 Barrier Prioritization Mapping System Project. Work with the City of Sultan will involve this local jurisdiction in culvert assessments and then provide guidance in grant identification and submittal. We are currently seeking funding to: 1) conduct outreach to the City of Sultan personnel and high school students 2) conduct culvert assessments within and near the City of Sultan on potentially fish bearing waters, 3) assess new culverts installed after 2001 in tributary basins (as remaining funding and access allows) and 4) update the WFC database and enter all new data from this project into the WRIA 07 - Barrier Prioritization Mapping System.	Degraded Habitat-Fish Passage		Rivers/Streams/Shoreline	Assessment and outreach	Data collected on culverts / entered into databases	Coho	Chinook, Bull Trout								12/31/2014	Wild Fish Conservancy					Per Mary Lou White: WFC is longer pursuing this project
07-RSR-045	Restoration Projects	Rural Streams-secondary restoration	Riparian Restoration on Farmland - Harris Creek	Livestock exclusion fencing, riparian planting, invasive species removal. Cooperative partnerships with multiple landowners.	Degraded Habitat-Riparian Areas and LWD Recruitment		Riparian	Activity Type - Riparian Habitat: Planting (5.30 Acres)	5.3 acres riparian planted	Coho	Cutthroat , Chinook, Steelhead								3/23/2012	Stewardship Partners	$150,000				Per Deborah Oaks: she does not know where this project was supposed to take place
07-MPR-314	Restoration Projects	Mainstem-primary restoration	French Creek Basin Riparian Enhancement	Ducks Unlimited and NRCS have worked with a number of private landowners to secure conservation easements and complete substantial floodplain restoration on over 1000 acres within the French Creek Watershed of the Snohomish River Basin. DU is currently seeking funds to complement this large scale restoration effort by incorporating ~88 acres of riparian plantings along recently restored main channel and associated floodplain wetland habitat. Proposed riparian	Degraded Habitat-Floodplain Connectivity and Function, Degraded Habitat-Channel Structure and Complexity, Degraded Habitat-Riparian Areas and LWD Recruitment, Degraded Habitat-Water Quality, Degraded Habitat-Stream Flow, Degraded Habitat-Stream Substrate		Riparian	Activity Type - Riparian Habitat: Planting (88 Acres)	88 acres riparian planted	Chinook	Coho, Bull Trout, Steelhead	Feasibility Pending, Design Completed							3/31/2010	Ducks Unlimited - Vancouver	$220,000			DU note in HWS says SRFB funding secured in 2010, but project not listed in PRISM	
07-MPR-315	Restoration Projects	Mainstem-primary restoration	Cherry Valley Stream Restoration	Remeander Cherry Creek through WDFW property and connect with Wild Fish Conservancy (WFC) project to consolidate three floodplain ditches into one naturalized stream. Fill ditches and deeper wetlands that may cause fish entrapment while maintaining drainage to protect adjacent landowners. Install a fish passage structure in the existing channel and establish riparian plantings.	Degraded Habitat-Floodplain Connectivity and Function, Degraded Habitat-Channel Structure and Complexity, Degraded Habitat-Riparian Areas and LWD Recruitment, Degraded Habitat-Water Quality, Degraded Habitat-Stream Flow		Instream, Riparian	Snohomish River Basin Other Sub-basins Restoration: Restored Off-channel Habitat: Winter/Spring off-channel habitat restoration (LC), Snohomish River Basin Other Sub-basins Restoration: Restored Riparian Habitat: Riparian planting (LC) (66 acres)	100 feet channel restored 66 acres riparian planted	Chinook	Coho, Bull Trout, Steelhead, Chum, Bald Eagle	Feasibility Pending							12/31/2012	Ducks Unlimited - Vancouver	$615,000				
07-MPR-323	Restoration Projects	Mainstem-primary restoration	French Creek Basin Feasibility Study, Fish Passage/Restoration	Conduct a feasibility study to determine the extent to which rearing habitat for Chinook can be restored at the mouth of French Creek. Investigate how well tidal flow would alleviate water quality problems and the extent to which tidal wetland restoration would benefit other wildlife. The study will determine where present landowners will allow tidal restoration, the acreage that could possibly be purchased to allow tidal inundation, and the technical feasibility of constructing setback dikes to allow restoration of tidal functions on participating land while fully protecting neighboring land from flooding and infrastructure from damage.	Degraded Habitat-Floodplain Connectivity and Function, Degraded Habitat-Channel Structure and Complexity, Degraded Habitat-Riparian Areas and LWD Recruitment, Degraded Habitat-Water Quality, Degraded Habitat-Stream Flow		Instream, Wetland		Feasibility	Chinook	Coho	Feasibility Pending							12/3/2020	Ducks Unlimited Inc	$10,000,000				
07-ER-033	Acquisition/Restoration (Combination)	Estuary restoration	Ebey Island Feasibility, Acquisition, and Restoration	The purpose of this project is to prepare additional delta acreage for restoration to tidal functions if the Lead Entity's study at the 10-year point of the Salmon Conservation Plan concludes that more restoration is needed than was accomplished during the first 10-years. This project will acquire land from willing sellers in addition to the 1237-acres presently owned by WDFW, and will conduct a feasibility study of how ecological functions can best be restored on WDFW land on Ebey Island south of State Route 2. Presently the island is fully diked, separating vast areas of former tidal wetlands from the estuary. The Snohomish River Basin Salmon Conservation Plan has determined that restoring tidal flow to former wetlands such as this is one of the most important things that can be done to restore salmon in this watershed. There are a number of ways this WDFW site could be used, and a variety of stakeholders are interested in different possibilities including restoring fish habitat, maintaining forest habitat, creating more recreational opportunities, improving habitat for migrating birds, maintaining or improving agriculture, maintaining or improving the integrity of the dike, improving drainage for	Degraded Habitat-Estuarine and Nearshore Marine		Estuary (River Delta)			Chinook	Cutthroat , Chum, Coho, Bull Trout, Steelhead, Bald Eagle	Feasibility Pending							12/31/2012	Washington Department of Fish and Wildlife	$10,000,000				
07-MPR-318 (COMPLETED?)	Restoration Projects	Mainstem-primary restoration	Riley Slough Culvert Replacement Project	Replace one crushed and buried culvert on Riley Slough with a bridge to allow access to the horse pasture across the slough and limit the ability of horses to enter the slough. This project will also include a revegetation effort on the south side of the slough and use exclusion fencing.	Degraded Habitat-Riparian Areas and LWD Recruitment, Degraded Habitat-Fish Passage		Riparian	Activity Type - Fish Passage: Bridge installed (1 Each), Activity Type - Fish Passage: Road-crossing removal (1 Each), Activity Type - Riparian Habitat: Planting (1 Acres)	1 bridge installed 1 culvert removed 1 acre riparian planted	Coho	Chinook, Chum, Steelhead	Feasibility Pending							12/31/2010 (completed?)	Snohomish Conservation District	$50,000				
07-MPR-183	Restoration Projects	Mainstem-primary restoration	People's Creek Riparian	Restore a 1,600 foot section of Peoples Creek, a tributary to the Snoqualmie River, at Hollandia Farm. Replace two partial-barrier culverts with bridges to provide fish passage for resident and anadromous fish and to allow sediment and	Degraded Habitat-Floodplain Connectivity and Function, Degraded Habitat-Channel Structure and Complexity, Degraded Habitat-Riparian		Riparian	Activity Type - Fish Passage: Bridge installed (2 Each), Activity Type - Instream Habitat: Channel reconfiguration and connectivity (200 Feet), Activity Type - Riparian Habitat: Fencing (200 Feet), Activity Type - Riparian Habitat: Plant removal /	2 bridges installed 200 feet channel reconfigured 200 feet fencing installed 1 acre invasives removed	Coho	Cutthroat , Chinook, Chum, Steelhead	Design Completed							12/31/2012	Snohomish Conservation District, Stewardship Partners	$215,000			(HWS says project funded, but source not given)	
07-HSR-014	Non-Capital Projects		Tokul Creek Fish Passage - Phase 2																12/31/2012	Washington Department of Fish and Wildlife (?)					