



# **SKAGIT COUNTY**

## **HABITAT IMPROVEMENT PLAN**

**Public Works Department**

**Natural Resources Division**



**August 2012**

## **Mission**

***To create and advance restoration strategies that support Skagit County goals for promoting the health of our watershed, improved water quality and enhanced habitat for salmon.***

## **Background**

In 1995, the Skagit County Board of Commissioners (BCC) established the Clean Water (Shellfish) Protection District to address bacterial pollution in Samish Bay and improve the quality of local shellfish beds.

In March 1999, the National Marine Fisheries Service listed the Puget Sound Chinook as a threatened species under the federal Endangered Species Act (ESA). In response, Skagit County established the Salmon Recovery Fund (Resolution #17429) in 1999 to provide an accounting of financial activities related to salmon recovery project expenditures and revenue collection. The fund (Fund 120) received monies from federal, state and local governments specifically designated for salmon restoration projects. Later, in November 1999, the U.S. Fish and Wildlife Service also listed the Puget Sound Bull Trout as threatened under the ESA.

In 2005, the BCC established the Clean Water Program, allowing for a special assessment to fund activities, programs, and projects aimed at reducing pollution impacting water quality in Skagit County. In doing so, Skagit County designated Fund 120 as the Clean Water Program Fund, and finding the goals of the shellfish protection district and salmon recovery to be similar in scope, designated the fund to be used to protect and restore habitat essential for salmon recovery and to improve water quality for salmon recovery, to protect shellfish, and other beneficial uses of the surface waters of Skagit County. The Clean Water District consists of all areas in unincorporated Skagit County. Resolution #R200050487 designated \$250,000 of the Clean Water fund to be used for habitat restoration projects and acquisitions to be managed by the Skagit County Public Works Department.

In response to the federal listing, watershed groups across Puget Sound drafted Puget Sound Chinook recovery plans for their areas. The National Oceanic and Atmospheric Administration's (NOAA's) National Marine Fisheries Service combined those chapters into a single recovery plan for the region. In June 2005, the regional plan for ESA-listed Puget Sound Chinook was submitted to the NOAA, which then prepared a supplement that clarified and expanded recovery requirements. NOAA finalized these two documents on January 19, 2007. Regional efforts now are concentrated on developing financing plans and monitoring and adaptive management components for implementation. On January 1, 2008 the Puget Sound Partnership became the regional salmon recovery organization.

In 2007, the BCC provided additional direction to the County departments on salmon recovery efforts and on the use of County funds for these efforts via Resolution #R20070499. This resolution directs the Skagit County Public Works Department to:

- Explore funding mechanisms for stand-alone habitat projects, such as the County Clean Water Fund, and submit appropriate budget requests to implement those projects; and
- Identify opportunities for salmon enhancement, especially when engaged in other County operations such as road building, flood control, drainage management, and culvert repair.

The BCC reauthorized the Clean Water Program in 2009 (Resolution #R20090395) for a period of five years (until December 31, 2014). The reauthorization reiterated that a portion of the Clean Water Program funds were to be used for habitat restoration projects and acquisitions.

The National Marine Fisheries Services listed Puget Sound Steelhead, a salmonid, as threatened under the ESA in May 2007. The Puget Sound Partnership began the recovery planning process in 2012. The BCC has not yet provided guidance on this effort.

## **Goals, Objectives and Supporting Activities**

### **Goal 1: Restore Streamside Riparian Land**

Healthy riparian areas along waterways provide multiple benefits to watershed health including filtering of contaminants from stormwater run-off, controlling erosion of soils, (thereby reducing sediment load), reducing stream temperature, and providing habitat for fish. Regulations protecting riparian areas are provided in Skagit County's Critical Areas Ordinance. The Washington State Department of Ecology may also require riparian enhancement when dealing with violations of the Clean Water Act. To improve environmental conditions near fish bearing streams, the Washington State Department of Fish and Wildlife often requires riparian enhancement for work completed near streams, including culvert replacements.

Enhancement of streamside land may include:

- Removing invasive vegetation,
- Planting native streamside vegetation,
- Fish habitat restoration by the installation of large woody debris,
- Installation of livestock exclusion fencing to keep livestock away from streams, and
- Implementation of agricultural Best Management Practices.

To achieve this goal, Skagit County focuses on funding sources that encourage rural property owners to participate in ongoing programs, including Skagit County's Natural Resources Stewardship Program, the emerging Voluntary Stewardship Program, and through the promotion of agricultural best management practices through funding of the Skagit Conservation District and other organizations.

*Purpose:*

By proactively pursuing the protection and improvement of critical areas in our watershed, we help Skagit County remain compliant with the state Growth Management Act (GMA), contribute to improved water quality to upgrade shellfish beds, and provide habitat that enhances recovery of threatened and endangered species.

Funding Sources:

Washington State Department of Ecology

Washington State Recreation and Conservation Office

Skagit County Clean Water Program

Measurements of success:

1. Total area of restored riparian areas along Skagit County streams.
2. Water quality improvements (including water temperature) determined by monitoring data,.
3. Removal of water bodies from Washington State's Water Quality Assessment and 303(d) List
4. Miles of stream riparian planting and livestock fencing installed on Skagit County streams.
5. Progress on riparian milestones for Voluntary Stewardship Program.
6. Resolved Critical Areas Ordinance violations

***Why are we doing this?***

By proactively pursuing the protection and improvement of critical areas in our watershed, we help Skagit County remain compliant with the State GMA, contribute to improved water quality to upgrade shellfish beds, and provide habitat improvements that enhances recovery of threatened species including Puget Sound Chinook, Puget Sound Bull Trout and Puget Sound Steelhead. Riparian forests also provide critical wildlife habitat for migratory songbirds, waterfowl, and a host of other species. Riparian vegetation regulates light and temperature for streams, provides nutrients for aquatic and terrestrial organisms, and maintains biodiversity through habitat and ecological functions. Riparian zones also regulate the flow of water, nutrients, and sediment from upland areas and provide large woody debris, which has a significant impact on in-stream habitat. The distinctive corridors formed by stretches of riparian areas provide a means for plant dispersal and animal movement.

**Goal 2: Enhance Fish Passage under County Roads**

Work collaboratively with tribes, agencies, and non-profit groups to restore and enhance passage for fish and wildlife under Skagit County roads. Identify opportunities for projects with multiple benefits and potential for state and federal funding.

Funding Sources:

Salmon Recovery Funding Board

Skagit County Clean Water Fund

Skagit County Drainage Utility

Skagit County Road Fund

Miscellaneous grant sources

Measurements of Success:

1. Completed projects
2. Improved spawning numbers
3. Linear feet of stream habitat opened above County culverts.

***Why are we doing this?***

Washington State law requires unimpeded fish passage at road crossings. Improved fish passage provides multiple environmental benefits. The primary intent is to provide unimpeded fish access to habitat not currently available due to blockages. Restoring access to blocked habitat is one of the most effective ways to increase the populations of native salmonids and trout, including listed species.

**Goal 3: Coordinate Drainage and Flood damage Reduction with Restoration Efforts**

Identify and construct projects that have multiple benefits and funding sources and correct past practices that are harmful to fish. Incorporate habitat restoration components into drainage projects that involve natural streams. Encourage owners of “at risk” properties to participate in programs such as Hazard Mitigation Grant.

Funding Source:

Drainage Districts

Drainage Utility

Salmon Recovery Funding Board

National Oceanic and Atmospheric Administration

The Nature Conservancy

Hazard Mitigation Grants

Measurements of Success:

1. Completed projects with restoration components that improve drainage.
2. Participation by Skagit County landowners in the Hazard Mitigation Grant programs.

***Why are we doing this?***

Many projects that enhance drainage and flood damage reduction require mitigation. Self-mitigating projects that have multiple benefits make good economic and environmental sense. Many drainage issues are a result of previous poor land use decisions. By working with landowners to explore long term solutions that utilize the stream’s natural processes, we can restore habitat while solving drainage issues and provide an option for landowner of “at-risk” properties to be compensated and move out of harm’s way.

**Goal 4: Participate as an Active Member in Puget Sound Clean-up and Restoration Efforts.**

Coordinate priority projects and programs with regional efforts including Puget Sound Partnership, Local Integrating Organization, U.S. Army Corps of Engineers Skagit River General Investigation, Puget Sound Nearshore General Investigation, and Skagit Chinook Recovery Plan to leverage funding for maximum results. The effort to clean-up Puget Sound requires a coordinated effort with federal, state, and local governments coordinating the prioritization of work.

Funding Sources:

- U. S. Environmental Protection Agency
- Puget Sound Partnership
- Aquatic Lands Enhancement Account
- Estuary and Salmon Restoration Program
- Clean Water Fund

***Why are we doing this?***

The Skagit River is the largest watershed draining into Puget Sound. Skagit County has 229 miles of marine shorelines. Cleaning up and restoring Puget Sound is a high priority of the State of Washington, Indian Tribes, and the federal government. County government is where the rubber hits the road for project and program implementation. The County is the logical lead for many of these efforts.

## **Table of Acronyms**

ALEA	Aquatic Lands Enhancement Account
BCC	Board of County Commissioners
CAO	Critical Areas Ordinance
CCWG	Central Coast Wetlands Group
CWF	Clean Water Fund
CREP	Conservation Reserve Enhancement Program
DD	Dike District
DU	Drainage Utility
EPA	Environmental Protection Agency
ESRP	Endangered Species Recovery Program
FEMA	Federal Emergency Management Agency
FSA	Farm Services Agency
FW	Fish and Wildlife
NOAA	National Oceanic and Atmospheric Administration
PCJV	Pacific Coast Joint Venture
PS	Puget Sound
PSE	Puget Sound Energy
PSNERP	Puget Sound Nearshore Ecosystem Restoration Project
RCO	Recreation and Conservation Office
RF	Road Fund
SCD	Skagit Conservation District
SCL	Seattle City Lights
SCPR	Skagit County Parks and Recreation
SFEG	Skagit Fisheries Enhancement Group
SLT	Skagit Land Trust
SR 20	State Route 20
SRFB	Salmon Recovery Funding Board
SRSC	Skagit River System Cooperative
SWC	Skagit Watershed Council
USIT	Upper Skagit Indian Tribe
WDFW	Washington Department of Fish and Wildlife
WQ	Water Quality

## **Restoration Improvement Plan**

### **Six-Year Project Matrix**

(see next page)





# Skagit County Habitat Improvement Plan

Natural Resources Division, Water Resource Section

Proposed Projects							
Salmon Recovery Funding Board Projects							
Project Title	Justification Documentation	Description	Potential Partners	SC Role	Potential Funding	Estimated Cost	Ranking
Cockreham Island	Chinook Recovery Plan	Buy-outs, levee removal and/or setback, floodplain restoration	USIT, SRSC, WDFW, SLT, PSE, SCL, RCO		SRFB,FEMA, SCL,PSE, SLT,ALEA	\$10,000,000.00	
Cascade Trail	SWC 3-year Plan, Chinook Recovery Plan	Buy-outs, levee removal, floodplain restoration	SCPR, USIT, SRSC, SLT		SRFB, SCPR, ALEA	\$1,500,000.00	
North Fork Bridge	Chinook Recovery Plan	Buy-outs, levee setback, floodplain restoration	DD#22		SRFB,ALEA	\$750,000.00	
South Fork Pole Yard	Chinook Recovery Plan	Buy-outs, levee setback, floodplain restoration	DD#3,		SRFB	\$1,000,000.00	
DD#3 Levee setback - add. channels	Chinook Recovery Plan	Floodplain restoration	DD#3,		ALEA, SRFB	\$300,000.00	
Etach Slough	Chinook Recovery Plan	Open up and restore slough habitat	SRSC		SRFB	\$300,000.00	
Sakshaug Slough(?)		Restore FW slough habitat	SCPR, SRSC, SFEG		SRFB, RCO		
Simik Bay	Chinook Recovery Plan	Restore Tidal Lagoon restoration	SRSC, SCPR		SRFB		
Gilligan Levee	Chinook Recovery Plan	Restore river flow through Gilligan Peninsula	SRSC		SRFB		
Jackman Creek	Chinook Recovery Plan	Dike modification, land acquisition	SLT				
Muddy Creek/Davis Slough	Middle skagit	Improve fish access to Davis slough	SRSC		SRFB		
Non-SRFB Projects							
Project Title	Justification Documentation	Description	Potential Partners	SC Role	Potential Funding	Estimated Cost	Ranking
					DU, SRFB	\$100,000.00	
Lower Wiseman Creek	Wiseman Creek Feasibility Study	Restore Wiseman Creek to Black Slough	SFEG		(Road Fund) (Drainage Fund)	\$50,000.00	
Upper Wiseman Creek	Wiseman Creek Feasibility Study	Alluvial fan creation in Minkler Road area	SFEG			\$1,500,000.00	
Unnamed Trib to Thomas		Reroute Creek off of Kellerher Road			CWF, Road Fund	\$50,000.00	
Juvenile Passage in Fisher Slough Area	Chinook Recovery Plan	Juvenile access to isolated wetland				\$50,000.00	
CREP sites	Hansen Creek Management Plan	Hansen Creek Reach 2 and ?	USIT, SRSC			\$300,000.00	
Voluntary Stewardship Program	Commissioner Resolution	Agricultural CAO Compliance					
Salmon Heritage Program	CAO - Will's idea	Securing conservation easements in upriver Ag lands			(County Bonds)	\$15,000,000.00	
Blue Heron Pocket Estuary (Freestad Lake)	PS Partnership, PSNERP	Restore Pocket Estuary at Samish Island	USIT, SRSC		(Drainage Fund)(Clean water)	\$500,000.00	
Prairie Road/Ware Creek		Move creek out of Prairie road ditch					
Culvert Projects							
Project Title	Justification Documentation	Description	Potential Partners	SC Role	Potential Funding	Estimated Cost	Ranking
Pipeline Road		Coho, Sthd, Cutt passage	SFEG			\$10,000.00	
Dairy Trib.		Coho, Cutt passage					
Tronsdahl Culvert		Coho, Sthd, Cutt passage			(Road Fund) (Drainage Fund)	\$7,000.00	
English Road		Coho, Sthd, Cutt passage				\$100,000.00	
Sorenson Creek		Coho, Sthd, Cutt passage					
Franklin Road		Coho, Sthd, Cutt passage				\$125,000.00	
Dinning Creek		Juv. Coho passage					