

**Nisqually Watershed Salmon Recovery
3 year work program 2013-2015**

Nisqually Salmon Recovery Summary

Introduction

Since the implementation of the original Nisqually Chinook Recovery Plan (NCRP 2001), we have accomplished major habitat restoration initiatives and continued efforts to protect existing habitat, monitor and evaluate restoration activities, and develop and implement a Nisqually Chinook Stock Management Plan (NCSMP 2011). Major habitat restoration accomplishments include the Nisqually Estuary restoration, Ohop Creek Phase 1, and several Mashel River wood placement projects (Table 1). Future restoration opportunities, such as Ohop Creek Phases 2 (currently in application) and 3 are large-scale and will require complex funding and coordination. Habitat protection efforts continue to advance, ensuring that existing high quality habitat will remain and the quality and quantity of Nisqually salmon habitat will increase over time. Our habitat monitoring efforts, especially in the Nisqually estuary, have been progressing and we are beginning to incorporate predicted climate change effects into our restoration planning. In 2011 we began to implement actions identified in the NCSMP and the lessons learned in 2011 and 2012 will lead to future successes. In addition to implementing all elements of the NCSMP, preliminary steelhead recovery planning has begun in the Nisqually watershed and this will be a focus over the next 3 years.

Table 1. Nisqually Chinook management timeline

Year	Habitat	Hatchery/Weir	Harvest	Stock Status/Escapement Management
1991	Large sections of the Nisqually mainstem are protected by Fort Lewis and Nisqually Indian Reservation. However, sections of the mainstem and tributaries are not protected. The Nisqually estuary is severely reduced in area from dikes on both sides of river.	Clear Cr. hatchery releases began with release goal of 3.4 million fish, in addition to 600,000 release goal from Kalama Creek	Harvest is managed to take advantage of hatchery programs, total exploitation rates consistently exceed 70%	No specific management goals defined for natural escapement.
1996	Red salmon slough estuary restoration: dike breached to restore 12 acres of salt marsh	Last year use of non-Nisqually brood stock at Clear Creek or Kalama Creek. McAllister Creek continues to import brood stock.		
1997	Minimum flows established for hydropower impacted reaches during relicensing			
1999		Mark rates improved dramatically with use of auto-marking trailers		ESA listing of Puget Sound Chinook
2000				Begin period to re-establish natural production of Chinook in Nisqually, target Chinook natural spawning escapement of 1,100 fish of hatchery- or natural-origin.
2001	63% of mainstem Nisqually River shoreline in protected status			Nisqually Chinook Recovery Plan (NCRP) released, details elements of habitat action plan
2002		McAllister Cr. WDFW hatchery closed (program release was 1.0 million subyearling and 300k yearling Chinook from a variety of brood stock sources)		
2004	Lower Mashel Restoration Project (install 7 logjams)			
2005	70% of mainstem Nisqually River shoreline in protected status			Escapement target revised to 1,200 naturally spawning Chinook based on revised estimate habitat potential

Nisqually 2013 Three-Year Work Program

Year	Habitat	Hatchery/Weir	Harvest	Stock Status/Escapement Management
2006	Red Salmon Slough dike removal for estuary restoration (150 acres + wetland and surge plain)		Sport regulations revised to require release of all adult non-adipose clipped Chinook	
2007	Eatonville Mashel Phase 1 project (12 logjams)			2001 NCRP adopted as official plan by the federal government, Puget Sound steelhead ESA listed
2009	NNWR estuary restoration with dike removal restoring 760 acres			First year of juvenile out-migrant estimates from trap operated by WDFW at RM 12.8
2010	Eatonville Mashel Phase 2 project (installed 23 logjams), Ohop Phase 1 completed, restored 1 mile of creek	Mark rates improved to over 95% with more efficient sorting of clipped fish	Puget Sound Harvest Management Plan developed to guide annual harvest, includes schedule to reduce total exploitation on Nisqually natural Chinook to 47% by 2014. Total exploitation rate on Nisqually Chinook in 2010 was 72%	
2011	75% of Nisqually River mainstem shoreline in protected status	First year installed mainstem weir, multiple issues with design discovered	Total exploitation rate target on natural Chinook of 65% First year testing selective harvest gear with tribal staff.	Nisqually Chinook Stock Management Plan developed to guide process to achieve a self-sustaining, locally adapted natural population. The plan actions for hatchery brood stock, terminal harvest, and natural spawning escapement.
2012			Plan total exploitation rate target on natural Chinook less than 56%. First year with treaty fishers using selective gear commercially	Plan first year of mark-recapture study to estimate escapement upstream of weir
2013	Produce new habitat action plan; incorporate updated Steelhead EDT modeling	Plan first year of full weir operation with full implementation of pHOS criteria and escapement objectives identified in NCSMP	Plan total exploitation rate target on natural Chinook of 56%	
2014		Plan first year to integrate Kalama Cr. brood stock using natural-origin adults collected at weir.	Plan total exploitation rate target on natural Chinook of 47%	Begin Steelhead management under new Steelhead Recovery Plan
2015	Ohop Phase 2 complete			

Nisqually Chinook Recovery Plan

The NCSMP was developed by the Nisqually Chinook Recovery Team (NIT, WDFW and others) to identify actions to take us from an era of hatchery dominated escapement (percent hatchery exceeding 70%) with a focus on habitat colonization towards promoting the development of a self-sustaining locally-adapted natural population. Included in this process was a review and update of the goals and objectives developed in the Chinook recovery plan in 2001. The updated goals and objectives for Chinook Recovery in the NCSMP can be found in Table 2. The Chinook Recovery Team utilized all available escapement abundance and composition, harvest, hatchery return, and habitat condition data to assess the current stock status. A result of this review was a 'Status and Trends' analysis to be updated annually as new information becomes available. These data were also incorporated into modeling tools including Ecosystem Diagnosis and Treatment (EDT), All-H-Analyzer (AHA), and In-season Implementation Tool (ISIT) to update stock management targets, and to analyze a suite of actions to achieve objectives. A target of less than 10% hatchery-origin spawners was adopted to promote the development of a self-sustaining natural run. The previous management target of 1,200 (mixed composition) spawners has been replaced with a new focus on managing for composition and a minimum escapement of 500 naturally spawning Chinook above the weir. This minimum escapement is not an escapement target; rather it is a critical low abundance threshold for managing harvest and weir operations. One of our primary stock assessment actions over the next three years will be to incorporate historical Chinook stock data, habitat conditions, and current natural-origin Chinook run size under the new harvest regime to develop updated near- and mid-term escapement targets. Actions identified in the NCSMP include exclusion of hatchery strays with a weir, integration of hatchery brood stock, harvest rate reductions on natural-origin returns, and implementation of selective harvest gear in the treaty net fishery.

Key to the success of the NCSMP is efficient and timely inclusion of information in the management structure and a planned process to review and act on information. Specifically, the NCSMP must audit performance, challenge key assumptions, guide decisions, and plan activities for the upcoming year. A critical element is the Annual Project Review (APR) convened each February. The APR is a multi-day meeting planned by NIT and WDFW during monthly Nisqually Stock Assessment Workgroup meetings. The APR is when Nisqually natural resources staff and WDFW set plans and biological targets for the upcoming management season. The APR also includes a public meeting component to present new information and planned activities, and to hear feedback from interested individuals and organizations in the basin.

Table 2. Nisqually Chinook management goals and objectives

Type	Description
Long Term Goals	<ul style="list-style-type: none"> Assure natural production of Chinook in perpetuity by providing high quality, functioning habitat and by developing a self-sustaining, naturally spawning population with diverse geographic distribution.
	<ul style="list-style-type: none"> Assure a sustainable annual terminal harvest of 10,000 to 15,000 Chinook.
	<ul style="list-style-type: none"> Provide significant contributions to ecosystem functions.
	<ul style="list-style-type: none"> Secure and enhance natural production of all salmonids.
	<ul style="list-style-type: none"> Assure that the economic, cultural, and social benefits derived from the Nisqually ecosystem will be sustained in perpetuity.
Short Term (10 yr) Conservation Objectives	<ul style="list-style-type: none"> Manage harvest on natural-origin Nisqually Chinook to not substantially impede the opportunity for the population to grow towards the long-term recovery goal.
	<ul style="list-style-type: none"> Manage escapement composition (hatchery- and natural-origin) for the population component upstream of weir to achieve a four-year moving average proportion of hatchery-origin spawners (pHOS) that is less than 10%
	<ul style="list-style-type: none"> Develop a hatchery program that has a genetic continuity to the natural population achieved by a 600,000 fish release integrated program with a proportion of natural origin brood stock (pNOB) of 25% and a 3.4 million harvest program with 100% brood stock taken from integrated hatchery return.
Short Term (10 yr) Harvest Objectives	<ul style="list-style-type: none"> Manage pre-terminal fisheries to selectively harvest Nisqually hatchery Chinook while not exceeding the total exploitation rate target of 47% (by 2014) on natural-origin Nisqually Chinook.
	<ul style="list-style-type: none"> Develop and implement selective gear methods in the Nisqually terminal tribal fishery to achieve the harvest goal of 10,000 to 15,000 hatchery Chinook while reducing impacts to natural-origin Chinook
Short Term (10 yr) Habitat Objectives	<ul style="list-style-type: none"> <i>Protection:</i> No further degradation in the Nisqually watershed and Puget Sound. Protect habitat to support the productivity, abundance, and life history diversity of natural-origin Nisqually Chinook.
	<ul style="list-style-type: none"> <i>Restoration:</i> Restore habitat in the Nisqually watershed and in Puget Sound to support the long-term objective to improve natural-origin Nisqually Chinook productivity, abundance, and life history diversity
Short Term (10 yr) Community Support Objectives	<ul style="list-style-type: none"> Increase local community awareness of, and support for, high priority actions to recover Nisqually and Puget Sound salmon
	<ul style="list-style-type: none"> Increase regional, state, and national community awareness of and support for high priority actions to recover Puget Sound salmon

Habitat

Overview

The 2001 NCRP contained an action plan that outlined specific restoration and protection priorities. The action plan was guided by EDT model results and identified the following general priority areas: the Nisqually estuary, portions of the Nisqually mainstem, Ohop Creek, and the Mashel River. More detail on the habitat priorities can be found in Appendix A. We continue to work on actions listed in this plan and to refine the habitat priorities through research, assessments, monitoring, and evaluation. For example, when the 2001 NCRP was developed we lacked information about how Nisqually Chinook utilize the nearshore environment and about the habitat condition. Juvenile Chinook sampling since then has indicated that the nearshore areas adjacent to the Nisqually Delta are important for Chinook rearing and migration. Additionally, several nearshore assessments have been completed, including the Nisqually to Point Defiance Nearshore Habitat Assessment. This information has resulted in the inclusion of specific nearshore projects in our 3 year work program.

Recent Accomplishments

Large scale habitat restoration projects in all three of the priority restoration areas of the Nisqually watershed (Nisqually River estuary, Mashel River, and Ohop Creek) were implemented over the last three years. This includes finalizing the estuary restoration (Red Salmon Slough Phase 3 and estuary plantings), Ohop Phase 1, and Mashel River wood placement. Habitat protection efforts in the Nisqually watershed progress steadily with over 75% of mainstem shorelines protected, as well as important habitat on the Mashel River and Ohop Creek. Additionally, planning work has advanced for Ohop Phase 2 as well as the lower Nisqually River mainstem, and Puget Sound nearshore.

Plans for 2013-2015

This three year work program includes projects that continue to move large-scale restoration initiatives towards implementation and advance protection of Nisqually salmon habitat. Specific nearshore restoration actions are also included, some of which were identified in the recently completed Nisqually to Point Defiance (WRIA 11/12) Nearshore Habitat Assessment and Restoration Design Project. These nearshore areas are outside of our official watershed/lead entity boundaries however we are including them because protection and restoration of Puget Sound nearshore habitat is one of the most critical habitat actions necessary to recover Nisqually Chinook. The nearshore actions will be forwarded to the South Sound Watershed's 3 year work program as well. Over the next 3 years we will continue to work on moving large-scale projects forward, including Ohop phase 2 and 3, I-5 relocation, and lower Nisqually planning.

One of the new components of the Nisqually work program is the first step in a major initiative to protect and restore over 250 acres of floodplain along the highly impacted McKenna reach. The goal of this initial phase is to develop a protection strategy and a series of alternative restoration designs that will restore and enhance off-channel habitat and reconnect a mile of river frontage/ floodplain with the mainstem Nisqually River. The 2004 Nisqually River Off-Channel Habitat Assessment conducted by the South Puget Sound Salmon Enhancement Group and the Nisqually Indian Tribe identified six severely impaired off-channel habitat complexes within the McKenna Reach, the most heavily impaired reach in terms of floodplain habitat in the Nisqually

Basin. The sites have multiple impairments ranging from severe riparian degradation to hydrologic and morphologic modifications. Four of the six off-channel habitat complexes are located in the proposed project area.

Habitat Monitoring

Nisqually habitat monitoring efforts vary in their intensity and coverage. Implementation monitoring is ongoing throughout the watershed for all salmon recovery projects. Over the next three years we will expand our implementation monitoring metrics and will continue to use the Habitat Work Schedule (HWS) as our primary database. Effectiveness monitoring is being done at specific project areas such as the estuary restoration projects, Mashel River logjam placements, and at the Ohop Creek Phase 1 project area. Effectiveness monitoring includes habitat change assessments. We have a monitoring attribute table that we hope to implement in the next three years. This should enable us to assess the effectiveness of all major habitat actions at addressing the limiting factors. Additionally we look forward to working with the RITT to integrate the open standards approach into our monitoring efforts. Some validation monitoring is ongoing. For example, at the Nisqually Estuary we are testing our hypotheses about how restored estuarine processes affect habitat use and survival of juvenile Chinook. In addition, we are working with the USGS to incorporate climate change induced sea level rise predictions into our estuarine habitat monitoring. Early results indicate that sediment delivery through the system is currently impaired and that restoration of the sediment budget is essential to maintaining and developing estuary marsh habitat in the face of sea level rise. As this research is refined, we will work to develop a suite of options for managing sediment delivery to the delta over the next three years. The Nisqually watershed recognizes that habitat status and trends monitoring is an extremely important component of any long term recovery strategy. A deliberate, strategic, and concerted status and trends monitoring effort has not been implemented. We will continue to look for resources to implement this important component.

Hatchery/Weir

Overview

See Table 1 for major hatchery milestones. The purpose of the Clear and Kalama Creek hatcheries has been to provide fish for pre-terminal and terminal harvest. The purpose of these hatcheries does not change; they will continue to be the primary source of fish for harvest by the Nisqually tribe net fishery and non-treaty fishers. However, hatchery operations are being adjusted to also promote the development of a self-sustaining locally-adapted natural population. The NCSMP outlines exclusion of hatchery-origin Chinook from spawning above the weir at river mile 12.3 and the development of an integrated Kalama Creek hatchery program. This integrated program will be used to generate brood stock to support a stepping-stone harvest program (that uses brood stock collected from the integrated program return) at Clear Creek and to provide a demographic safety net in years of critically low adult abundance.

Recent Accomplishments

Mark rates on our hatchery releases have improved over time due to the use of automatic trailers and improvements in how clipped and unclipped fish are sorted. In summer 2012 we tested installation and operation of a mainstem weir to exclude hatchery fish. We found several design flaws and these findings are being used to revise the weir design for 2013.

Plans for 2013-2015

A mainstem weir will be operated from early July to late October each year to exclude hatchery-origin Chinook. The weir will also be used to collect brood stock for the integrated hatchery program. In 2013 we will not be collecting natural-origin Chinook for the integrated program at Kalama Creek. Instead, we plan to test gear and practice brood stock handling procedures at the weir and hatchery with hatchery-origin Chinook. We plan to begin integration by 2014. These actions will continue to be implemented in 2014 and 2015 along with any updates developed through our annual review process.

Harvest

Overview

Fishery management has changed significantly over time (Table 1). Harvest management was simply ensuring sufficient escapement to the hatchery to meet the brood stock collection needs and to achieve a mixed composition natural spawning escapement of 1,200 fish. The NSCMP identifies a total exploitation rate of 47% on natural-origin Chinook by 2014. A higher total exploitation rate on hatchery-origin Chinook, if it can be accomplished with selective fisheries, will be necessary to meet harvest goals and reduce the incidence of hatchery strays.

Recent Accomplishments

Selective gear (drift and set tangle nets) were successfully tested in 2011 both for feasibility and impact on the survival of released fish. A harvest rate reduction in the treaty net fishery was implemented in 2011 by reducing the total number of days the fishery was open.

Plans for 2013-2015

Planned 2013 actions include treaty selective fishery openings, managing fishery openings to meet our targeted terminal harvest rate on natural-origin Chinook, and improvements to pre-season and in-season forecasting tools and protocols to better forecast run size pre-season and update run size in-season. The 2013 and 2014 harvest schedule for Nisqually Chinook calls for further reductions in the terminal net fishery. These reductions are necessary to contribute to reducing the total exploitation rate on natural-origin Chinook to 47% by 2014.

Stock Status/ Adaptive Management

Overview

The escapement estimation methodology that has been used since the 1980's for Nisqually Chinook has provided only a rough estimate of escapement. Poor visibility in the mainstem Nisqually River makes it difficult to accurately count the number of spawners on surveys. There has also, until recently, been no estimate of the number of juveniles out-migrating. There has been good data provided from the monitoring of fisheries and hatchery returns. The combination of an out-migrant trap operated by WDFW since 2009 and the adult weir to be operated by the Nisqually Indian Tribe will allow for substantial improvement in the breadth and accuracy of our stock status information.

Recent Accomplishments

An out-migrant trap was first operated by WDFW in 2009 and has provided estimates of juvenile Chinook, coho, chum, pink, and steelhead each year since. In the future we plan to use these estimates to compute smolt to adult and adult to smolt survival rates. These survival rate estimates will be valuable as we track trends in stock productivity and improve pre-season forecasts. We initiated an annual project review process in 2010 to gather and share information and make plans through adaptive management. A study of juvenile and adult Chinook otoliths, in cooperation with USGS, has completed analysis on a full brood year including habitat use and growth patterns in the estuary by outgoing juveniles and life history of successfully returning adults captured in the fishery or after spawning.

Plans for 2013-2015

Plans for 2013 include using weir counts and a mark-recapture study to produce a more accurate escapement estimate, collection of genetic samples from adult returns passed upstream at the weir for a parentage study, collection of biological data at the weir to improve our understanding of life history of natural-origin Chinook, and improved data management. These actions will be continued into 2014 and 2015 along with updates from the annual project review process. Chinook recovery over the next three years will be characterized by continuing to refine actions described in the NCSMP, developing Nisqually specific VSP metrics, advancing the development of an adaptive management strategy that takes advantage of improvements in stock status and trends data, and continued focus on restoration and protection initiatives. The information compiled from our stock assessment efforts, along with habitat conditions monitoring and evaluation will be used in the APR to advance our H-integration efforts. We will strive to include new information and planning options related to climate change in our planning process.

Steelhead Recovery

Over the next 3 years we plan to begin implementing the Nisqually Steelhead Recovery Plan. The plan will highlight habitat actions not covered in the Chinook plan, incorporate current research on early marine survival, update modeling efforts, and detail research and stock management needs. Some of these early actions are included in this 3 year work plan, including a counter at the Centralia Diversion Dam fish ladder to better estimate steelhead spawner abundance.

Nisqually Watershed Response to the Three Year Work Plan Questions:

I. *Consistency Question*

1. Is the plan's current strategy either substantially the same as documented in the Recovery Plan (Volume I and II of the Puget Sound Chinook Recovery Plan plus NOAA supplement) or well supported by additional data analysis.
2. Is the sequence of actions identified in the 3YWP consistent with the current hypotheses and strategies?

The suite of proposals for 2013 fit our strategy and continue to advance our habitat restoration and protection priorities (Appendix A). Our 3 year work plan also includes large-scale restoration and protection initiatives that could significantly advance recovery. However, the scale and cost of some of these initiatives necessitate complicated funding and phasing strategies. We have included nearshore restoration projects in our 3 year work plan because nearshore restoration is a high priority for Nisqually Chinook, even though these projects lie outside of our WRIA boundary. Our harvest and hatchery actions are necessary to promote development of a self-sustaining locally-adapted stock, and are consistent with our 2011 NCSMP which updates the original recovery plan.

II. *Sequence/Timing*

1. Are actions sequenced and timed appropriately for the current stage of implementation?

The top priorities are described in the attached documents in more detail. In brief summary the top habitat priorities are completion of the Estuary Restoration, protection of the Nisqually mainstem, protection and restoration of the Mashel River, protection and restoration of Ohop Creek, and protection and restoration of the Puget Sound nearshore.

The high priority habitat actions are being sequenced based on landowner willingness and logistics considerations for next steps in the major projects. The primary thing we need to be successful in these projects is the funding necessary to implement them and continued funding for the capacity to coordinate their implementation.

The top stock management priority is to manage the population to allow the development of a natural origin stock that is locally adapted to the Nisqually watershed. This involves both hatchery and harvest management actions sequenced to maximize their effectiveness. For example, decreasing pHOS to < 10% on the spawning grounds depends on a corresponding reduction in the NOR exploitation rate. More information can be found in the attached documents.

Appendix A

Nisqually Salmon Recovery Habitat Restoration and Protection Priorities

The 2001 Nisqually Chinook Recovery Plan (NCRP) contained a habitat action plan that outlined spatially explicit restoration and protection priorities. The action plan was guided by EDT model results and identified the following specific reaches for restoration and/or protection. We continue to work on actions listed in this plan and to refine the habitat priorities through research, assessments, monitoring, and evaluation. The Nisqually salmon recovery priority areas for 2012 are being used again in 2013. Since the priority areas were last identified, an error was found in the fish use characterization of the McKenna and Whitewater reaches. After correcting for the error, restoration of the reaches moved from a Tier 3 priority to a Tier 2 priority. The 2013 list includes an update of the current conditions in the EDT model to reflect several large scale restoration projects including the restoration of over 900 acres of estuary habitat. Since 2010, the list has included steelhead EDT model results in combination with the Chinook salmon model results to identify the habitat priority areas. For more information about the use of EDT in the formulation of the Nisqually Habitat Action Plan please see the 2001 NCRP. The EDT combined percent changes in abundance, capacity, productivity, and life history diversity were combined from both steelhead and Chinook model results to develop these geographic priorities:

Tier 1 (Highest Priority)

Estuary Protection and Restoration

Protection of functioning reaches of the mainstem Nisqually River and the mouth of the river

Protection of the lower Mashel River

Tier 2 (High Priority)

Protection of the rest of the mainstem Nisqually River reaches, except upper Nisqually.

Improving upstream fish passage at Centralia Diversion Dam

Restoration of the lowest reach of the Nisqually River reaches near Mounts Road

Restoration of lower Ohop Creek valley

Protection of the rest of mainstem Mashel River

Restoration of Mashel River

Restoration of South Puget Sound

Protection of lower Yelm Creek

Restoration of McKenna and Whitewater Reaches of Nisqually River

Tier 3 (Medium Priority)

Protection and restoration of Busywild Creek

Protection of Upper Nisqually River from Alder/LaGrande dams to mouth of Ohop Creek

Protection of lower and middle Tanwax Creek and restoration of upper Tanwax

Protection and restoration of Muck Creek downstream of Roy and South Fork Muck

Restoration of Muck Creek upstream of Roy

Restoration of Nisqually and Commencement Bays and Central Puget Sound and Eastern Straits

Protection of entire Ohop Creek Basin

Protection of Little Mashel

Protection of lower sections of Toboton and Powell creeks

Tier 4 (Low Priority)

Protection and restoration of all other areas that are identified to contribute to the recovery of Nisqually Chinook and steelhead

Tier 5

Restoration and protection of the remaining stream reaches in the watershed

Nisqually habitat projects are prioritized based on their location and the following criteria:

1. High priority projects address the limiting factors within a high priority reach or across reaches identified by EDT analysis or other assessments. The project also needs to be at a sufficient scale or blocked with other similar projects to have a detectable impact over time. High priority assessment and development projects accomplish one or more of the following: identify limiting factors, identify or advance on-the-ground projects within a high priority tier, and update the habitat action plan.
2. High priority projects restore habitat forming processes where feasible and are technically sound. Habitat enhancement projects are discouraged except in cases where human infrastructure cannot be feasibly modified.
3. High priority projects are sequenced strategically to maximize restoration and protection potential.
4. High priority projects have support by the affected landowners and the broader watershed community.

Major Strategy (Level 1 - Sub-headers)	Initiative (Level 2)	Project (Level 3)	ID#	Project Status	Project Type	Plan Category	Project Name	Project Description	Priority Area	Principles/Qualifier	Comments on need/for	Priority tier of project	Limiting Factors	Reference Document for limiting factor	Habitat Type	Activity Type and Project Performance	Primary Species Benefiting	Secondary Species Benefiting	HWS Project Status	2013/Year 1 Activity to be funded	2013/Year 1 Estimated Budget	2014/Year 2 Activity to be funded	2014/Year 2 Estimated Budget	2015/Year 3 Activity to be funded	2015 Year 3 Estimated Budget	2015/Year 3 End Date	2015/Year 3 Sponsor	Total Cost of Project	Local Share or other funding	Source of funds (FARL, SFRS, other)	Unfunded Need	Project Name	11-MAINT# M-1001				
Whitewater/BLM Riparian Restoration	Whitewater/BLM Riparian Restoration	11-MAINT# M-1002	New 2013	Restoration Projects	Capital	Whitewater/BLM Riparian Restoration	Restoration of riparian forest habitat on up to 20 acres within BLM on the Whitewater reach of the Nisqually mainstem.	3				3	Degraded Habitat Channel Structure and Complexity, Degraded Habitat Riparian Areas and LWD Recruitment, Degraded Habitat Water Quality	2001 Nisqually Chinook Recovery Plan	Riparian	Activity Type - Riparian Habitat: Planting (Acres), Activity Type - Riparian Habitat: Plant removal/control (Acres)	Chinook	Cutthroat (Secondary Species), Chum (Secondary Species), Coho (Secondary Species), Pink (Secondary Species), Bull Trout (Secondary Species), Steelhead (Secondary Species)	Completed	decompaction, weed control, planting	20,000	decompaction, weed control, planting	20,000	decompaction, weed control, planting	70000	12/31/15	Nisqually Indian Tribe	140,000	120,000	SFRS - Salmon Recovery Funding Board, Nisqually Indian Tribe	120,000	Whitewater/BLM Riparian Restoration	11-MAINT# M-1002				
		11-MAINT# M-1003	New 2013	Restoration Projects	Capital	North Yelm Whitewater Riparian Restoration	Restoration of 2 acres of riparian forest habitat on the Whitewater reach of the Nisqually mainstem in North Yelm.	3					3	Degraded Habitat Channel Structure and Complexity, Degraded Habitat Riparian Areas and LWD Recruitment, Degraded Habitat Water Quality	2001 Nisqually Chinook Recovery Plan	Riparian	Activity Type - Riparian Habitat: Planting (Acres), Activity Type - Riparian Habitat: Plant removal/control (Acres)	Chinook	Cutthroat (Secondary Species), Chum (Secondary Species), Coho (Secondary Species), Pink (Secondary Species), Bull Trout (Secondary Species), Steelhead (Secondary Species)	Completed	decompaction, weed control, planting	20,000	decompaction, weed control, planting	20,000	decompaction, weed control, planting	20,000	12/31/15	Nisqually Indian Tribe	21,200	21,200	SFRS - Salmon Recovery Funding Board, Nisqually Indian Tribe	21,200	Whitewater North Yelm Riparian Restoration	11-MAINT# M-1003			
	Yelm/McKenzie Shoreline Projects	Yelm - Lower Reach Restoration	11-MAINT# M-1014	Active	Restoration Projects	Capital	Yelm - Lower Reach Restoration	Restoration of riparian and upland forest on 80+ acres of Nisqually Land Trust property adjacent to the Nisqually mainstem, just downstream of the confluence of Thompson Creek and the Nisqually mainstem. Removal of invasive species and debris, and planting of native trees and shrubs in forest openings and understory.	4				4	Degraded Habitat Riparian Areas and LWD Recruitment	2001 Nisqually Chinook Recovery Plan	Upland, Riparian, Rivers/Streams/Shoreline	Plant removal/control (Acres), Planting (Acres)	Chinook	Cutthroat (Secondary Species), Chum (Secondary Species), Coho (Secondary Species), Pink (Secondary Species), Bull Trout (Secondary Species), Steelhead (Secondary Species)	Feasibility Completed	weed control	2000	riparian enhancement, weed control	30000	weed control, monitoring	3000	12/31/15	Nisqually R Land Trust	30000	1000	Nisqually R Land Trust	27000	Yelm - Lower Reach Restoration	11-MAINT# M-1014			
			11-MAINT# M-1015	Active	Restoration Projects	Capital	North Yelm Riparian Restoration	This project would enhance and restore river bank, riparian and upland forest and shrub habitats on two Nisqually Land Trust properties in North Yelm. Together the properties are approximately 42 acres. They are directly across the river from one another and contain a 200-ft wide power easement which has received heavy public use. Restoration activities would include: installing fences and gates where needed, establishing areas impacted by public access, removal of invasive species, and planting native trees and shrubs.	4					4	EDT problem	3	Degraded Habitat Riparian Areas and LWD Recruitment	2001 Nisqually Chinook Recovery Plan	Upland, Riparian, Rivers/Streams/Shoreline	Plant removal/control (Acres), Planting (Acres)	Chinook	Cutthroat (Secondary Species), Chum (Secondary Species), Coho (Secondary Species), Pink (Secondary Species), Bull Trout (Secondary Species), Steelhead (Secondary Species)	Feasibility Completed	develop management plan	2000	invasive species control	10000	invasive species, planting	15000	15000	12/31/2016	Nisqually R Land Trust	35000	0	Not Yet Funded	35000	North Yelm Riparian Restoration
		Yelm McKenna Riparian Restoration	11-MAINT# M-1016	Active	Restoration Projects	Capital	Yelm McKenna Riparian Restoration	Restoration of riparian habitat along the McKenna mainstem, McKenna Creek, and a large off-channel wetland on 1200 acres of Nisqually Land Trust property in Yelm. Ongoing activities include: control of invasive species along McKenna Creek in the vicinity of the bridge crossing; removal of non-native landscaping plants and invasive species throughout the property; and initial planting of native trees and shrubs in old horse camp area. Additional activities to be completed as funding is available: control of invasive species along the full length of McKenna Creek and throughout property; additional planting of native trees and shrubs in open areas; and improvement of wetland connectivity.	4					4	EDT problem; highly visible; high community support	3	Degraded Habitat Floodplain Connectivity and Function, Degraded Habitat Riparian Areas and LWD Recruitment	2001 Nisqually Chinook Recovery Plan	Riparian, Wetland, Rivers/Streams/Shoreline	Activity Type - Riparian Habitat: Planting (Acres), Activity Type - Riparian Habitat: Plant removal/control (Acres)	Chinook	Cutthroat (Secondary Species), Chum (Secondary Species), Coho (Secondary Species), Pink (Secondary Species), Bull Trout (Secondary Species), Steelhead (Secondary Species)	Feasibility Completed	planting, weed control, monitoring	7500	weed control, monitoring	2500	planting, weed control, monitoring	2000	12/31/14	Nisqually R Land Trust	7500	4000	Nisqually Indian Tribe, Nisqually R Land Trust, Natural Resources Conservation Service	10000	Yelm McKenna Riparian Restoration	11-MAINT# M-1016
			11-MAINT# M-1022	Completed 2013	Acquisition Projects	Capital	Yelm Shoreline Protection	This project proposes to acquire three properties totaling 40 acres and 84 miles of shoreline Nisqually River shoreline near Yelm, McKenna, the most rapidly urbanizing area along the mainstem. These properties are in a reach of the river rated highest priority for protection in the Nisqually Chinook Recovery Plan. They directly abut the Nisqually Land Trust's 188-acre Yelm Shoreline Management Unit which includes 1.5 miles of permanently protected shoreline. They contain approximately 25 acres of mature riparian forest and 10 acres of Class I wetlands. They also contain rare Garry oak habitat. The properties buffer and are in need of clear up, restoration and protection against trespass.	1				1	Degraded Habitat Floodplain Connectivity and Function, Degraded Habitat Riparian Areas and LWD Recruitment, Degraded Habitat Water Quality	2001 Nisqually Chinook Recovery Plan	Riparian, Wetland, Rivers/Streams/Shoreline	Activity Type - Acquisition/Easements/Leases: Wetland areas protected (Acres), Activity Type - Acquisition/Easements/Leases: Streambank or riparian protected (Miles), Activity Type - Acquisition/Easements/Leases: Wetland areas protected (Acres)	Chinook	Cutthroat (Secondary Species), Chum (Secondary Species), Coho (Secondary Species), Pink (Secondary Species), Bull Trout (Secondary Species), Steelhead (Secondary Species)	Completed		0		180000	180000	SFRS - Salmon Recovery Funding Board, Thurston County	0	Yelm Shoreline Protection	11-MAINT# M-1022								
		McKenzie 9th Ave Riparian Restoration	11-MAINT# M-1017	Active	Restoration Projects	Capital	McKenzie 9th Ave Riparian Restoration	Remove invasive species and plant native trees and shrubs on 1.5 acres adjacent to Nisqually mainstem in McKenna.	3				3	Degraded Habitat Riparian Areas and LWD Recruitment	2001 Nisqually Chinook Recovery Plan	Upland, Riparian, Rivers/Streams/Shoreline	Plant removal/control (Acres), Planting (Acres)	Chinook	Cutthroat (Secondary Species), Chum (Secondary Species), Coho (Secondary Species), Pink (Secondary Species), Bull Trout (Secondary Species), Steelhead (Secondary Species)	Construction Completed	planting, weed control, monitoring	8000	weed control, monitoring	1500	weed control, monitoring	1500	12/31/15	Nisqually R Land Trust	8000	4000	Nisqually Indian Tribe, Nisqually R Land Trust	4000	McKenzie 9th Ave Riparian Restoration	11-MAINT# M-1017			
		Yelm Shoreline Access Project	11-MAINT# M-1004	Inactive	Habitat Protection	Non-Capital	Yelm Shoreline Access Project	Evaluate Nisqually Land Trust shoreline properties along the Nisqually mainstem in Yelm for lease/public use and public access opportunities. Where appropriate, plan and develop trails or other public access opportunities in cooperation with local agencies and organizations. This project will include outreach and education to the local community about Nisqually River habitats and species.	1				2	Does not address limiting factor and minor problem for salmon	3	Degraded Habitat Riparian Areas and LWD Recruitment, Non-Habitat Limiting Factors	2001 Nisqually Chinook Recovery Plan	Riparian	Chinook	Cutthroat (Secondary Species), Chum (Secondary Species), Coho (Secondary Species), Pink (Secondary Species), Bull Trout (Secondary Species), Steelhead (Secondary Species)	Conceptual		0	Assessment	30000		0	20000	12/31/16	Nisqually R Land Trust	20000	0	YTD	20000	Yelm Shoreline Access Project	11-MAINT# M-1004	
		McKenzie Area Protection Project	11-MAINT# M-1009	Active	Acquisition for Protection	Capital	McKenzie Area Protection Project	Protect over 200 acres along the Nisqually River that includes portions of McKenna Creek headwater wetlands, riparian areas along the mainstem. The sponsors will acquire a conservation easement over this property situated near the most rapidly urbanizing area along the mainstem of the Nisqually River.	2				2	Degraded Habitat Floodplain Connectivity and Function, Degraded Habitat Riparian Areas and LWD Recruitment, Degraded Habitat Water Quality, Degraded Habitat Stream Substrate and Nearshore Marine, Degraded Habitat Fish Passage	2001 Nisqually Chinook Recovery Plan	Riparian	Activity Type - Acquisition/Easements/Leases: Streambank or riparian protected (Miles), Activity Type - Acquisition/Easements/Leases: Wetland areas protected (Acres)	Chinook	Cutthroat (Secondary Species), Chum (Secondary Species), Coho (Secondary Species), Pink (Secondary Species), Bull Trout (Secondary Species), Steelhead (Secondary Species)	Proposed		0	develop plan	60000	develop plan	60000	60000	12/31/14	Nisqually R Land Trust	140000	20000	YTD	120000	McKenzie Area Protection Project	11-MAINT# M-1009		
		Nisqually Whitewater Reach Protection - East Shoreline	11-MAINT# M-1029	Inactive	Acquisition for Protection	Capital	Nisqually White Reach Protection East Shoreline	Acquire 12 acres of Nisqually River shoreline in the Whitewater Reach. This property is on the east side of the river, just downstream of 20 acres and across the river from 20 acres already protected by the Land Trust.	1				1	Degraded Habitat Floodplain Connectivity and Function, Degraded Habitat Riparian Areas and LWD Recruitment, Degraded Habitat Water Quality	2001 Nisqually Chinook Recovery Plan	Riparian, Rivers/Streams/Shoreline	Plant removal/control (Acres)	Chinook	Cutthroat (Secondary Species), Chum (Secondary Species), Coho (Secondary Species), Pink (Secondary Species), Bull Trout (Secondary Species), Steelhead (Secondary Species)	Conceptual		130000	12/31/2015	Nisqually R Land Trust	130000	0	130000							Nisqually Whitewater Reach Protection - East Shoreline	11-MAINT# M-1029		
Mainstem Monitoring and Assessments	Mainstem Nisqually LWD Assessment and restoration plan	11-MAINT# M-1012	Inactive	Future Habitat Project Development	Non-capital	Mainstem Assessment and Restoration Plan	In the Watershed analysis and in other assessments of the mainstem Nisqually it has been noted that certain sections of the Nisqually mainstem is lacking wood, especially in the reaches immediately downstream of the Alder/Ja Grande Hydro Project. This project will assess the large woody debris loading in the many of these reaches and identifies wood loading deficiencies, combines them with the data on wood recruitment and identifies wood project for the mainstem including 30% engineering designs.	2				2	Degraded Habitat Floodplain Connectivity and Function, Degraded Habitat Riparian Areas and LWD Recruitment, Degraded Habitat Water Quality	NCP	Instream	Instream Habitat	Chinook	Cutthroat (Secondary Species), Chum (Secondary Species), Coho (Secondary Species), Pink (Secondary Species), Bull Trout (Secondary Species), Steelhead (Secondary Species)	Conceptual	Design	50,000	Design	50,000	Design	35,000	12/31/2014		150000	0	Not Yet Funded	150000	Mainstem Nisqually LWD Assessment and Restoration Plan	11-MAINT# M-1012				
		11-MAINT# M-1011	Active	Future Habitat Project Development	Non-capital	Nisqually Mainstem Off-Channel Restoration Project Development Feasibility	An off-channel habitat assessment completed by USFWS and TRB in 2004 evaluated the presence and condition of off-channel habitat throughout the Nisqually mainstem. The report identified high priority sites for restoration of off-channel habitat. However, the highest priority projects have not yet been implemented due in large part to a lack of landowner willingness. There is a need to identify landowner outreach, identify new willing landowners and then assess feasibility as design key projects.	2				2	Degraded Habitat Floodplain Connectivity and Function, Degraded Habitat Riparian Areas and LWD Recruitment, Degraded Habitat Water Quality, Degraded Habitat Stream Substrate, Degraded Habitat Substrate and Nearshore Marine, Degraded Habitat Fish Passage	NCP	Wetland	Instream Habitat	Chinook	Cutthroat (Secondary Species), Chum (Secondary Species), Coho (Secondary Species), Pink (Secondary Species), Bull Trout (Secondary Species), Steelhead (Secondary Species)	Conceptual	Design	30000	Design	30000	Design	33000	12/31/2015		93000	0	Not Yet Funded	93000	Nisqually Mainstem Off-Channel Restoration Project Development Feasibility	11-MAINT# M-1011				
Lower Powell Riparian Restoration	Lower Powell Riparian Restoration	11-POWELL-0001	New 2013	Restoration Projects	Capital	Lower Powell Riparian Restoration	Restoration of riparian forest habitat on 11 acres in the channel migration zone along the middle reach of the Nisqually mainstem and along Powell Creek in Thurston County.	4				3	Degraded Habitat Channel Structure and Complexity, Degraded Habitat Riparian Areas and LWD Recruitment, Degraded Habitat Water Quality	2001 Nisqually Chinook Recovery Plan	Riparian	Activity Type - Riparian Habitat: Planting (Acres), Activity Type - Riparian Habitat: Plant removal/control (Acres)	Chinook	Cutthroat (Secondary Species), Chum (Secondary Species), Coho (Secondary Species), Pink (Secondary Species), Bull Trout (Secondary Species), Steelhead (Secondary Species)	Proposed	weed control, planting	12,000	weed control, monitoring	6000	weed control, monitoring	6000	12/31/2015	Nisqually R Land Trust	67,000	17,000	SFRS - Salmon Recovery Funding Board, Nisqually Indian Tribe	17,000	Lower Powell Riparian Restoration	11-POWELL-0001				
		11-MAINT# M-1019	Active	Restoration Projects	Capital	Thurston Ridge Riparian Restoration	The Nisqually Land Trust owns 65+ acres of riparian forest habitat on the Thurston side of the Nisqually mainstem. This area is just downstream of known infestations of English ivy and reed canary grass. This area is at the bottom of a high river bank and access to the area for invasive weeds, removal of invasive species, and planting of native trees and shrubs is difficult and expensive.	4				1	Will "protect" the long term habitat features	3	Degraded Habitat Riparian Areas and LWD Recruitment	2001 Nisqually Chinook Recovery Plan	Riparian, Rivers/Streams/Shoreline	Plant removal/control (Acres)	Chinook	Cutthroat (Secondary Species), Chum (Secondary Species), Coho (Secondary Species), Pink (Secondary Species), Bull Trout (Secondary Species), Steelhead (Secondary Species)	Proposed	planting, weed control, monitoring	15000	weed control, monitoring	5000	weed control, monitoring	5000	12/31/2016	Nisqually R Land Trust	45000	20000	Natural Resources Conservation Service	25000	Thurston Ridge Riparian Restoration	11-MAINT# M-1019		
	South Wilcox Flats Riparian Restoration Phase 2	11-MAINT# M-1020	Active	Restoration Projects	Capital	South Wilcox Flats Riparian Restoration - Phase II	Removal of invasive species was started on this site in 2013. Native trees and shrubs will be planted in 2015 on 15+ acres owned by the Nisqually Land Trust on the Thurston County side of the Nisqually mainstem along the Wilcox Reach. This planting will enhance existing riparian forest and fill in gaps created by previous residential and recreational use on the property.	4				4	Degraded Habitat Riparian Areas and LWD Recruitment	2001 Nisqually Chinook Recovery Plan	Upland, Riparian	Plant removal/control (Acres), Planting (Acres)	Chinook	Cutthroat (Secondary Species), Chum (Secondary Species), Coho (Secondary Species), Pink (Secondary Species), Bull Trout (Secondary Species), Steelhead (Secondary Species)	Construction Completed	planting, weed control, monitoring	20000	weed control, monitoring	5000	weed control, monitoring	5000	12/31/2016	Nisqually R Land Trust	80000	80000	SFRS - Salmon Recovery Funding Board, Thurston County	0	South Wilcox Flats Riparian Restoration - Phase II	11-MAINT# M-1020				
		11-MAINT# M-1021	Active	Restoration Projects	Capital	Pepper Upland Forest Restoration	This project will enhance 40 acres of poorly stocked forest on land adjacent to the Nisqually mainstem, just downstream of the confluence of Powell Creek and the Nisqually. Project activities will include: Control of invasive species on old logging roads and windings, and planting 50,000 native trees and shrubs.	4				4	Degraded Habitat Water Quality	2001 Nisqually Chinook Recovery Plan	Upland	Activity Type - Upland Habitat: Fencing (Miles), Activity Type - Upland Habitat: Planting (Acres), Activity Type - Upland Habitat: Invasive weed control (Acres)	Chinook	Cutthroat (Secondary Species), Chum (Secondary Species), Coho (Secondary Species), Pink (Secondary Species), Bull Trout (Secondary Species), Steelhead (Secondary Species)	Construction Completed	planting, weed control, monitoring	13000	weed control, monitoring	8000	weed control, monitoring	8000	12/31/2015	Nisqually R Land Trust	20000	20000	Nisqually Indian Tribe, Nisqually R Land Trust, Natural Resources Conservation Service	0	Pepper Upland Forest Restoration	11-MAINT# M-1021				
	Northern Powell Complex Restoration	11-MAINT# M-1023	Active	Restoration Projects	Capital	North Powell Complex Riparian Restoration	Restoration of riparian forest habitat is ongoing on 40 acres in the channel migration zone along the middle reach of the Nisqually mainstem in Thurston County.	4				3	Addresses major limiting factor in reach	3	Degraded Habitat Floodplain Connectivity and Function, Degraded Habitat Riparian Areas and LWD Recruitment, Degraded Habitat Water Quality	2001 Nisqually Chinook Recovery Plan	Riparian	Activity Type - Riparian Habitat: Planting (Acres), Activity Type - Riparian Habitat: Plant removal/control (Acres)	Chinook	Cutthroat (Secondary Species), Chum (Secondary Species), Coho (Secondary Species), Pink (Secondary Species), Bull Trout (Secondary Species), Steelhead (Secondary Species)	Construction Completed	weed control, irrigation, monitoring	15000	weed control, irrigation, monitoring	15000	weed control, monitoring	5000	12/31/2015	Nisqually R Land Trust	275000	275000	SFRS - Salmon Recovery Funding Board, Nisqually Indian Tribe, USDA Natural Resources Conservation Service	0	North Powell Complex Riparian Restoration	11-MAINT# M-1023		
		11-MAINT# M-1018	Active	Restoration Projects	Non-Capital	Thurston Ridge Boundary Protection	This project will enhance and protect the upland boundary of over a mile of river bank, off-channel habitat, and riparian forest along the Wilcox Reach of the Nisqually River. Activities will include: removal of debris and invasive species along the top of the bank adjacent to a county road; dense planting of native shrubs along bank edge; and installation of informational and boundary signs. If planning and erosion-causing public access escalates at the site, the boundary should be fenced to protect the bank riparian habitat.	1				3	Already purchased property; low risk to habitat features	3	Degraded Habitat Floodplain Connectivity and Function, Degraded Habitat Riparian Areas and LWD Recruitment, Degraded Habitat Stream Substrate, Degraded Habitat Substrate and Nearshore Marine	2001 Nisqually Chinook Recovery Plan	Riparian	Activity Type - Upland Habitat: Planting (Acres), Activity Type - Upland Habitat: Invasive weed control (Acres)	Chinook	Cutthroat (Secondary Species), Chum (Secondary Species), Coho (Secondary Species), Pink (Secondary Species), Bull Trout (Secondary Species), Steelhead (Secondary Species)	Construction Completed	planting, weed control, monitoring	4000	weed control, monitoring	3000	weed control, monitoring	3000	12/31/15	Nisqually R Land Trust	20000	8000	Nisqually Indian Tribe, Nisqually R Land Trust	4000	Thurston Ridge Boundary Protection	11-MAINT# M-1018		
	11-POWELL-0002	Completed 2010	Restoration Projects	Capital	Powell Creek/Nisqually Mainstem Off-Channel Reconnection	This project restored access for juvenile salmon to the largest off-channel wetland complex on the mainstem river. A series of culverts along a former logging road had been removed and the road bed abandoned and planted. An old bridge structure along the mainstem of the river was also removed. Phase 2 of the project removed a culvert from Below Lake Creek, just upstream of where Below Lake Creek joins Powell Creek.	4				1	Minor limiting factor in watershed priority mainstem reach	3	Degraded Habitat Floodplain Connectivity and Function, Degraded Habitat Riparian Areas and LWD Recruitment, Degraded Habitat Stream Flow, Degraded Habitat Stream Substrate, Degraded Habitat Substrate and Nearshore Marine, Degraded Habitat Fish Passage	2001 Nisqually Chinook Recovery Plan	Wetland	Activity Type - Fish Passage: Road crossing removal (Each), Activity Type - Wetlands: Wetland plant removal/control (Acres), Activity Type - Riparian Habitat: Planting (Acres), Activity Type - Upland Habitat: Invasive weed control (Acres), Activity Type - Upland Habitat: Planting (Acres)	Chinook	Cutthroat (Secondary Species), Chum (Secondary Species), Coho (Secondary Species), Pink (Secondary Species), Bull Trout (Secondary Species), Steelhead (Secondary Species)	Construction Completed, Land Acquisition Completed	weed control	6000		0	12/31/11	Nisqually R Land Trust	242000	242000	SFRS - Salmon Recovery Funding Board, US Fish and Wildlife Service, Nisqually Indian Tribe	0	Powell Creek/Nisqually Mainstem Off-Channel Reconnection	11-POWELL-0002					

Major Strategy (Level 1 - Habitat)	Initiative (Level 2)	Project (Level 3)	ID#	Project Status	Project Type	Plan Category	Project Name	Project Description	Priority Area	Principles/Qualifier	Comments on Need/Justification	Priority Area of Project	Limiting Factors	Reference Document for Limiting Factor	Habitat Type	Activity Type and Project Performance	Primary Species Benefiting	Secondary Species Benefiting	HWS Project Status	2013/Year 1 Activity to be Funded	2013/Year 1 Estimated Budget	2014/Year 2 Activity to be Funded	2014/Year 2 Estimated Budget	2015/Year 3 Activity to be Funded	2015/Year 3 Estimated Budget	2016/Year 4 Activity to be Funded	2016/Year 4 Estimated Budget	2017/Year 5 Activity to be Funded	2017/Year 5 Estimated Budget	2018/Year 6 Activity to be Funded	2018/Year 6 Estimated Budget	2019/Year 7 Activity to be Funded	2019/Year 7 Estimated Budget	2020/Year 8 Activity to be Funded	2020/Year 8 Estimated Budget	2021/Year 9 Activity to be Funded	2021/Year 9 Estimated Budget	2022/Year 10 Activity to be Funded	2022/Year 10 Estimated Budget	2023/Year 11 Activity to be Funded	2023/Year 11 Estimated Budget	2024/Year 12 Activity to be Funded	2024/Year 12 Estimated Budget	2025/Year 13 Activity to be Funded	2025/Year 13 Estimated Budget	2026/Year 14 Activity to be Funded	2026/Year 14 Estimated Budget	2027/Year 15 Activity to be Funded	2027/Year 15 Estimated Budget	2028/Year 16 Activity to be Funded	2028/Year 16 Estimated Budget	2029/Year 17 Activity to be Funded	2029/Year 17 Estimated Budget	2030/Year 18 Activity to be Funded	2030/Year 18 Estimated Budget	2031/Year 19 Activity to be Funded	2031/Year 19 Estimated Budget	2032/Year 20 Activity to be Funded	2032/Year 20 Estimated Budget	2033/Year 21 Activity to be Funded	2033/Year 21 Estimated Budget	2034/Year 22 Activity to be Funded	2034/Year 22 Estimated Budget	2035/Year 23 Activity to be Funded	2035/Year 23 Estimated Budget	2036/Year 24 Activity to be Funded	2036/Year 24 Estimated Budget	2037/Year 25 Activity to be Funded	2037/Year 25 Estimated Budget	2038/Year 26 Activity to be Funded	2038/Year 26 Estimated Budget	2039/Year 27 Activity to be Funded	2039/Year 27 Estimated Budget	2040/Year 28 Activity to be Funded	2040/Year 28 Estimated Budget	2041/Year 29 Activity to be Funded	2041/Year 29 Estimated Budget	2042/Year 30 Activity to be Funded	2042/Year 30 Estimated Budget	2043/Year 31 Activity to be Funded	2043/Year 31 Estimated Budget	2044/Year 32 Activity to be Funded	2044/Year 32 Estimated Budget	2045/Year 33 Activity to be Funded	2045/Year 33 Estimated Budget	2046/Year 34 Activity to be Funded	2046/Year 34 Estimated Budget	2047/Year 35 Activity to be Funded	2047/Year 35 Estimated Budget	2048/Year 36 Activity to be Funded	2048/Year 36 Estimated Budget	2049/Year 37 Activity to be Funded	2049/Year 37 Estimated Budget	2050/Year 38 Activity to be Funded	2050/Year 38 Estimated Budget	2051/Year 39 Activity to be Funded	2051/Year 39 Estimated Budget	2052/Year 40 Activity to be Funded	2052/Year 40 Estimated Budget	2053/Year 41 Activity to be Funded	2053/Year 41 Estimated Budget	2054/Year 42 Activity to be Funded	2054/Year 42 Estimated Budget	2055/Year 43 Activity to be Funded	2055/Year 43 Estimated Budget	2056/Year 44 Activity to be Funded	2056/Year 44 Estimated Budget	2057/Year 45 Activity to be Funded	2057/Year 45 Estimated Budget	2058/Year 46 Activity to be Funded	2058/Year 46 Estimated Budget	2059/Year 47 Activity to be Funded	2059/Year 47 Estimated Budget	2060/Year 48 Activity to be Funded	2060/Year 48 Estimated Budget	2061/Year 49 Activity to be Funded	2061/Year 49 Estimated Budget	2062/Year 50 Activity to be Funded	2062/Year 50 Estimated Budget	2063/Year 51 Activity to be Funded	2063/Year 51 Estimated Budget	2064/Year 52 Activity to be Funded	2064/Year 52 Estimated Budget	2065/Year 53 Activity to be Funded	2065/Year 53 Estimated Budget	2066/Year 54 Activity to be Funded	2066/Year 54 Estimated Budget	2067/Year 55 Activity to be Funded	2067/Year 55 Estimated Budget	2068/Year 56 Activity to be Funded	2068/Year 56 Estimated Budget	2069/Year 57 Activity to be Funded	2069/Year 57 Estimated Budget	2070/Year 58 Activity to be Funded	2070/Year 58 Estimated Budget	2071/Year 59 Activity to be Funded	2071/Year 59 Estimated Budget	2072/Year 60 Activity to be Funded	2072/Year 60 Estimated Budget	2073/Year 61 Activity to be Funded	2073/Year 61 Estimated Budget	2074/Year 62 Activity to be Funded	2074/Year 62 Estimated Budget	2075/Year 63 Activity to be Funded	2075/Year 63 Estimated Budget	2076/Year 64 Activity to be Funded	2076/Year 64 Estimated Budget	2077/Year 65 Activity to be Funded	2077/Year 65 Estimated Budget	2078/Year 66 Activity to be Funded	2078/Year 66 Estimated Budget	2079/Year 67 Activity to be Funded	2079/Year 67 Estimated Budget	2080/Year 68 Activity to be Funded	2080/Year 68 Estimated Budget	2081/Year 69 Activity to be Funded	2081/Year 69 Estimated Budget	2082/Year 70 Activity to be Funded	2082/Year 70 Estimated Budget	2083/Year 71 Activity to be Funded	2083/Year 71 Estimated Budget	2084/Year 72 Activity to be Funded	2084/Year 72 Estimated Budget	2085/Year 73 Activity to be Funded	2085/Year 73 Estimated Budget	2086/Year 74 Activity to be Funded	2086/Year 74 Estimated Budget	2087/Year 75 Activity to be Funded	2087/Year 75 Estimated Budget	2088/Year 76 Activity to be Funded	2088/Year 76 Estimated Budget	2089/Year 77 Activity to be Funded	2089/Year 77 Estimated Budget	2090/Year 78 Activity to be Funded	2090/Year 78 Estimated Budget	2091/Year 79 Activity to be Funded	2091/Year 79 Estimated Budget	2092/Year 80 Activity to be Funded	2092/Year 80 Estimated Budget	2093/Year 81 Activity to be Funded	2093/Year 81 Estimated Budget	2094/Year 82 Activity to be Funded	2094/Year 82 Estimated Budget	2095/Year 83 Activity to be Funded	2095/Year 83 Estimated Budget	2096/Year 84 Activity to be Funded	2096/Year 84 Estimated Budget	2097/Year 85 Activity to be Funded	2097/Year 85 Estimated Budget	2098/Year 86 Activity to be Funded	2098/Year 86 Estimated Budget	2099/Year 87 Activity to be Funded	2099/Year 87 Estimated Budget	2100/Year 88 Activity to be Funded	2100/Year 88 Estimated Budget	2101/Year 89 Activity to be Funded	2101/Year 89 Estimated Budget	2102/Year 90 Activity to be Funded	2102/Year 90 Estimated Budget	2103/Year 91 Activity to be Funded	2103/Year 91 Estimated Budget	2104/Year 92 Activity to be Funded	2104/Year 92 Estimated Budget	2105/Year 93 Activity to be Funded	2105/Year 93 Estimated Budget	2106/Year 94 Activity to be Funded	2106/Year 94 Estimated Budget	2107/Year 95 Activity to be Funded	2107/Year 95 Estimated Budget	2108/Year 96 Activity to be Funded	2108/Year 96 Estimated Budget	2109/Year 97 Activity to be Funded	2109/Year 97 Estimated Budget	2110/Year 98 Activity to be Funded	2110/Year 98 Estimated Budget	2111/Year 99 Activity to be Funded	2111/Year 99 Estimated Budget	2112/Year 100 Activity to be Funded	2112/Year 100 Estimated Budget																																																																																																																																																																																																																																																																																																																																																																																																				
Tamaya/Nisqually Confluence Acquisition	11-NEARSHORE-1031	Completed 2011	Acquisition for Protection	Acquire for permanent protection approximately 93 acres of riparian property along Lower Tamaya Creek and the confluence of the two streams. The property is adjacent to riparian property already owned by the applicant, and will expand the block of protected Nisqually River riparian property by approximately 1/4 river miles. It will also permanently protect the lower 44.88 miles of Tamaya Creek, an important tributary stream to the Nisqually River.	2	2	Degraded Habitat Floodplain Connectivity and Function, Degraded Habitat Channel Structure and Complexity, Degraded Habitat Riparian Areas and LWD Recruitment, Degraded Habitat Water Quality	2001 Nisqually-Chinook Recovery Plan	Riparian, Wetland, Wetland/Stream/Overwash	Chinook	Chum (Secondary Species), Coho (Secondary Species), Pink (Secondary Species), Steelhead (Secondary Species)	Completed	2013/15	2013/15	2014/16	2014/16	2015/17	2015/17	2016/18	2016/18	2017/19	2017/19	2018/20	2018/20	2019/21	2019/21	2020/22	2020/22	2021/23	2021/23	2022/24	2022/24	2023/25	2023/25	2024/26	2024/26	2025/27	2025/27	2026/28	2026/28	2027/29	2027/29	2028/30	2028/30	2029/31	2029/31	2030/32	2030/32	2031/33	2031/33	2032/34	2032/34	2033/35	2033/35	2034/36	2034/36	2035/37	2035/37	2036/38	2036/38	2037/39	2037/39	2038/40	2038/40	2039/41	2039/41	2040/42	2040/42	2041/43	2041/43	2042/44	2042/44	2043/45	2043/45	2044/46	2044/46	2045/47	2045/47	2046/48	2046/48	2047/49	2047/49	2048/50	2048/50	2049/51	2049/51	2050/52	2050/52	2051/53	2051/53	2052/54	2052/54	2053/55	2053/55	2054/56	2054/56	2055/57	2055/57	2056/58	2056/58	2057/59	2057/59	2058/60	2058/60	2059/61	2059/61	2060/62	2060/62	2061/63	2061/63	2062/64	2062/64	2063/65	2063/65	2064/66	2064/66	2065/67	2065/67	2066/68	2066/68	2067/69	2067/69	2068/70	2068/70	2069/71	2069/71	2070/72	2070/72	2071/73	2071/73	2072/74	2072/74	2073/75	2073/75	2074/76	2074/76	2075/77	2075/77	2076/78	2076/78	2077/79	2077/79	2078/80	2078/80	2079/81	2079/81	2080/82	2080/82	2081/83	2081/83	2082/84	2082/84	2083/85	2083/85	2084/86	2084/86	2085/87	2085/87	2086/88	2086/88	2087/89	2087/89	2088/90	2088/90	2089/91	2089/91	2090/92	2090/92	2091/93	2091/93	2092/94	2092/94	2093/95	2093/95	2094/96	2094/96	2095/97	2095/97	2096/98	2096/98	2097/99	2097/99	2098/100	2098/100	2099/101	2099/101	2100/102	2100/102	2101/103	2101/103	2102/104	2102/104	2103/105	2103/105	2104/106	2104/106	2105/107	2105/107	2106/108	2106/108	2107/109	2107/109	2108/110	2108/110	2109/111	2109/111	2110/112	2110/112	2111/113	2111/113	2112/114	2112/114	2113/115	2113/115	2114/116	2114/116	2115/117	2115/117	2116/118	2116/118	2117/119	2117/119	2118/120	2118/120	2119/121	2119/121	2120/122	2120/122	2121/123	2121/123	2122/124	2122/124	2123/125	2123/125	2124/126	2124/126	2125/127	2125/127	2126/128	2126/128	2127/129	2127/129	2128/130	2128/130	2129/131	2129/131	2130/132	2130/132	2131/133	2131/133	2132/134	2132/134	2133/135	2133/135	2134/136	2134/136	2135/137	2135/137	2136/138	2136/138	2137/139	2137/139	2138/140	2138/140	2139/141	2139/141	2140/142	2140/142	2141/143	2141/143	2142/144	2142/144	2143/145	2143/145	2144/146	2144/146	2145/147	2145/147	2146/148	2146/148	2147/149	2147/149	2148/150	2148/150	2149/151	2149/151	2150/152	2150/152	2151/153	2151/153	2152/154	2152/154	2153/155	2153/155	2154/156	2154/156	2155/157	2155/157	2156/158	2156/158	2157/159	2157/159	2158/160	2158/160	2159/161	2159/161	2160/162	2160/162	2161/163	2161/163	2162/164	2162/164	2163/165	2163/165	2164/166	2164/166	2165/167	2165/167	2166/168	2166/168	2167/169	2167/169	2168/170	2168/170	2169/171	2169/171	2170/172	2170/172	2171/173	2171/173	2172/174	2172/174	2173/175	2173/175	2174/176	2174/176	2175/177	2175/177	2176/178	2176/178	2177/179	2177/179	2178/180	2178/180	2179/181	2179/181	2180/182	2180/182	2181/183	2181/183	2182/184	2182/184	2183/185	2183/185	2184/186	2184/186	2185/187	2185/187	2186/188	2186/188	2187/189	2187/189	2188/190	2188/190	2189/191	2189/191	2190/192	2190/192	2191/193	2191/193	2192/194	2192/194	2193/195	2193/195	2194/196	2194/196	2195/197	2195/197	2196/198	2196/198	2197/199	2197/199	2198/200	2198/200	2199/201	2199/201	2200/202	2200/202	2201/203	2201/203	2202/204	2202/204	2203/205	2203/205	2204/206	2204/206	2205/207	2205/207	2206/208	2206/208	2207/209	2207/209	2208/210	2208/210	2209/211	2209/211	2210/212	2210/212	2211/213	2211/213	2212/214	2212/214	2213/215	2213/215	2214/216	2214/216	2215/217	2215/217	2216/218	2216/218	2217/219	2217/219	2218/220	2218/220	2219/221	2219/221	2220/222	2220/222	2221/223	2221/223	2222/224	2222/224	2223/225	2223/225	2224/226	2224/226	2225/227	2225/227	2226/228	2226/228	2227/229	2227/229	2228/230	2228/230	2229/231	2229/231	2230/232	2230/232	2231/233	2231/233	2232/234	2232/234	2233/235	2233/235	2234/236	2234/236	2235/237	2235/237	2236/238	2236/238	2237/239	2237/239	2238/240	2238/240	2239/241	2239/241	2240/242	2240/242	2241/243	2241/243	2242/244	2242/244	2243/245	2243/245	2244/246	2244/246	2245/247	2245/247	2246/248	2246/248	2247/249	2247/249	2248/250	2248/250	2249/251	2249/251	2250/252	2250/252	2251/253	2251/253	2252/254	2252/254	2253/255	2253/255	2254/256	2254/256	2255/257	2255/257	2256/258	2256/258	2257/259	2257/259	2258/260	2258/260	2259/261	2259/261	2260/262	2260/262	2261/263	2261/263	2262/264	2262/264	2263/265	2263/265	2264/266	2264/266	2265/267	2265/267	2266/268	2266/268	2267/269	2267/269	2268/270	2268/270	2269/271	2269/271	2270/272	2270/272	2271/273	2271/273	2272/274	2272/274	2273/275	2273/275	2274/276	2274/276	2275/277	2275/277	2276/278	2276/278	2277/279	2277/279	2278/280	2278/280	2279/281	2279/281	2280/282	2280/282	2281/283	2281/283	2282/284	2282/284	2283/285	2283/285	2284/286	2284/286	2285/287	2285/287	2286/288	2286/288	2287/289	2287/289	2288/290	2288/290	2289/291	2289/291	2290/292	2290/292	2291/293	2291/293	2292/294	2292/294	2293/295	2293/295	2294/296	2294/296	2295/297	2295/297	2296/298	2296/298	2297/299	2297/299	2298/300	2298/300	2299/301	2299/301	2300/302	2300/302	2301/303	2301/303	2302/304	2302/304	2303/305	2303/305	2304/306	2304/306	2305/307	2305/307	2306/308	2306/308	2307/309	2307/309	2308/310	2308/310	2309/311	2309/311	

Major Strategy Level (1-habitat)	Initiative (Level 2)	Project (Level 3)	ID#	Project Status	Project Type	Plan Category	Project Name	Project Description	Priority Area	Principles modifier	Comments on modifier	Priority tier of project	Limiting Factors	Reference Document for limiting factor	Habitat Type	Activity Type and Project Performance	Primary Species Benefiting	Secondary Species Benefiting	HWS Project Status	2013/Year 1 Activity to be Funded	2013/Year 1 Estimated Budget	2014/Year 2 Activity to be Funded	2014/Year 2 Estimated Budget	2015/Year 3 Activity to be Funded	2015/Year 3 Estimated Budget	2016/Year 4 Activity to be Funded	2016/Year 4 Estimated Budget	2017/Year 5 Activity to be Funded	2017/Year 5 Estimated Budget	2018/Year 6 Activity to be Funded	2018/Year 6 Estimated Budget	Local Share or other Funding	Source of funds (FARL, SFRS, other)	Unfunded Need	Project Name	11-MSDC-1000		
Habitat Protection	NLT property stewardship/natural resource management	Habitat Protection	11-MSDC-1007	Active	Habitat Protection	Non-capital	Nisqually Land Trust Property Stewardship	By the end of 2009 the Land Trust will own approximately 1500 acres in the catchment-providing section of the Nisqually River. It is intended to have the resources to continue to manage the properties for protection of their habitat value. In total, then, the annual stewardship costs will be approximately \$58,125, or about \$174,375 for the 2009-2011 period. Currently, NLT has a small endowment that will generate approximately \$3,000 per year for stewardship. In addition for general support of volunteer coordination and education associated with stewardship activities, NLT estimates it needs an additional \$10,000/yr to support that work.	2		protection of priority high priority areas.	2	Degraded Habitat Floodplain Connectivity and Function, Degraded Habitat Riparian Areas and LWD Recruitment, Degraded Habitat Water Quality, Degraded Habitat Stream Substrate, Degraded Habitat Eelgrass and Nearshore Marine	2001 Nisqually Chinook Recovery Plan	Riparian	NA	Chinook	Cutthroat Secondary Species, Chin (Secondary Species), Coho (Secondary Species), Pink (Secondary Species), Steelhead (Secondary Species)	Monitoring	Monitoring and maintenance	60000	60000	Monitoring and maintenance	60000	Monitoring and maintenance	60000	Monitoring and maintenance	60000	Monitoring and maintenance	60000	12/31/2020	Nisqually Land Trust	480000	0	Nisqually Land Trust	420000	Nisqually Land Trust Property Stewardship	11-MSDC-1007
			11-ESTUARY-1005	Active	Habitat Protection	Non-Capital	Protection Enforcement on Nisqually Wildlife Refuge (OW, 1.2)	Protect Nisqually National Wildlife Refuge lands from unauthorized human disturbance. Over 0.5 FTE Refuge Enforcement Officer (\$14,100 annual cost)	1	2	Does not address limiting factor and minor problem for salmon	3		Salmon and Steelhead Limiting Factors WMA 11, Nisqually NWR Final Comprehensive Conservation Plan, EOT analysis	Estuary (River Delta)	Habitat Protection (3000 ac)	Chinook	Cutthroat Secondary Species, Chin (Secondary Species), Coho (Secondary Species), Pink (Secondary Species), Steelhead (Secondary Species)	Conceptual	Support of 0.5 FTE wildlife enforcement officer	14200	14200	Support of 0.5 FTE wildlife enforcement officer	14200	Support of 0.5 FTE wildlife enforcement officer	14200	Support of 0.5 FTE wildlife enforcement officer	14200	12/31/2020	US Fish & Wildlife Service	111000	0	Not Yet Funded	111000	Protection Enforcement on Nisqually Wildlife Refuge (OW, 1.2)	11-ESTUARY-1005		
			11-MSDC-1017	Active	Habitat Protection	Community Forest Initiative	Community Forest Initiative	The Nisqually Land Trust, Mount Rainier National Forest, and the Northwest National Resource Group propose to develop a plan for creation of a community forest in the Nisqually Watershed. A community forest is a forest that is owned and managed by a municipal entity, nonprofit organization, or other such group on behalf of a community. The community participates in management decisions, and the forest is managed to provide a wide of benefits, typically including sustainable forestry, recreation, education, and environmental benefits such as clean water and habitat. This project will identify the key ownership and management partners, determine the broad outline of what lands the forest should encompass and how they should be managed, and make initial approaches to potential agreements.	2		Degraded Habitat Water Quality		Upland	Chinook	Cutthroat Secondary Species, Chin (Secondary Species), Coho (Secondary Species), Pink (Secondary Species), Steelhead (Secondary Species)	Feasibility Pending	Assessment	40000	40000	business plan	50000	acquisition support	28000	28000	12/31/20	Nisqually Land Trust	120000	120000	National Park Service, EPA	0	Community Forest Initiative	11-MSDC-1017						
	Stormwater Impact Reduction	Estowville Stormwater Reduction Project	11-CHOP-1009	Active	Restoration Projects	Capital	Estowville Stormwater Reduction Project	Work with Town of Estowville to update stormwater plan and actively implement rain garden challenge by installing 30 rain gardens annually. Supports the Stewardship Partners WQI Education campaign to install 20,000 Rain Gardens in Puget Sound by 2016.	2		Degraded Habitat Water Quality, Water Quantity, Stream Substrate	2		2001 Nisqually Chinook Recovery Plan	Water Quality	Chinook, Coho, Steelhead, Rainbow	Cutthroat Secondary Species, Pink (Secondary Species), River Lamprey	Active	Design/Construction	50000	50000	Design/Construction	50000	Design/Construction	50000	Design/Construction	50000	Design/Construction	50000	12/31/2016	Stewardship Partners / Town of Estowville	120000	50000	Community Salmon Fund, Nisqually Tribe Charitable Fund,	100000	Estowville Stormwater Reduction Project	11-CHOP-1009	
			11-CHOP-1011	Active	Habitat Protection/Future Habitat Project Development	Non-Capital	Estowville Stormwater Management Plan Update	The Town of Estowville will update its stormwater management plan. The update will have a special focus on identifying ways to incorporate retrofits and low impact development to infiltrate and treat the greatest possible percentage of stormwater.	2		Degraded Habitat Water Quality, Water Quantity, Stream Substrate	2		2001 Nisqually Chinook Recovery Plan	Water Quality	Chinook, Coho, Steelhead, Rainbow	Cutthroat Secondary Species, Pink (Secondary Species), River Lamprey	Active	Data gathering/Planning	100000	100000	planning	40000	40000	12/31/13	Nisqually Indian Tribe / Town of Estowville	140000	140000	Funded - EPA Tribal Assistance, Town of Estowville local funds	0	Estowville Stormwater Planning	11-CHOP-1011						
			11-MSDC-1018	Active	Restoration Projects	Capital	Street Edge Alternative (SEA) Street	The "SEA Street" type retrofit will convert one block of a Town of Estowville street into a porous pavement and rain garden in the right-of-way to infiltrate stormwater runoff. Projects in the right-of-way provide a model for project owners and developers in South Puget Sound. This SEA Street will be complete with rain gardens in the public right-of-way to capture any excess stormwater runoff from the street, sidewalks, and driveway.	2		Degraded Habitat Water Quality, Water Quantity, Stream Substrate	2		2001 Nisqually Chinook Recovery Plan	Activity Type - Upland Habitat, Water development	Chinook, Coho, Steelhead, Rainbow	Cutthroat Secondary Species, Pink (Secondary Species), River Lamprey	Conceptual	Design	50000	50000	Construction	400000	400000	12/31/2015	Stewardship Partners / Town of Estowville	450000	0	Not Yet Funded	450000	Street Edge Alternative (SEA) Street	11-MSDC-1018						
	Basin-wide Habitat Acquisition	Upper Watershed land properties protection	11-MSDC-1004	Active	Acquisition for Protection	Capital	Upper Watershed Small Properties Protection	Acquire small properties along the highest priority streams in the upper watershed, Chip Creek and the Mashed River. Projects would focus on areas with intact riparian function and stream meander zone, and seek to block with other parcels already in protected status.	2		Degraded Habitat Floodplain Connectivity and Function, Degraded Habitat Riparian Areas and LWD Recruitment, Degraded Habitat Water Quality, Degraded Habitat Stream Substrate, Degraded Habitat Eelgrass and Nearshore Marine	2		2001 Nisqually Chinook Recovery Plan	Riparian	Activity Types - Acquisition/Easements/Leases, Streambank or riparian protected (Mile)	Chinook	Cutthroat Secondary Species, Coho (Secondary Species), Pink (Secondary Species), Steelhead (Secondary Species)	Acquisition	150000	150000	acquisition	150000	acquisition	150000	acquisition	150000	12/31/2020	Nisqually Land Trust	470000	0	TBD	470000	Upper Watershed Small Properties Protection	11-MSDC-1004			
			11-OUTREACH-1001	Active	Outreach and Education	Non-Capital	Nisqually River Education Project	The Nisqually River Education Project (NREP) brings students into the watershed for field-based environmental science experiences and habitat restoration projects that benefit both the classroom curriculum and the river habitat. NREP has the mission of creating students who are stewards of the Nisqually River watershed and the water resources in their communities.	2		Outreach and Education	2		2001 Nisqually Chinook Recovery Plan	Outreach and Education	School children involvement	70000	70000	School children involvement	50000	School children involvement	50000	School children involvement	50000	12/31/2020	Nisqually Foundation / NREP	280,000	10000	EPA	270000	Nisqually River Education Project	11-OUTREACH-1001						
	Community Outreach	Nisqually Stream Stewards	Nisqually Stream Stewards	11-OUTREACH-1003	Active	Outreach and Education	Non-Capital	Nisqually Stream Stewards	Teach Nisqually River Watershed residents about stream health and involve residents in monitoring and improving the health of their local streams. Discuss environmental awareness issues and information with those who are in the program, so that they can apply that learning to their own lives and share the knowledge with others.	2			2		2001 Nisqually Chinook Recovery Plan	Outreach and Education	Public Outreach, Education, Volunteer Recruitment, Training, Tours, Salmon Habitat Restoration Activities	70000	70000	Public Outreach, Education, Volunteer Recruitment, Training, Tours, Salmon Habitat Restoration Activities	70000	Public Outreach, Education, Volunteer Recruitment, Training, Tours, Salmon Habitat Restoration Activities	70000	Public Outreach, Education, Volunteer Recruitment, Training, Tours, Salmon Habitat Restoration Activities	70000	Public Outreach, Education, Volunteer Recruitment, Training, Tours, Salmon Habitat Restoration Activities	70000	Public Outreach, Education, Volunteer Recruitment, Training, Tours, Salmon Habitat Restoration Activities	70000	210,000	70000	Tribe	140000	Nisqually Stream Stewards	11-OUTREACH-1003			
				11-OUTREACH-1004	Active	Outreach and Education	Non-Capital	Salmon Safe Certification Program	Salmon-Safe certification is a labeling and marketing program to recognize local agricultural landowners as well as other land uses (corporate campuses, industrial sites, residential development and golf courses) that protect water quality and habitat benefiting native salmon and other wildlife as well as overall watershed health. The program evaluates practices to protect streams and wetlands, prevent soil erosion, practice water conservation, minimize chemical use, promote native biodiversity, and manage storm water to prevent polluted runoff. Stewardship Partners coordinates independent third party certification inspections and administers a variety of marketing and promotional activities in support of Salmon-Safe certified operations.	2		Outreach and Education	2		2001 Nisqually Chinook Recovery Plan	Outreach and Education	Certification, promotions, monitoring and promotions	15,000	15,000	Certification, promotions, monitoring and promotions	15,000	Certification, promotions, monitoring and promotions	15,000	Certification, promotions, monitoring and promotions	15,000	45,000	0	Not Yet Funded	45000	Salmon-Safe Certification Program	11-OUTREACH-1004							
Landowner Incentives		FSC market development	11-OUTREACH-1005	Inactive	Outreach and Education	Non-capital	FSC Market Development	NRG and partners will work to develop the market for Forest Stewardship Council (FSC) certified and Non-FSC Sustainable brand wood products from local forests, stimulate local small scale manufacturing, and increase local use of local products. This will increase community investment in and understanding of local sustainable forestry and provide incentives for local forest owners leading to improved forest practices on the ground and improved local economies.	2		Outreach and Education	2		NCIP	Outreach and Education	Manufacturer and Public Outreach, Education, and Tours	21,897	21,897	Manufacturer and Public Outreach, Education, and Tours	19,297	Manufacturer and Public Outreach, Education, and Tours	18,457	18,457	18,457	0	Not Yet Funded	0	FSC Market Development	11-OUTREACH-1005									
			11-OUTREACH-1006	Inactive	Outreach and Education	Non-capital	Forest Landowner Certification Program	The Northwest National Resource Group and partners are working to implement Forest Stewardship Council sustainable forestry certification within the Nisqually watershed. Sustainable forestry certification can provide an economic incentive as well as third party verification for practices that lead to improved water quality and wildlife habitat on and downstream from working forests. The goal is to certify approximately 20 forest landowners per year in the watershed.	2		Outreach and Education	2		NCIP	Outreach and Education	Forest Landowner Outreach and Certification	51,384	51,384	Forest Landowner Outreach and Certification	19,297	Forest Landowner Outreach and Certification	18,457	18,457	0	Not Yet Funded	0	Forest Landowner Certification Program	11-OUTREACH-1006										
			11-OUTREACH-1007	Inactive	Outreach and Education	Non-Capital Project	Ecosystem Services Market Development	NRG and partners will work to develop the market for carbon offsets and water quality within the Nisqually Watershed. Carbon offset contracts can provide long term development restrictions and guarantee certified forest management for 100 years. Water quality trading can also provide for specific water quality improvements on forest land. Both markets provide incentives for improved practices leading to better habitat and improved water quality and regular liquidity beyond regulatory requirements.	2		Outreach and Education	2		NCIP	Outreach and Education	Carbon Recruitment and Offsets, Water Quality Trading, Framework Development	18,897	18,897	Recruitment and Offsets, Water Quality Trading, Feasibility Study, Funding Source Development	48,297	Recruitment and Offsets, Water Quality Trading, Feasibility Study, Funding Source Development	18,457	18,457	0	Not Yet Funded	0	Ecosystem Services Market Development	11-OUTREACH-1007										
Salmon Research, Monitoring and Evaluation	Salmon Recovery Plan Monitoring	Chinook Plan Habitat Monitoring	11-MSDC-1014	Active	Habitat Project Monitoring	Non-capital	Nisqually Chinook Recovery Habitat Monitoring	Creation and implementation of a watershed-wide habitat and restoration action monitoring plan to assess effect of recovery plan.	1			1	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 Stream Substrate, Degraded Habitat Eelgrass and Nearshore Marine, Degraded Habitat Fish Passage	NA	NA	Chinook	Cutthroat Secondary Species, Coho (Secondary Species), Pink (Secondary Species), Steelhead (Secondary Species)	Ongoing monitoring	Ongoing monitoring	85,000	85,000	Ongoing monitoring	85,000	Ongoing monitoring	85,000	Ongoing monitoring	85,000	12/31/2020	Nisqually Indian Tribe	488240	0	Not Yet Funded	488240	Nisqually Chinook Recovery Habitat Monitoring	11-MSDC-1014			

Newly added projects (YELLOW)						
Active projects (ORANGE)						
Complete projects (BLUE)						
New information/data to existing projects (Purple)						
2012 Status	Project Type	Plan Category	Project Name	Project Description	Priority Area	Principles modifier
Active	Harvest Management Support	New Capital	Trips Commercial Fishery Monitoring	Monitoring the trips commercial fishery is critical for stock assessment and adaptive management. Fishery monitoring provides fundamental data for management including but not limited to NWR and HBR abundance, timing, and composition. Improved fishery statistics that meet regulatory reporting needs.		
Active	Harvest Management Support	New Capital	Improved Selective Commercial Fishing Gear	Selective commercial fishing gear is essential to increase hatchery Chinook harvest rates while decreasing impact on natural origin fish. Research for using commercial selective fishing gear types (e.g. Research assistance with purchase of new gear) will be used to give the fisher the opportunity to catch Chinook while engaging NWRs from NWRs and releasing NWRs fish.		
Active	Harvest Management Support	New Capital	In-Cover Credit Survey	Monitor the in-cover credit fishery to more accurately assess the impact on stocked and unstocked natural origin and hatchery origin salmon.		
Active	Hatchery	Capital	Mission West	Monitor the in-cover credit fishery to more accurately assess the impact on stocked and unstocked natural origin and hatchery origin salmon. In order to develop a well-managed credit fishery of Mission Creek, the composition of Hatchery Origin Recruits (HOR) to Natural Origin Recruits (NOR) on the spawning grounds must be determined. A common weir on the lower mainstem will trap all Chinook, enabling the segregation of NWRs from HORs while providing verifiable stock assessment information. Research will be collected at the weir for the integrated hatchery program.		
Planned	Hatchery	Capital	Integration Program Piled Construction	Modify pond at Clear Creek Hatchery to provide ability to integrate natural origin Chinook with hatchery stock.		
Planned	Hatchery	New Capital	SWT Integrated Hatchery Program Refinement	Field site tags will be inserted in all Chinook released from the integrated program. WTRD will also have adaptive tags to harvest the hatchery tag program, and the cost will not.		
Active	Stock Management Support	New Capital	Nasqually Chinook Stock Management Plan	The Nasqually Chinook Stock Management Plan will guide Chinook management, include management of the weir, to ensure that escapement and NWR catch composition goals are met.		
Active	Stock Monitoring Support	New Capital	EDY Habitat Abundance Surveys	EDY habitat abundance surveys are needed to assess the response of the Chinook population to habitat changes caused by long-term habitat restoration projects or incorporate more accurate data. Data from habitat monitoring and assessment projects will be collected and used to run the model updates. Model updates will be coordinated with the weir program.		
Active	Stock Monitoring Support	New Capital	Chinook Spawner Surveys and Mark-recapture	Chinook spawner surveys are essential for determining the abundance, spatial and temporal distribution, and composition of spawning Chinook. A mark-recapture study will be done to estimate the efficacy of the weir. All fish passed at the weir will be marked and spawner surveys will be based on historical abundance in Bannock, Bannock Lake, etc.		
Planned	Stock Monitoring Support	New Capital	Chinook Spawner Surveys Below the Weir	It is important to document the number and composition of fish that spawn below the weir because the progress of these spawners will affect an unmarked fish and affect stock recovery. Surveys will assess weir-related effects and impact on spawning Chinook.		
Active	Stock Monitoring Support	New Capital	Downstream Weir Tagging	EDYW installed a downstream migrant tag on the Nasqually River in January 2008. The tag will enable managers to determine the abundance, timing, and diversity of migrating juvenile salmonids. When combined with adult spawner abundance the tag will also give us the ability to estimate the productivity of the watershed.		
Active	Stock Monitoring Support	New Capital	Stock Analysis	Chinook stock analysis provides key information on Chinook life history metrics including growth and residence in key habitats like the estuary.		
Active	Stock Monitoring Support	New Capital	Stockhead Spawner Surveys	Stockhead spawner surveys are essential for determining the abundance, spatial and temporal distribution, and composition of spawning Chinook.		
Planned	Stock Monitoring Support	New Capital	Infestation Counter at Centralia Weir	Infestation, including Chinook and steelhead, that occurs in the upper Nasqually River and in Deep Creek and the Mather River meet twice through the fish ladder at the Centralia Weir Dam. This creates an opportunity to install a fish counter. A fish counter will provide verifiable stock assessment data, especially the method that uses a time of high turbidity in the Nasqually River which prevents accurate data collection.		
Planned	Stock Monitoring Support	New Capital	Nasqually Chinook penstock	Flow gauging samples of Chinook passed at weir (and any recovered fish given the weir) will be used to assess and predict an estimate of Chinook at the management level. This will be used to estimate weir efficiency and the effective number of broodfish.		
Planned	Stock Monitoring Support	New Capital	Life-Stream stock assessment	Develop an updated Chinook management tool to improve post-weir escapement estimates for Nasqually life stream.		
Active	Watershed Plan Implementation & Coordination	New Capital	Nasqually Chinook Recovery Project Monitoring	The Nasqually Chinook Recovery Project Monitoring System (NCRMS) is currently being developed with adaptive management framework in order to gauge the effectiveness of the restoration and conservation initiatives and to provide planning guidance. A critical component of the adaptive management plan is robust estimates of the status and trends in indicators of watershed health and salmon recovery. The goal of this collaborative monitoring project is to collect status and trends habitat data and apply it to adaptive management decision-making in the Nasqually Watershed.		
Active	Watershed Plan Implementation & Coordination	New Capital	Adaptive Management Plan Implementation	The Nasqually Chinook Adaptive Management Framework Implementation Project will provide the population modeling, habitat characterization, and stock status update support necessary to complete an adaptive management cycle.		
Active	Watershed Plan Implementation & Coordination	New Capital	Restoration Budget			
Active	Watershed Plan Implementation & Coordination	New Capital	Lead Entity Coordinator			
Active	Watershed Plan Implementation & Coordination	New Capital	Salmon Recovery Project Technician			
Active	Watershed Plan Implementation & Coordination	New Capital	Salmon Recovery Program Manager			
Active	Watershed Plan Implementation & Coordination	New Capital	GIS support for plan development/implementation			
Active	Watershed Plan Implementation & Coordination	New Capital	Development and Coordination of Adaptive Management Program			
Active	Watershed Plan Implementation & Coordination	New Capital	Monitor and research key uncertainties in recovery plan			
Active	Watershed Plan Implementation & Coordination	New Capital	Complete Adaptive Management plan and database			
Planned	Watershed Plan Implementation & Coordination	New Capital	Adaptive Management database	Database for storing and sharing data needed for adaptive management, including data from the new weir.		
Active	Watershed Plan Implementation & Coordination	New Capital	Stockhead Recovery Plan	Over the next 3 years we plan to develop a stockhead recovery plan. The plan will highlight habitat actions not covered in the Chinook plan, incorporate current research to carry out the recovery, update monitoring efforts, and detail research and stock management needs.		
Active	Other	New Capital	Multi-species Nasqually Salmon Plan	EDY and other needs to publish a multi-species Nasqually salmon recovery plan that addresses all four APLs. This includes finalization of study objectives and an action plan to carry out the study (EDY). Puget Sound steelhead were listed as threatened in 2007. Preliminary information suggests that steelhead are experiencing poor survival as they migrate through Puget Sound. This project utilizes acoustic tags and recovers track individual steelhead as they move through the lower Nasqually river, estuary, and Puget Sound in order to determine migration routes and timing.		
Active	Watershed Plan Implementation & Coordination	New Capital	Chinook Recovery Tracking Program	Develop short-term salmon performance targets based on habitat potential and measured stock status to track progress/efforts, and detail research and stock management needs.		

