

Stillaguamish Salmon Recovery 3 Year Work Plan 2013-2015

Prepared by Pat Stevenson/Jason Griffith/Gina Gray
May 1, 2013

I) Context:

Provide a brief overview of the characteristics of your Chinook Salmon Recovery area.¹ Refer to the checklists and other content developed for the 2012 Salmon Recovery Council conference and work with your PSP liaison to summarize this information. These are posted at the website below or available from PSP staff:

http://www.mypugetsound.net/index.php?option=com_docman&task=cat_view&p;gid=584&Itemid=238

The Stillaguamish watershed spans both Snohomish and Skagit counties, and drains 700 square miles of forest, farm, rural and urban lands. The mainstem Stillaguamish empties into Skagit Bay and Port Susan Bay, with the main estuary being Port Susan Bay. Major tributaries include the North Fork and South Fork Stillaguamish, Boulder River, and Pilchuck, Squire, Canyon, and Deer Creeks. The Watershed is home to two populations of listed Chinook, summer and fall. It also supports the other salmon species (Coho, Pink, Chum, and Sockeye), along with summer and winter steelhead, bull trout, and searun cutthroat.

Stillaguamish Watershed can be divided into three general regions: the North Fork, South Fork, and Lower Mainstem. The two forks join in Arlington, 18 river miles from the mouth. Pilchuck, Deer, Boulder, and Canyon Creeks are the four largest tributaries to the Stillaguamish River system. The watershed includes land governed by Snohomish County and Skagit County, the cities of Arlington, Stanwood, and Granite Falls, and the Stillaguamish and Tulalip Tribes. Major land cover within the Stillaguamish Watershed is 48% forest, 30% shrubs and small trees, 14% bare ground and grass and 1.2% impervious (Snohomish County 2006 Land Cover Analysis). Federal, state, and private forest land uses occupy the majority of the watershed. The local climate is typically maritime with cool, wet winters and mild summers.

Describe the process for developing your 3YWP narrative and project/activity list. Who are the stakeholders involved and what are their roles? Are harvest and hatchery managers involved in your planning group or have they had an opportunity to comment or consult on your 3YWP?

The Three Year Work Plan for the Stillaguamish Watershed is drafted each year by the co-lead entities, the Stillaguamish Tribe and Snohomish County. The draft is approved by the guiding stakeholder group, the Stillaguamish Watershed Council (SWC), and its technical subcommittee, the Stillaguamish Technical Advisory Group (TAG). The SWC is made up of key stakeholders including local jurisdictions, state and federal agencies, non-profits, tribes and citizens.

The Three Year Work Plan spreadsheet is organized into Capital and Non-Capital tables. The Capital table is subdivided into the six limiting factors identified in the Stillaguamish Watershed Chinook Recovery Plan¹, with the progress since 2005 towards a particular target listed underneath each factor, along with the amount of the target remaining and the progress and associated cost needed for each target in the next three years. Under these lines are a list of the projects proposed or planned between 2013 and 2015, the anticipated sponsors, and the estimated costs. This list was gathered from Habitat Work Schedule, and correspondence with the watershed stakeholders. Funded projects are in green and projects in need of funding are in yellow. The capital table was organized in this manner to efficiently inform watershed stakeholders which areas are in most need of projects, and what other stakeholders have planned in the next three years under each limiting factor.

The projects listed in the Capital table are not exhaustive of the need, and projects consistent with this work plan but not listed are still considered a priority for funding.

The Non-Capital table is divided into seven categories: Hatchery; Harvest; Habitat Protection; Stewardship; Monitoring and Adaptive Management, Assessments, Data Gaps; Strategic Planning; and Watershed Coordination. Under each of these headers, projects and their lead organizations are listed, along with the anticipated costs for the next three years. This list has been vetted with the watershed stakeholders, including the harvest and hatchery managers. The need for all the projects is listed under the “Additional Funding Needed Next 3 years” column.

Harvest and hatchery managers from the Tulalip and Stillaguamish Tribes have been involved in the development of the Three Year Workplan.

II) Background/Planning/Logic of the Recovery Chapter

- 1. What are the recovery goals for your watershed for Chinook salmon? Include information on both population goals (VSP parameters) and habitat goals.*

The 50 year habitat recovery goals for the Stillaguamish Watershed are specific to the six habitat limiting factors, and are described in detail in the Chinook Recovery Plan. They are based on properly functioning conditions as analyzed by the Ecosystem Diagnosis and Treatment (EDT) model for the Stillaguamish Watershed. In summary they are:

Riparian: Plant, restore, maintain and protect 80% of stream shorelines having a riparian buffer width equal to or greater than one Site Potential Tree Height, or approximately 8,000 acres.

Estuary/Nearshore: Restore, maintain and protect 80% of historic estuarine and nearshore habitat, or approximately 2,020 acres.

1

<http://www.stillaguamish.nsn.us/Publish/Stillaguamish%20Watershed%20Salmon%20Recovery%20Plan%20--%20Jun.pdf>

Large Woody Debris: Maintain 80 pieces (24-inch by 50-foot) of large woody debris per mile on the mainstem Stillaguamish River and tributaries, or approximately an additional 3,700 pieces.

Floodplain: No more than 10% of streambanks in any one reach be hardened, or the removal of 4.1 miles of existing hardened bank (this target only applies to the North and South forks, not to the lower mainstem.)

Sediment: Maintain less than 12% concentrations of fine sediment in spawning areas by treating 124 miles of potentially unstable forest roads and two large, deep-seated landslides.

Hydrology: Maintain a cumulative subbasin total of hydrologically mature forest of 80% of total forest cover, or an additional 35,596 acres.

Several targets and monitorables in the Plan are in the process of being updated during 2013. Specifically the estuary/nearshore targets are being updated based on the work of Brian Collins (UW, unpublished data 2011). The update work, due to be approved by the SWC in 2013, will refine and expand the estuarine restoration targets to reflect our best understanding of what the historic Stillaguamish estuary looked like. The update will list the quantities of the specific estuarine habitat types needed to ensure Chinook recovery over the 50 year life of the Plan. Similarly, the floodplain and sediment targets in the Plan will be updated in 2013 to reflect the latest understanding of the restoration needs of Chinook salmon in the Stillaguamish, and the group is researching a potential new set of targets for wetlands.

The 50 year population goals are also outlined in the Stillaguamish Watershed Chinook Recovery Plan. Adult equilibrium abundance targets are 15,387 for the Fall / South Fork population and 17,795 for the Summer / North Fork population. Additional population targets are outlined in the Stillaguamish Monitoring and Adaptive Management Report².

1. *What is the current strategy to accomplish the recovery goals and what assumption(s) is this strategy based on?*

The Stillaguamish Chinook Recovery Plan outlines a suite of strategies to accomplish the outlined goals. There is a habitat restoration strategy, a harvest management strategy, a hatchery strategy, a habitat protection strategy, a stewardship and education strategy and a monitoring and adaptive management strategy.

The habitat restoration strategy involves achieving each of the targets outlined for the six limiting factors. The Plan was founded on the belief that concurrent progress on each of the six limiting factors is necessary for the recovery of the two Stillaguamish Chinook populations. Therefore, priority subbasins or geographic areas may have been identified for a particular target utilizing the identified objectives, but the targets themselves have not been placed in any order or priority. This is based on the assumption that it is not necessary to complete any one particular target before or after another, that all targets are eventually achievable, and all targets are equally essential to achieve recovery.

² <http://www.stillaguamishwatershed.org/resources/monitoring-and-adaptive-management>

The harvest management strategy involves the continued collection and evaluation of information necessary to monitor and revise the long-term harvest management plan for Stillaguamish Chinook salmon by the co-managers of the resource; Washington State and the Tribes. The co-managers work together each year to develop the plan for Stillaguamish fisheries, taking great care to ensure that management objectives are met for all species, but especially listed species such as Chinook. Harvest management alone cannot rebuild the Stillaguamish Chinook salmon populations, and must work with habitat and hatchery management actions if the watershed is to achieve recovery.

The hatchery strategy involves the maintenance of a Natural Stock Restoration Program for North Fork / Summer Chinook. Adult salmon are captured in August from various points along the North Fork by the Stillaguamish Tribe, bred at the Stillaguamish Tribe's Harvey Creek Hatchery where the eggs are reared to smolts. The smolts are then transported to Washington Department of Fish and Wildlife's Whitehorse Hatchery where they are released. The Stillaguamish Tribe has built an additional hatchery outside Granite Falls on the South Fork of the Stillaguamish for the purpose of a South Fork / Fall Chinook captive brood program. Chinook genetically identified as South Fork / Fall will be raised from smolt to adult and bred at the hatchery. Eventually all Stillaguamish Chinook production may be moved to this new facility.

The EDT model suggests that the hatchery supplementation is preventing further population decline. The hatchery program recognizes that there are two distinct populations of Chinook within the Stillaguamish, a summer population spawning in the North Fork, and a fall population spawning in the South Fork, and genotypes all broodstock before spawning.

Protecting existing habitat is a key component of the Stillaguamish recovery strategy. Each of the municipal jurisdictions within the Stillaguamish Watershed has its own GMA Comprehensive Plan, Critical Areas Regulation, Shoreline Master Program and land use codes. The SWC monitors updates to these regulations and provides comments on any needed additional integration with salmon recovery goals. Project sponsors also propose land acquisitions for highly productive or ecologically important parcels within the watershed. This strategy is based on the assumption that regulations and acquisitions are an effective way of protecting existing habitat.

The Stewardship Education and Outreach strategy involves increasing personal responsibility and stewardship actions among residents of the Stillaguamish Watershed. This is done through utilizing a wide variety of outreach techniques with audiences ranging from whole cities or subbasins to single landowners. The SWC has a Stewardship subcommittee who meets quarterly and organizes stewardship activities in order to leverage resources to the maximum extent. This strategy is based on the assumption that educating the residents of the watershed will result in behavior change and an increased sense of ownership and responsibility for the resource.

The Stillaguamish Watershed also has a monitoring and adaptive management strategy. The Monitoring and Adaptive Management Plan (M&AM) has been maintained by the

co-lead entities since the Chinook Recovery Plan's release in 2005. This M&AM lists targets for habitat restoration, habitat protection, harvest management, hatchery management, harvest management effectiveness, hatchery management effectiveness, and Chinook Plan validation monitoring. The M&AM reports can be found on the Stillaguamish Watershed Council website at www.stillaguamishwatershed.org.

The M&AM is updated each year with activities completed and progress toward listed targets. This allows project sponsors and policy makers to easily identify areas of need. Unfortunately, many of the targets are not on track to achieve the 10 year goals. In order to adaptively manage, some require policy changes that are outside the scope of the watershed. The success of the M&AM relies on the attention and action of agencies and policy makers.

2. *What new knowledge or information has changed your strategy, assumptions or hypotheses since your recovery chapter was written?*

Habitat Restoration: As stated, the targets for habitat restoration are in the process of being updated to reflect current science, policy and lessons learned since the release of the Chinook Recovery Plan. Additionally, new efforts are underway to communicate the goals of Stillaguamish Chinook recovery efforts with the agricultural community. The Snohomish Sustainable Lands Strategy (SLS) was launched in 2010, and co-sponsored by Snohomish County, state agencies and the Tulalip and Stillaguamish Tribes. The goal of the initiative is to accommodate both habitat restoration goals and protection of agricultural resource lands. Now in its third phase, Reach Scale Plans are being developed that will outline agreed upon actions that seek to achieve net gain for both farms and Chinook salmon. When complete, this plan will outline restoration projects from the WRIA 5 Chinook Recovery Plan and potential restoration opportunities identified by stakeholders and result in a set of agreed upon actions. The completed Plan will be used to gain streamlined permitting approval and as leverage to increase funding for projects within the identified reach. Additionally, as a result of the broad stakeholder process fewer project appeals are expected, thus reducing the time for projects to be completed.

Harvest Management: There have been no changes to the strategy or assumptions for harvest management. Post season assessment of annual harvest rates indicate that management objectives for the populations are being met consistently (Exploitation rate <25%). Run sizes continue to decline for naturally produced Chinook, even under this minimal harvest scenario. Harvest management alone will not recover Stillaguamish Chinook, and this strategy must integrate with habitat restoration and hatchery management actions.

Hatchery Management: Though the Stillaguamish contains two genetically distinct populations of Chinook, genetic research has concluded that the two populations often exist in the same time and space as one another. It was once assumed that all Chinook found in the North Fork Stillaguamish returning home in the summer months were "summer", and all Chinook found in the South Fork returning home in the fall months were "fall". Recently the co-managers have discovered that fall Chinook can be found in

the North Fork in the summer months, and that more fall Chinook spawn in the North Fork than in the South Fork. Conversely, approximately half of the fish that spawn in the South Fork are summer Chinook. Due to the significant overlap in time and space for the two populations, the hatchery has committed to genotyping all broodstock before spawning to ensure that the populations are kept separate.

Habitat Protection: Habitat protection through regulation and enforcement continues to be discussed actively both regionally and locally. The Puget Sound Partnership Action Agenda 2012 states as sub-strategy A1.3 the need to “improve, strengthen, and streamline implementation and enforcement of laws, plans, regulations, and permits consistent with protection and recovery targets.”³ The Puget Sound Salmon Recovery Council has developed a Regulatory Subcommittee charged with implementing Near-Term Action 1.3.1, to identify regulatory processes that need to be changed. Locally, the Stillaguamish Tribe is currently undergoing a study to determine whether regulations are effectively protecting habitat. The study is scheduled to be completed in 2015. Since the release of the Recovery Plan, Snohomish County, Arlington and Granite Falls have all updated either their Critical Areas Regulation or their SMP (in the case of Snohomish County, both.) These updates have been an improvement over older versions. In fact, a Snohomish County study evaluating the effectiveness of the County’s Critical Areas Regulations⁴ suggests there is a low level of continued, unpermitted habitat loss, but the level is below that which would trigger adaptive management (trigger set by Snohomish County). It should be pointed out that the study did not include lands used for or designated as agriculture. Stillaguamish Watershed partners look forward to the WDFW land cover analysis data to determine definitively if habitat loss has or has not occurred since the plan’s release in 2005.

Stewardship: The strategy and assumptions behind the Stewardship efforts have not changed, but rather strengthened. The Stewardship Subcommittee of the SWC is partnering in new ways, developing projects that cross jurisdictions and address not only Chinook recovery but water quality issues as well.

M&AM: The M&AM report has been a successful and useful tool for the Stillaguamish Watershed since 2005. There have been no changes in the strategy or assumptions behind this report.

3. How is the sequencing and timing of actions or projects done in such a way as to implement the strategy as effectively as possible?

There is no established priority for sequencing of projects. Currently, all targets are prioritized equally; therefore projects addressing any of the six limiting factors are considered a priority for funding. The Stillaguamish Watershed has typically been receiving less than 25% of the funding necessary to achieve the 10 year targets. Projects are completed as the opportunity arises and the funding is available.

³ Puget Sound Partnership Action Agenda, 2012, pg. 44

⁴ Snohomish County Public Works Surface Water Management, Critical Areas and Shorelines Monitoring Status Report, March 2012

III) Plan and Gaps

1. *What are the obstacles or barriers for implementing monitoring and adaptive management? Where could you use support for development of your M&AM plans?*

The Stillaguamish Watershed has been successfully implementing a Monitoring and Adaptive Management Plan since 2005. Targets and triggers for adaptive management have been identified for each limiting factor, and the report is updated annually. However, the watershed sees the value in having a region wide monitoring and adaptive management plan in a consistent format, and has plans to translate the current M&AM into the new RITT format. Existing resources are limited, especially with the continued decrease in Lead Entity funding; therefore, staffing this effort will be an obstacle. Puget Sound Partnership has \$40,000 designated for the WRIA 5 M&AM; however, supplemental funds will be needed to ensure the project is completed in 2013.

The Stillaguamish Watershed has been outlining barriers to success and needed support in M&AM reports and Three Year Work Plans since 2005. Many of the barriers identified remain the same from year to year. Though the stakeholders of WRIA 5 see the value in developing a new, region wide M&AM, they remain unconvinced that the development of a new report will result in these barriers being addressed. This skepticism is resulting in a reluctance to fully participate or invest in the process. The most critical support the Partnership can provide is to ensure these M&AM plans result in political action for true and lasting change.

2. *Considering all actions affecting salmon recovery in the watershed, is the Chinook salmon resource likely to be closer to, or further from, the recovery goals ten years from now as it is today?*

There are significant barriers to the success of the Chinook Recovery Plan, many of which are shared with other watersheds. Funding, enforcement of fishing and environmental regulations, permitting, political will, and monitoring and adaptive management were identified regionally by the Puget Sound Partnership Recovery Council as barriers to Chinook recovery. These are similar to what we struggle within the Stillaguamish, with funding and enforcement being particularly troublesome. Regional solutions addressing these barriers will be needed if salmon recovery is to be successful.

Restoring floodplain and hydrologic function is essential to recovering Chinook salmon in the Stillaguamish basin and are primary examples of the need to develop regional protection guidelines for actions beyond the scope of an individual watershed. Actions are needed to reduce increasing winter peak flows as well as to help increase summer low flows. Most years since monitoring began in 2005 have shown more bank armoring added than is removed (see the 2011 Monitoring and Adaptive Management Report.) Though some progress has been made to reconnect the Stillaguamish to its estuary and floodplain, we are not on track to meet our 50 year targets. Bank armoring and

floodplain developments have to be addressed as impediments to recovering Stillaguamish Chinook salmon.

The goals outlined in the WRIA 5 Chinook Recovery Plan were based on an assumption that no further degradation would take place, however it isn't clear whether this was a valid assumption. As stated earlier, the Snohomish County Critical Areas Regulation Effectiveness Monitoring Study suggests there is a low level of continued, unpermitted habitat loss, but the loss is below the county's trigger for adaptive management. It is unknown if this unpermitted loss is also occurring on agricultural lands as they were excluded from the study.

Funding continues to be a challenge as the watershed is typically funded at less than 25% of the need identified in the 3 Year Work Plan. This challenge has two parts; the first is a general limitation of funds and organizational capacity to do projects. Many watershed stakeholders are currently performing at their organizational capacity, and are incapable of taking on additional projects despite the need for recovery. The second is the structure of the funds currently available. Match requirements for grants continues to limit the participation of stakeholders in recovery efforts. Chinook projects are large and expensive, and the associated match needed to secure funding is often a barrier to smaller organizations. Even for larger organizations, grant reporting is complicated by match reporting, needlessly delaying projects and increasing administration costs. Not only this, but staple grants, such as the Salmon Recovery Funding, do not fully cover staff time or indirect costs. This can be problematic for Not for Profit organizations that are suffering a decrease in donations from the public with the downturned economy. These donations would typically bridge the funding gap and allow these types of organizations to perform larger salmon recovery projects.

Often underappreciated by funders, outreach efforts continue to be a necessary component of Chinook recovery. Real and lasting change can only stem from a dramatic change in political will, which stems from the opinions and priorities of the voters. With the continued emphasis on "shovel ready" capital projects, outreach projects are left underfunded. With the founding of the Puget Sound Partnership, WRIA 5 watershed partners and the Stillaguamish Watershed Council hoped this new agency, not beholden to any other and reporting directly to the Governor, would be able to transcend agency politics and become a true advocate for the Puget Sound ecosystem. We were hoping that the Partnership would align the efforts of local and state jurisdictions, eliminating common barriers to recovery and streamlining recovery efforts that were consistent with Action Agenda strategies. The Partnership is a logical entity to act on these identified barriers and advance Chinook Salmon Recovery.

It is unclear if the Stillaguamish Chinook salmon resource will be closer or further away from the recovery goals than it is today in ten years. Based on trends in freshwater conditions, we might expect that the resource would be in worse shape. However, as marine rates are at historic lows currently, there may be significant improvement in ocean conditions that could offset any continued loss of freshwater habitat.

	Units	10 Year Goal	Progress since 2005	10-Year Goal Remainin g	Three Year Funding Needed to achieve Ten Year Target
Capital Needs for the Next Three Years					
Riparian	Acres	400	423.92	-23.92	\$0
Estuary/ Nearshore	Acres	315	150	165	\$4,442,625
Large Wood		51	13	38	\$3,135,000
Floodplain	Acres	30	22.3	7.7	\$974,050
	Miles Armoring removed	4.1	0.24	3.86	\$1,317,113
Sediment	Major Landslide Treatments	2	1	1	\$2,475,000
Acquisition	Acres	1445	694	751	\$9,500,150
Total Capital (3 Year)					\$21,843,938
Non Capital Needs for the Next Three Years					
Hatchery	program				\$383,400
Harvest	program				\$0
Protection	program				\$1,250,000
Stewardship	program				\$1,517,005
M&AM	program				\$2,694,925
Strategic Planning	program				\$54,750
Watershed Coordination	program				\$0
Total Non-Capital (3 Year)					\$5,900,080
Grant Total					\$27,744,018

Three-Year Stillaguamish Salmon Recovery Work Plan: 2013 - 2015

Capital Projects from Plan
 Funded 2005-date
 Proposed/Pending Funding

Numbers in [] indicate amount of progress that is anticipated by 2013.
 Question marks means projects may not realize goal by 2013

Capital projects and programs

Project Type/Name	Units	Quantity	Sponsor	Project/Program Status	Cost/Unit	Total Cost	Next 3 Year Need to Meet 10-Year Targets	2013	2014	2015
Riparian	Acres planted (In priority areas)	400	Many	10 year Goal	\$9,257	\$3,702,600	\$0.00	\$0	\$0	\$0
Progress between 2005 and 2012	acres	423.92								
Total 10 year Target Amount Remaining	Acres	[23.92]				\$0.00				
Progress Needed in 2013-2015	acres	0					\$0.00	\$0	\$0	\$0
Completed since 2005 or Planned for 2013-2015:										
Riparian Inmate Crew			Stillaguamish Tribe	Ongoing - Funded through 2014			\$250,000	\$125,000	\$125,000	
Miller and Pilchuck TMDL Improvement			SCD	Partially Funded (need 60K), ongoing			\$100,000	\$33,333	\$33,333	\$33,333
CREP riparian projects			SCD	Funded, ongoing			\$86,000	\$28,667	\$28,667	\$28,667
Church Creek Riparian Restoration			SCD	Funded, ongoing			\$200,000	\$66,667	\$66,667	\$66,667
Stillaguamish CO2/O2 Pilot			WFC	Proposed			\$114,000	\$38,000	\$38,000	\$38,000

Capital projects and programs

Project Type/Name	Units	Quantity	Sponsor	Project/Program Status	Cost/Unit	Total Cost	Next 3 Year Need to Meet 10-Year Targets	2013	2014	2015
Estuary	Acres tidal marsh restored	195	TNC, Tribes, WDFW, Counties	10 year Goal	\$25,300	\$4,933,500	\$3,700,125	\$1,233,375	\$1,233,375	\$1,233,375
	Acres tidal marsh created	120	TNC, Tribes, WDFW, Counties	10 year Goal	\$8,250	\$990,000	\$742,500	\$247,500	\$247,500	\$247,500
Progress between 2005 and 2012	acres	150								
Total 10 year Target Amount Remaining	Acres	165				\$4,174,500				
Progress Needed in 2013-2015	acres	165					\$4,174,500.00	\$1,391,500	\$1,391,500	\$1,391,500
Completed since 2005 or Planned for 2013-2015:										
Leque Island Restoration	Acres	?	DU/WDFW	Pending			\$2,000,000	\$666,667	\$666,667	\$666,667
South Pass Acquisition and Restoration (Matterand)	Acres	83	Stillaguamish Tribe	Ongoing, partially funded			\$400,000	\$133,333.33	\$133,333.33	\$133,333.33
Ellingsen Acquisition and Restoration	Acres	[90]	Stillaguamish Tribe	Proposed			\$1,000,000	\$333,333	\$333,333	\$333,333

Capital projects and programs

Project Type/Name	Units	Quantity	Sponsor	Project/Program Status	Cost/Unit	Total Cost	Next 3 Year Need to Meet 10-Year Targets	2013	2014	2015
Large Wood	Large river ELJs	51	Stillaguamish Tribe, Snohomish County, Sno. Cons. District	10 year Goal	\$82,500	\$4,207,500	\$3,135,000	\$1,045,000	\$1,045,000	\$1,045,000
Progress between 2005 and 2012	Large river ELJs	13								
Total 10 year Target Amount Remaining	Large river ELJs	38				\$3,135,000				
Progress Needed in 2013-2015	Large river ELJs	38					\$3,135,000	\$1,045,000	\$1,045,000	\$1,045,000
Completed since 2005 or Planned for 2013-2015:										
North Fork ELJs	Large river ELJs		Stillaguamish Tribe	Ongoing/Partially funded						
South Fork ELJ's	Large river ELJs		SnoCo	Ongoing						
Pilchuck Creek Woody Material Design	Large river ELJs		SnoCo	Ongoing						
South Fork ELJ's Phase II	Large river ELJs		SnoCo	Ongoing						
South Fork ELJ's Phase III	Large river ELJs		SnoCo	Planned						
Pilchuck Creek Woody Material Construction	Large river ELJs		SnoCo	Planned						
Jim Creek ELJ Design and Construction	Large river ELJs		SSS	Ongoing						

Capital projects and programs

Project Type/Name	Units	Quantity	Sponsor	Project/Program Status	Cost/Unit	Total Cost	Next 3 Year Need to Meet 10-Year Targets	2013	2014	2015
Floodplain	Miles armoring removed	4.1	Various	10 year Goal	\$341,000	\$1,398,100	\$1,317,112.50	\$439,038	\$439,038	\$439,038
Progress between 2005 and 2012	Miles	0.24								
Total 10 year Target Amount Remaining	Miles	3.86				\$1,317,113				
Progress Needed in 2013-2015	Miles	3.86					\$1,317,113	\$439,038	\$439,038	\$439,038
Completed since 2005 or Planned for 2013-2015:										
Jim Creek Restoration Design	Miles Removed		SSS	Ongoing						
Chatham Acres Armoring Removal	Miles Removed	[0.1]	SnoCo	Complete						
	Acres restored	30	Various	10 year Goal	\$126,500	\$3,795,000	\$974,050	\$324,683	\$324,683	\$324,683
Progress between 2005 and 2012	Acres	22.3								
Total 10 year Target Amount Remaining	Acres	7.7				\$974,050.00				
Progress Needed in 2013-2015	Acres	7.7					\$974,050	\$324,683	\$324,683	\$324,683
Completed since 2005 or Planned for 2013-2015:										
North Meander	Acres restored	6.3	SnoCo	Complete						
Blue Slough Phases II-III	Acres restored	3.5	Stillaguamish Tribe	Complete						
Hazel Sidechannel (formed by Hazel ELJs)	Acres restored	0.4	Stillaguamish Tribe	Complete						
South Meander- Final Design	Acres restored		SnoCo	Planned			\$165,000	\$55,000	\$55,000	\$55,000
South Slough Feasibility and Design	Acres restored		SnoCo/Arlington/Tribe	Planned			\$200,000	\$66,667	\$66,667	\$66,667

Capital projects and programs

Project Type/Name	Units	Quantity	Sponsor	Project/Program Status	Cost/Unit	Total Cost	Next 3 Year Need to Meet 10-Year Targets	2013	2014	2015
Sediment	Landslide treatments	2	Stillaguamish Tribe	10 year Goal	\$2,475,000	\$4,950,000	\$2,475,000	\$825,000	\$825,000	\$825,000
Progress between 2005 and 2011	Acres	1								
Total 10 year Target Amount Remaining	Acres	1				\$2,475,000				
Progress Needed in 2012-2014	Acres	1					\$2,475,000	\$825,000	\$825,000	\$825,000
Completed since 2005 or Planned for 2013-2015:										
Steelhead Haven Slide Remediation	Landslide treatments	1	Stillaguamish Tribe	Complete						
Gold Basin Feasibility and Design	Landslide treatments	[1]	Stillaguamish Tribe- USFS	Complete						
Gold Basin Implementation	Landslide treatments	[1]	Stillaguamish Tribe- USFS	Proposed			\$1,500,000	\$500,000	\$500,000	\$500,000
	Forest Road Treatments	106	USFS, WADNR, Tribes	10 year Goal	\$44,000	\$4,664,000	\$4,664,000	\$1,554,667	\$1,554,667	\$1,554,667
Progress between 2005 and 2011	Acres	0								
Total 10 year Target Amount Remaining	Acres	106				\$4,664,000				
Progress Needed in 2012-2014	Acres	106					\$4,664,000	\$1,554,667	\$1,554,667	\$1,554,667
Completed since 2005 or Planned for 2013-2015:										
Segelson Road Treatments	Road Treatments	?	Snohomish Conservation District	Complete, staff changes made for reporting problems						
Deer Creek Headwaters Erosion Control	Road Treatments	?	Snohomish Conservation District	Complete, staff changes made for reporting problems						
Higgins Instream	Sediment Stored	?	Stillaguamish Tribe- USFS	Complete, monitoring data incomplete						
Canyon Creek Roads Phase I&II	Road Treatments	21.6	Stillaguamish Tribe-USFS	Phase I Funded, Phase II still needed						
Forest Road Storage	Road Treatments		USFS	Planned			\$300,000	\$100,000	\$100,000	\$100,000

Capital projects and programs

Project Type/Name	Units	Quantity	Sponsor	Project/Program Status	Cost/Unit	Total Cost	Next 3 Year Need to Meet 10-Year Targets	2013	2014	2015
Protection/Acquisition	Acres acquired in Priority Reaches (Floodplain, Riparian, Large Wood, Estuary)	1445	Tribes, CLC, WCLT, TNC	10 year Goal	\$12,650	\$18,279,250	\$9,500,150	\$3,166,717	\$3,166,717	\$3,166,717
Progress between 2005 and 2011	Acres	694								
Total 10 year Target Amount Remaining	Acres	751				\$9,500,150				
Progress Needed in 2012-2014	Acres	751					\$9,500,150	\$3,166,717	\$3,166,717	\$3,166,717
Completed since 2005 or Planned for 2013-2015:										
Arney Acquisition/Restoration	fee simple	19.35	Forterra/Stillaguamish Tribe	Funded, Closed, restoration ongoing						
Graafstra Floodplain Pilchuck Wetland/Floodplain	fee simple	137	City of Arlington Stillaguamish Tribe	Funded, Restoration ongoing						
Fish Creek Buffalo Farm Grandy Lake C-Post PTF Hazel Hole Conservation	fee simple	56	Stillaguamish Tribe	Funded, applying for funds to restore						
French-Segelson Acquisition/Restoration	Easement	80	Forterra	Complete						
Klein Farm Acquisition	Easement	26	DNR	Complete						
Noble Acquisition ARO (Tree Farm Hole) Acquisition	fee simple	103	Forterra	Complete						
	fee simple	60	Stillaguamish Tribe	Funded, Restoration ongoing						
	fee simple	[137]	Stillaguamish Tribe	Conservation easement funded, will hopefully close fee simple 2014						
	fee simple	136	Tribe	Funded, Restoration ongoing						

Capital projects and programs

Project Type/Name	Units	Quantity	Sponsor	Project/Program Status	Cost/Unit	Total Cost	Next 3 Year Need to Meet 10-Year Targets	2013	2014	2015
Rengen Acquisition	fee simple	[210]	Tribe/Forterra	Proposed			\$4,000,000	\$1,333,333.33	\$1,333,333	\$1,333,333
Gardner Acquisition	fee simple	[3]	Tribe	Proposed			\$150,000	\$50,000.00	\$50,000	\$50,000
Sierra Pacific Upper NF Timberland Acquisition	fee simple	[1000]	Tribe/Forterra	Proposed			\$1,000,000	\$333,333.33	\$333,333	\$333,333
Faber Farm Floodplain Deer Creek Timberland Acquisition	fee simple	[150]	City of Arlington/Forterra	Proposed			\$1,000,000	\$333,333.33	\$333,333	\$333,333
	fee simple	[1000]	Tribe/Forterra	Proposed			\$1,000,000	\$333,333.33	\$333,333	\$333,333
					Total capital need	\$46,919,950	\$26,507,938	\$8,835,979	\$8,835,979	\$8,835,979

Non Capital Projects											
Category/Name	Units	Quantity	Likely Sponsor	Project/Program Status/Background	Total 3 Year Cost	Estimated Existing Funds	Additional Funding Needed Next 3 years	Total Cost: 2013	2014	2015	
Hatchery											
1	NF Integrated Recovery	# of smolts	220,000	Stillaguamish Tribe and WDFW	Ongoing	\$ 719,400	\$ 498,000	\$ 221,400	\$ 239,800	\$ 239,800	\$ 239,800
2	SF Integrated Recovery	# of smolts	100,000 to 150,000 smolts	Stillaguamish Tribe and WDFW	ongoing	\$ 462,000	\$ 300,000	\$ 162,000	\$ 154,000	\$ 154,000	\$ 154,000
							Subtotal	\$ 383,400			
Harvest											
3	Spawning ground Surveys	Program	Program	Stillaguamish Tribe, WDFW	Ongoing	\$ 211,200	\$ 211,200	\$ -	\$ 70,400	\$ 70,400	\$ 70,400
4	Reassessment of Recovery Exploitation Rate (RER) for SF	Project	Possibly revised harvest management guideline for NF and SF populations	Tulalip and Stillaguamish Tribes, WDFW	Cannot start until SF hatchery is up and running	\$ -		\$ -	\$ -	\$ -	\$ -
5	Monitoring/Managing Fisheries to keep exploitation rates below acceptable levels	Program	program	Tulalip and Stillaguamish Tribes, WDFW, NOAA fisheries	ongoing	\$ 720,000	\$ 720,000	\$ -	\$ 240,000	\$ 240,000	\$ 240,000
							Subtotal	\$ -			
Habitat Protection Actions											
6	Purchase of Water Rights	cfs/gpm	50	Tribe/CLC/Washington Water Trust/Wild Fish Conservancy	Concept	\$ 1,250,000	?	\$ 1,250,000	\$ 416,667	\$ 416,667	\$ 416,667
7	Lower South Fork/Priority Basin Water Typing			Wild Fish Conservancy	Funded in 2012	\$ 94,843	?	\$ -	\$ 31,614	\$ 31,614	\$ 31,614
8	Revision of ACOE Dike Maintenance Strategy to better protect stream functions			ACOE, NOAA, PSP	Not Started; Riparian veg is mowed on a regular schedule, increasing temperatures and degrading habitat	?	?	?	?	?	?
9	Change needed in Shoreline and Hydraulic code to better protect stream functions. Remove harmful exemptions, including federal.			WDFW, NOAA	Not Started; Increase of 2250' of hardened bank since 2005	?	?	?	?	?	?
10	Evaluation of CAR			WDFW, PSP, SnoCo	Recent SnoCo analysis indicates loss of habitat, but less than trigger that they set. Tribe reviewing CAR	?	?	?	?	?	?

1 of 6

Stillaguamish 3-Year Work Plan, Non-Capital

	Category/Name	Units	Quantity	Likely Sponsor	Project/Program Status/Background	Total 3 Year Cost	Estimated Existing Funds	Additional Funding Needed Next 3 years	Total Cost: 2013	2014	2015
11	Track implementation of new CMZ development rules (2007)			SnoCo	Standards and studies required	?	?	?	?	?	?
12	Move from complaint driven to active enforcement of all regulations protecting fish and wildlife habitat/ real enforcement of existing regulations. Strengthen Enforcement.			All state, federal, and local agencies, PSP coordinating	Substantive enforcement is lacking, often pays to break rather than follow laws	?	?	?	?	?	?
13	LID requirements needed for all new development/re-development			WADOE, PSP, SnoCo, NOAA	Streams draining urban areas (Portage, Church, etc.) showing signs of stormwater impacts during rains	?	?	?	?	?	?
14	Strengthen Forest Practice Regulations to achieve hydrologic mature forest in all subbasins, and limit road building on unstable geology			WADNR	NF hydrograph continues to show trend of increasing peak flows	?	?	?	?	?	?
15	More work needed to streamline permits (esp. Sect. 106 review) for all restoration projects			All state, federal, and local agencies, PSP coordinating	Projects delayed due to current permit environment	?	?	?	?	?	?
16	Regulatory (SMP?) changes needed to prevent toxics from entering fresh and marine waters			WADOE	Work from more highly urbanized watersheds is showing that chemicals in stormwater are causing sub-lethal effects in salmonids	?	?	?	?	?	?

Subtotal \$ 1,250,000

Stewardship											
--------------------	--	--	--	--	--	--	--	--	--	--	--

17	Stillaguamish Stewardship Sub-committee for Salmon Recovery	Develop and implement plan, objectives, & deliverables for stewardship activities in the Stillaguamish	TBD	County, Stillaguamish Tribe, USFS, WDFW, Sno. Cons. District, Beach Watchers, TNC, City of Arlington,	Ongoing	\$ 472,500	\$ 75,000	\$ 397,500	\$ 157,500	\$ 157,500	\$ 157,500
18	Stillaguamish Watershed Stewards Volunteer Program	Program	TBD	USFS, SSS	Discussions w/ partners and others with similar programs, Title II RAC grant proposal	\$ 94,500	\$ 25,000	\$ 69,500	\$ 31,500	\$ 31,500	\$ 31,500

	Category/Name	Units	Quantity	Likely Sponsor	Project/Program Status/Background	Total 3 Year Cost	Estimated Existing Funds	Additional Funding Needed Next 3 years	Total Cost: 2013	2014	2015
19	Restoration Education for Young Stewards	Program	TBD	SSS	Ongoing	\$ 35,280	\$ 3,600	\$ 31,680	\$ 11,760	\$ 11,760	\$ 11,760
20	Stilly Stewardship media campaign	Monthly Newspaper ads, website development, newsletter production	2, Website, Newsletter	Stillaguamish Tribe	Expanded component of ongoing stewardship program	\$ 94,500	\$ 15,000	\$ 79,500	\$ 31,500	\$ 31,500	\$ 31,500
21	Construction site visitation and Education shared FTE with Stanwood, Arlington, Granite fall, Darrington, Snohomish County	Program	1 FTE	SnoCo. and Arlington	Discussion	\$ 168,000	\$ -	\$ 168,000	\$ 56,000	\$ 56,000	\$ 56,000
22	Stillaguamish Watershed Steward	Program	TBD	Snohomish County	Ongoing	\$ 126,000	\$ 120,000	\$ 6,000	\$ 42,000	\$ 42,000	\$ 42,000
23	Sound Stewards Program	Program	TBD	People for Puget Sound, Snohomish County Marine Resources Committee	Ongoing	\$ 12,600	\$ 4,000	\$ 8,600	\$ 4,200	\$ 4,200	\$ 4,200
24	Salmon Watch Program & Pond Watch Program to engage citizens in salmon recovery and water quality	Participants/year, Volunteer hrs./yr.	40, 500	Snohomish County	Discontinued	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
25	Adult Education Programs - educator and homeowner workshops	Number of Site Visits Number of Participants Contact Hours	15, 800, 450	Snohomish County	Ongoing	\$ 34,650	\$ 33,000	\$ 1,650	\$ 11,550	\$ 11,550	\$ 11,550
26	Youth & Parent Education Programs - Classroom & field presentations requested by teachers	Number of Site Visits Number of Participants Contact Hours	16, 800, 450	Snohomish County	Ongoing	\$ 34,650	\$ 33,000	\$ 1,650	\$ 11,550	\$ 11,550	\$ 11,550
27	Volunteer Mussel Survey/Analysis Program to identify pollutant concentration in marine waters	# of Volunteers Mussels Surveyed	TBD	Snohomish County Marine Resources Committee, NOAA, Stillaguamish Tribe	Ongoing	\$ 15,750	\$ 15,000	\$ 750	\$ 5,250	\$ 5,250	\$ 5,250
28	Forestry Stewardship Education Program	Program	TBD	WSU Extension/SWM	Ongoing	\$ 210,000	\$ 149,000	\$ 61,000	\$ 70,000	\$ 70,000	\$ 70,000
29	Stillaguamish Festival of the River	events, people attending, groups participating	1 5000 30	Stillaguamish Tribe	ongoing	\$ 630,000	\$ 540,000	\$ 90,000	\$ 210,000	\$ 210,000	\$ 210,000
30	Salmon life history programs for youth	Classroom visits or tours, participants	15, 650	Stillaguamish Tribe	ongoing	\$ 47,250	\$ 39,000	\$ 8,250	\$ 15,750	\$ 15,750	\$ 15,750

	Category/Name	Units	Quantity	Likely Sponsor	Project/Program Status/Background	Total 3 Year Cost	Estimated Existing Funds	Additional Funding Needed Next 3 years	Total Cost: 2013	2014	2015
31	Technical service & outreach activities	hours	510	Stillaguamish Tribe	ongoing	\$ 80,325	\$ 67,500	\$ 12,825	\$ 26,775	\$ 26,775	\$ 26,775
32	Stilly Sub-basin TMDL Farm planning and education	site visits, farm plans, info sent, workshops	12,6, 620, 1	Snohomish Conservation District	in progress	\$ 92,400	\$ 88,000	\$ 4,400	\$ 30,800	\$ 30,800	\$ 30,800
33	CWD Farm planning and technical assistance	contacts, farm plans	540, 36	Snohomish Conservation District	ongoing	\$ 447,300	\$ 426,000	\$ 21,300	\$ 149,100	\$ 149,100	\$ 149,100
34	Conservation District stream and riparian restoration program	Program	TBD	Snohomish Conservation District	ongoing	\$ 189,000	\$ 24,000	\$ 165,000	\$ 63,000	\$ 63,000	\$ 63,000
35	SWM education and stewardship program	Program	TBD	Snohomish Conservation District	ongoing	\$ 121,275	\$ 115,500	\$ 5,775	\$ 40,425	\$ 40,425	\$ 40,425
36	PDS permitting response & farm planning	contacts, farm plans updated	150, 15	Snohomish Conservation District	ongoing	\$ 118,125	\$ 112,500	\$ 5,625	\$ 39,375	\$ 39,375	\$ 39,375
37	NPDES response to solid waste referrals	Program	TBD	Snohomish Conservation District	projected	\$ 189,000	\$ -	\$ 189,000	\$ 63,000	\$ 63,000	\$ 63,000
38	LID/ stormwater program	Program	TBD	Snohomish Conservation District	projected	\$ 189,000	\$ -	\$ 189,000	\$ 63,000	\$ 63,000	\$ 63,000
Subtotal								\$ 1,517,005			
Monitoring, Adaptive Management, Assessments, Data Gaps											
39	NPDES implementation			City of Arlington	Partially funded, ongoing	\$ 200,000	\$ 50,000	\$ 150,000	\$ 66,667	\$ 66,667	\$ 66,667
40	South Fork Habitat			USFS	Concept	\$ 150,000	\$ -	\$ 150,000	\$ 50,000	\$ 50,000	\$ 50,000
41	Plan Monitoring and Adaptive management	Annual Monitoring & Adaptive Management Report, Increased Capacity for M & AM	1 FTE	Multiple Stakeholders	Ongoing	\$ 346,500	\$ 50,000	\$ 296,500	\$ 115,500	\$ 115,500	\$ 115,500
42	Mainstem Juvenile Outmigrant Trap	Production Estimation	NA	Stillaguamish Tribe	ongoing	\$ 378,000	\$ 120,000	\$ 258,000	\$ 126,000	\$ 126,000	\$ 126,000
43	Coded-wire tagged Program	Coded-wire tagged fish released	200,000/yr.	Stillaguamish tribe (tagging); multiple agencies (tag recovery, reading, and analysis)	Ongoing	\$ 81,900	\$ 78,000	\$ 3,900	\$ 27,300	\$ 27,300	\$ 27,300
44	Reassessment of Recovery Exploitation Rate (RER)	Possibly revised harvest management guideline for NF and SF populations	NA	Tulalip Tribes, WDFW	Not started until SF supplementation smolts can be tagged	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

	Category/Name	Units	Quantity	Likely Sponsor	Project/Program Status/Background	Total 3 Year Cost	Estimated Existing Funds	Additional Funding Needed Next 3 years	Total Cost: 2013	2014	2015
45	Water quality monitoring	Multiple sampling sites	NA	Snohomish County, Stillaguamish Tribe, City of Arlington	Ongoing	\$ 787,500	\$ 750,000	\$ 37,500	\$ 262,500	\$ 262,500	\$ 262,500
46	Large river survey	River miles surveyed	80	Snohomish County, Stillaguamish Tribe	on hold	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
47	Wadable stream survey	Wadable stream miles surveyed	90	Snohomish County, Stillaguamish Tribe, Tulalip Tribes, USFS	on hold	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
48	Fine sediment data collection and analysis	River miles sampled	80 miles	Snohomish County, Stillaguamish Tribe	Ongoing: Pilchuck begun in 2009. NF and SF complete	\$ 682,500	\$ 60,000	\$ 622,500	\$ 227,500	\$ 227,500	\$ 227,500
49	Reach scale river restoration analysis	Reach scale analysis completed	NA	Snohomish County	in progress	\$ 105,000	\$ 100,000	\$ 5,000	\$ 35,000	\$ 35,000	\$ 35,000
50	Estuary monitoring and assessment	Ongoing Monitoring	NA	TNC, Stillaguamish Tribe	Ongoing	\$ 252,000	\$ 45,000	\$ 207,000	\$ 84,000	\$ 84,000	\$ 84,000
51	South Fork smolt trap	production estimation	NA	Stillaguamish Tribe	Not Started	\$ 367,500	\$ -	\$ 367,500	\$ 122,500	\$ 122,500	\$ 122,500
52	Stillaguamish Mussel Survey	Stream miles surveyed		Snohomish County	Ongoing as of 2005	\$ 15,750	\$ 6,000	\$ 9,750	\$ 5,250	\$ 5,250	\$ 5,250
53	Juvenile salmon endocrine disruptor study	Basin wide	NA	Stillaguamish Tribe, NOAA, Snohomish County MRC	Ongoing	\$ 78,750	\$ 75,000	\$ 3,750	\$ 26,250	\$ 26,250	\$ 26,250
54	Pocket Estuary Mapping - Identify and prioritize for restoration	Estuary-wide pocket estuary map	NA	Stillaguamish Tribe	All PE's have been mapped by SRSC. Prioritization is a short office exercise.	\$ 5,250	\$ -	\$ 5,250	\$ 1,750	\$ 1,750	\$ 1,750
55	Development and adaptation of hydrodynamic models	Integrated hydrodynamic models for restoration projects	NA	Snohomish County	Program	\$ 157,500	\$ -	\$ 157,500	\$ 52,500	\$ 52,500	\$ 52,500
56	Temperature monitoring	Multiple sites in North Fork by 303(d) listed segments	NA	USFS	Planning; seeking funds	\$ 26,250	\$ 5,000	\$ 21,250	\$ 8,750	\$ 8,750	\$ 8,750
57	Forest Roads Assessment for future treatments	Miles of Forest Roads Assessed	45	FS, Tribes	Planning; seeking funds;	\$ 23,625	\$ 5,000	\$ 18,625	\$ 7,875	\$ 7,875	\$ 7,875
58	Basin Wide Sediment Budget	Sediment Budget	NA	Wild Fish Conservancy, USFS	Preliminary Review	\$ 367,500	\$ -	\$ 367,500	\$ 122,500	\$ 122,500	\$ 122,500
59	Chinook prespawning mortality / predation / disease surveys	Middle North Fork and tributaries surveyed	NA	Wild Fish Conservancy, Stillaguamish Tribe	Not Started	\$ 110,250	\$ 45,000	\$ 65,250	\$ 36,750	\$ 36,750	\$ 36,750
60	Stillaguamish low flow water right assessment	Basin Wide	NA	Wild Fish Conservancy, Washington Water Trust	Funded in 2007, complete	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

	Category/Name	Units	Quantity	Likely Sponsor	Project/Program Status/Background	Total 3 Year Cost	Estimated Existing Funds	Additional Funding Needed Next 3 years	Total Cost: 2013	2014	2015
61	Forest Practice review and assessment	USFS Lands	NA	Wild Fish Conservancy, USFS	Not Started	\$ 78,750	\$ -	\$ 78,750	\$ 26,250	\$ 26,250	\$ 26,250
62	South Fork Reach Fish Use Assessment	South Fork - sites to be determined	NA	Wild Fish Conservancy, Snohomish County	Not Started	\$ 168,000	\$ -	\$ 168,000	\$ 56,000	\$ 56,000	\$ 56,000
63	North Fork Stillaguamish Restoration Assessment			Snohomish County	Funded in 2012	\$ 99,500	\$ 99,500	\$ -	\$ 33,167	\$ 33,167	\$ 33,167
64	Stillaguamish Mainstem Assessment			Snohomish County	Funded, in progress	\$ 100,000	\$ 100,000	\$ -	\$ 33,333	\$ 33,333	\$ 33,333
65	Stilly Sub-basin TMDL stream monitoring	stream monitoring sites	8	Snohomish Conservation District	monitoring plan completed	\$ 29,400	\$ 28,000	\$ 1,400	\$ 9,800	\$ 9,800	\$ 9,800
66	Peak Flow Study		NA	Stillaguamish Tribe	Ongoing, complete in 2013	\$ 150,000	\$ 15,000	\$ -	\$ 150,000	\$ -	\$ -
					Subtotal			\$ 2,694,925			
	Strategic Planning/Capacity increases										
67	Comprehensive estuary restoration strategy		Program	Snohomish County	Not started	\$ 52,500	\$ 25,000	\$ 27,500	\$ 17,500	\$ 17,500	\$ 17,500
68	Comprehensive floodplain function strategy		Program	Snohomish County	Not started	\$ 47,250	\$ 20,000	\$ 27,250	\$ 15,750	\$ 15,750	\$ 15,750
					Subtotal			\$ 54,750			
	Watershed Coordination										
69	Lead entity administration		Program	Snohomish County, Stillaguamish Tribe	Ongoing	\$ 510,000	\$ 510,000	\$ -	\$ 170,000	\$ 170,000	\$ 170,000
70	City and urban assistance in plan implementation and code amendments	Program	NA	City of Arlington		\$ 160,000	\$ 160,000	\$ -	\$ 53,333	\$ 53,333	\$ 53,333
					Subtotal			\$ -			
				Total non-capital need		\$ 12,230,723	\$ 5,800,800	\$ 5,900,080	\$ 4,230,241	\$ 4,080,241	\$ 4,080,241