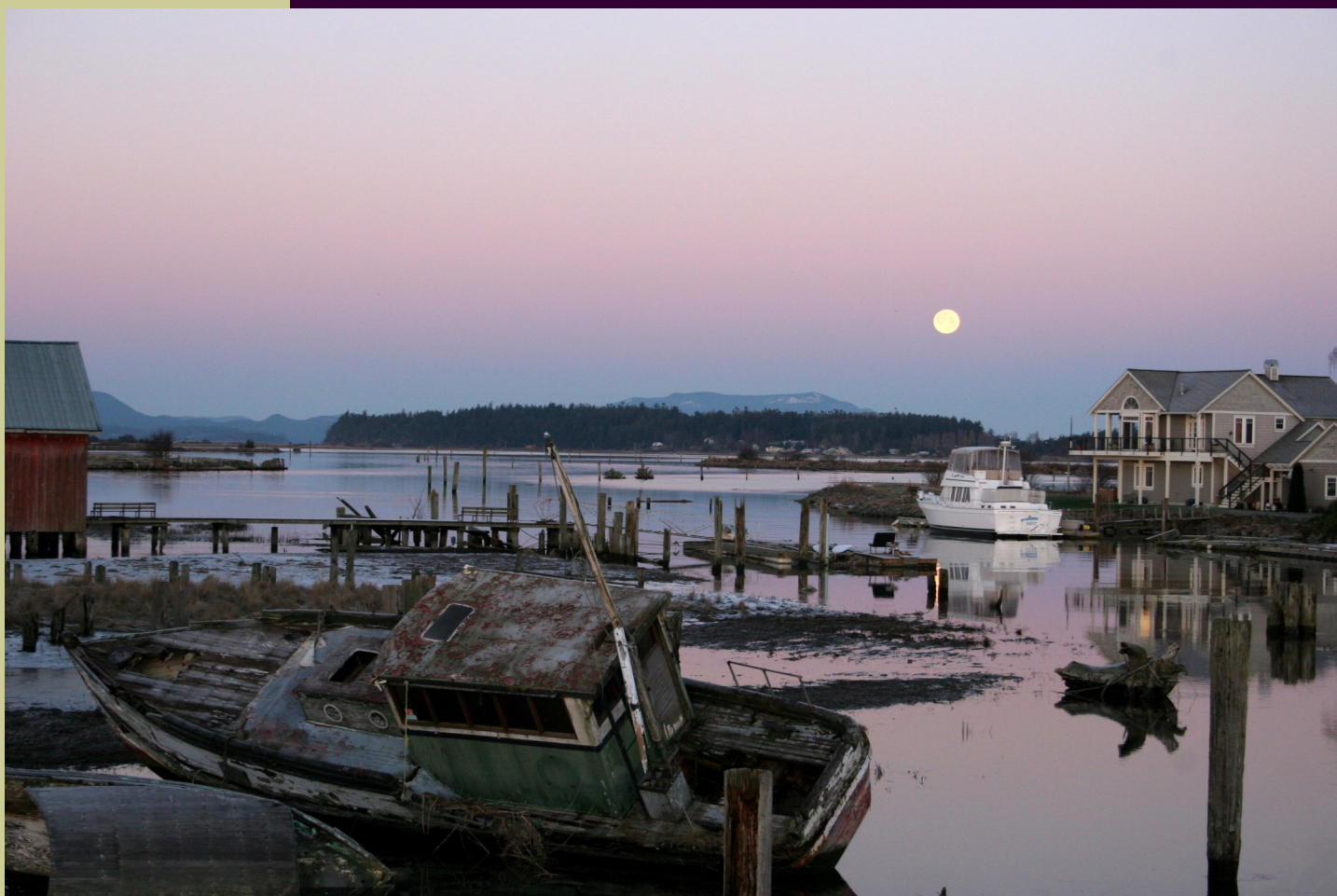




Clean Water Program 2014 Annual Report



***“When we see land as a community
to which we belong, we may begin
to use it with love and respect”***

-Aldo Leopold, 1949



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A Message from the Commissioners

Clean water is everyone’s business. We all need clean water to ensure healthy lives and safe recreation, cleaner stormwater, viable habitat for fish, shellfish, and wildlife. As your commissioners representing you, we are dedicated to ensuring our waters remain clean and safe.

The purpose of this report is to share with you our mission for enhancing water quality for everyone. In these pages you will find the many measures we are taking to implement water quality corrective actions, educate the public and develop programs to involve our community. In addition, the Clean Water Program (CWP) is dedicated to protecting and restoring fish habitat.

We are engaged with our community to improve water quality as we work with tribes, state and local governments, our Skagit Conservation District and numerous conservation organizations to make steady progress.

Our Pollution Identification and Correction Program is producing positive results in the Samish. Our staff and volunteers are dedicated to working with home and property owners to help them be good stewards of this beautiful basin. We encourage you to take part in the ongoing clean water efforts to improve the health of our watersheds and communities.

Sincerely,
 Skagit County Board of Commissioners



Ron Wesen
 District 1

Ken Dahlstedt
 District 2

Lisa Janicki
 District 3

History of the Clean Water Program

The CWP was an expansion of the Clean Water (Shellfish Protection) District (CWD) created in 1995, which was originally designed to reduce bacterial pollution in Samish Bay and improve the quality of local shellfish beds by cleaning up failing septic systems in Edison and Blanchard. From 1999 – 2005, as part of the CWD, Skagit County monitored water quality through the Baseline and Samish Bay Watershed Monitoring Projects. This monitoring revealed continuing fecal coliform pollution in the Samish Basin. Fecal coliform indicates the presence of organisms that can cause diseases such as typhoid fever, viral and bacterial gastroenteritis, and hepatitis A. As a result of the continued bacterial pollution, Skagit County created the Clean Water Program to strengthen fecal coliform bacteria pollution reduction measures, educate the public, control stormwater pollution, and develop a more thorough water-monitoring program.

All of the programs listed within this publication are wholly or partially funded by the CWP and are dedicated towards improving Skagit County’s water quality.

Skagit County Marine Resources Committee

Established in 1999, the Skagit County Marine Resources Committee (SMRC) is one of seven citizen-based advisory committees formed under the congressionally authorized Northwest Straits Marine Conservation Initiative (NWSI), as part of a grassroots effort to protect, enhance, and restore our local marine resources. The Northwest Straits Commission provides regional support and coordination to all seven MRCs. Skagit MRC relies heavily on partnerships and a large volunteer base to accomplish projects and achieve long-term success. SMRC has been primarily supported by federal grant funding through the NWSI and the NWSC, and partly by the Clean Water Program (CWP) and other grant funding administered through the Northwest Straits Foundation, a non-profit organization established to support the Initiative. Below are some of the 2014 highlights:



Forage Fish Habitat Surveys

- **Fidalgo Bay Day:** Over 388 visitors attended the tenth annual Fidalgo Bay Day held on September 13, 2014. This educational event included interpretive walks, educational displays, beach seining demonstration, Shannon Point Marine Center touch tanks, canoe rides, and free samples of shellfish.
- **Salish Sea Stewards:** Skagit MRC developed and implemented a new 40 hour volunteer citizen science training program which trained 11 new volunteers who contributed over 280 hours of volunteer service.
- **Beach Naturalist:** Skagit MRC developed and implemented a ~20 hour volunteer interpretive training program in coordination with Deception Pass State Park. 8 new Beach Naturalists completed the training program and contributed over 200 hours of service educating visitors about the marine environment at Washington Park's Sunset Beach in Anacortes.
- **Oil Spill Response Workshop:** Skagit MRC co-hosted an oil spill response and preparedness workshop with the Northwest Straights Foundation.
- **Ocean Frontiers Film Screening:** Skagit MRC co-hosted two film screenings of this documentary with the Friends of Skagit Beaches.

Marine Habitats Protection and Restoration

- ◆ **Bowman Bay Nearshore Restoration:** Design and removal of 540 lineal feet of unnecessary rock along Bowman Bay shoreline. Design is complete the permitting process is underway. The anticipated start date is September 2015.



Fidalgo Bay Day Beach Seining

- ◆ **Shannon Point Nearshore Restoration:** Skagit MRC is partnering with the Northwest Straights Foundation and the City of Anacortes to remove over 2,500 cubic yards of rock along 770 linear feet of shoreline and restore 15,250 square feet of beach intertidal habitat along Guemes Channel.
- ◆ **Marine Shoreline Protection Assessment:** Skagit MRC partnered with the Skagit Land Trust to conduct a spatial analysis of Skagit County marine shorelines to identify and prioritize the most ecologically valuable private parcels for land protection to maintain critical marine and estuarine ecosystem processes. The report is available on the Skagit MRC website: www.skagitmrc.org.
- ◆ **Olympia Oyster Restoration:** Native oyster restoration in Fidalgo Bay began in 2002 as part of a collaborative effort between the Skagit MRC, Puget Sound Restoration Fund, the Swinomish and Samish tribes, Washington State Department of Natural Resources, and other partners. Pacific oyster shell was applied to enhance the habitat for native oysters in Fidalgo Bay. Volunteers helped distribute over 25 bags of oyster cultch bags and monitored oyster settlement, recruitment, and distribution. Results indicate that the Olympia oyster population in Fidalgo Bay is becoming self-sustaining. The small, dense population of native oysters is thriving and reproducing successfully.

Questions about Skagit County's Annual Water Quality Report and the monitoring program can be directed to Tracy Alker at Tracya@co.skagit.wa.us or (360) 336-9400.

Pollution Identification and Correction (PIC) Program

The mission of the Skagit County's Pollution Identification and Correction (PIC) Program is to protect the public from waterborne illness and other water quality related hazards. Water that is polluted with fecal bacteria has been our primary concern, however PIC methods can be used for nutrients, sediment, temperature and other pollutants. Skagit County's PIC Program has been operating since 2010 and has been successful in reducing levels of fecal coliform bacteria in the Samish Bay watershed.



Crush the Sewage Detecting Dog

Water quality monitoring is the core of any PIC program. Traditionally, sampling sites are identified near the confluence of streams and are monitored on a regular basis. Where high levels of pollutants are found, source identification sampling (sometimes referred to as "bracket sampling") occurs upstream to identify an area where the pollution is coming from. Staff then follow up with site visits to property owners in the focus area to identify the source of pollution, then work with property owners to correct any problems that are found.

Some pollutants are easier to track than others, and determining the source of the pollutant can sometimes be difficult. Some pollutants such as pesticides have their source only in human activities, while others like bacteria and nitrogen may come from human activities or natural sources. Bacteria in water are particularly variable, fluctuating frequently so that two samples taken one after another occasionally have very different results. As such, tracking bacterial pollution often requires several samples through time in order to identify a pattern.

Questions about Skagit County's PIC Program can be directed to Karen DuBose at kdubose@co.skagit.wa.us or (360) 336-9400.



Clean Samish Initiative

The Clean Samish Initiative (CSI) is a partnership between state and local agencies, tribes and volunteers to identify and correct sources of bacterial pollution in the Samish Bay watershed. The partnership was established in 2009 after very high levels of bacteria were discovered in the Samish River in 2008. Led by Skagit County, the CSI partners developed a program to identify and eliminate fecal coliform bacteria sources, with the goal of reducing bacteria levels so that the Samish River meets state water quality standards.

Due to strong community participation and stewardship activities, we are continuing to make progress and are closer to our goal than ever. The concentration of bacteria in storm flows has reduced by 84% since 2010, and the commercial shellfish beds were closed for 40% fewer days in 2014 than in 2010.

In the last year, local landowners have worked with the Skagit Conservation District to install fencing keeping livestock away from the water and implement other best management practices designed to keep pollution out of the water. Over 1700 homeowners in the Samish watershed are up to date on their septic system inspections, and 11 had their septic systems repaired in the last year. Also, local dairies have worked to protect water quality by adding winter manure storage and reducing the collection of water in manured areas.

Skagit County, and the Washington Departments of Ecology and Agriculture continue to explore the watershed to identify potential pollution sources and get them fixed.

Questions about the Clean Samish Initiative can be directed to Karen DuBose at kdubose@co.skagit.wa.us or (360) 336-9400.



Mouth of the Samish River

Water Quality Monitoring Program

Skagit County Public Works operates the Skagit County Water Quality Monitoring Program (SCMP) as part of the County's Monitoring and Adaptive Management component of the current Critical Areas for Ongoing Agriculture (SCC 14.24.120)(Ag-CAO). The monitoring program consists of 40 sites throughout western Skagit County, located both within and outside of areas zoned Agricultural Natural Resources Lands (Ag-NRL) and Rural Resource.

The SCMP has been in place since October, 2003. Each sampling site is visited biweekly (26 times per year). Parameters measured include dissolved oxygen, temperature, pH, turbidity, conductivity, and salinity. Samples are also obtained for laboratory analysis of fecal coliform bacteria (each visit) and nutrients (quarterly).

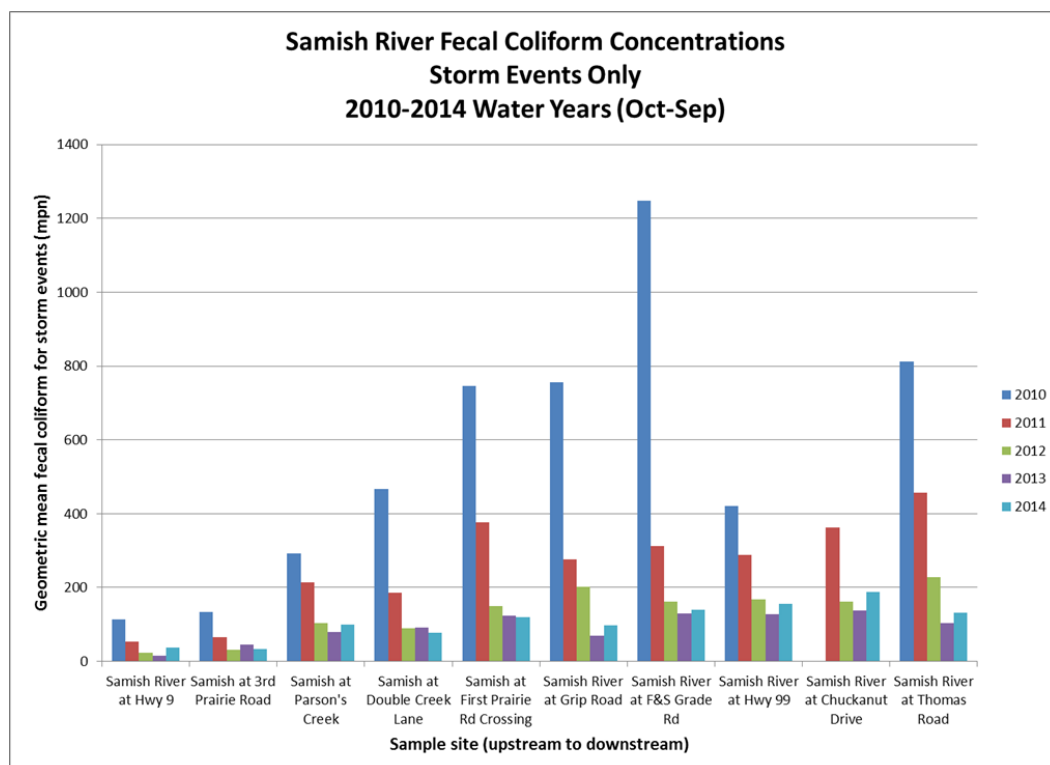
The original intent of the SCMP was to determine if positive or negative trends in water quality were occurring in areas affected by the Ag-CAO, and to determine if those trends were unique to agricultural areas or more widespread throughout the county. Several years ago, SCMP monitoring revealed fecal coliform problems in the Samish River. This finding led to the formation of the Clean Samish Initiative (CSI).

Skagit County has since expanded the PIC program to address fecal coliform pollution in the Padilla Bay watershed. Water quality monitoring remains an important component of the Skagit County Public Works – Natural Resource Division functions. Water quality is an important barometer of natural resource conditions as we seek to protect and restore our aquatic resources. County water quality staff work closely with other County departments, state and federal resource agencies, natural resource volunteer organizations, and the general public to inform them of the results generated by our programs and seek their assistance in addressing water quality issues in Skagit County.



Questions about Skagit County's Annual Water Quality Report and the monitoring program can be directed to Rick Haley at rickh@co.skagit.wa.us or (360) 336-9400.

“Each sample site is visited every two weeks to measure temperature, dissolved oxygen, fecal coliform and other parameters”





Skagit Conservation Education Alliance (SCEA)

Skagit Conservation Education Alliance is a community based non-profit organization whose mission is to bring people together in the spirit of cooperation to protect, conserve and enhance the natural ecosystems of Skagit Watersheds. By continuing to reach out to community partners, SCEA grows its alliances and expands networking and learning opportunities. SCEA continues successful partnerships with the Padilla Bay Foundation, Padilla Bay National Estuarine Research Reserve and Skagit County Clean Water Program, and many other partners and volunteers who supported clean water and watershed education in 2014.

The third annual **Art for Learning Watershed Science at Padilla Bay** attracted dozens of participants. Over 75 Elementary school-age children and families participated in our five-day workshop which included the following classes; Oysters Inside and Out, Everybody Needs a Home, Watersheds of Wilderness, Journal Making and An Estuary at Watersheds End.

SCEA's annual **Skagit Watershed Letterbox Trail**, which started July 1, had 18 letterboxes planted throughout the Skagit County Watersheds, from as far east as the Marblemount Fish



Final Event for the Annual Skagit Watershed Letterbox Trail

Hatchery to as far west as Washington Park in Anacortes. The always popular Letterbox Trail ran through October 6th.

In 2014, SCEA continued to collaborate with the Puget Sound Partnership serving as the **Skagit ECO Network** host. The network is an education, communication and outreach alliance representing 60 local and regional professionals and 38 organizations working to improve water and habitat health of the Skagit Watersheds, the Salish Sea and the Puget Sound. For the **Clean Samish Initiative**, we helped in the efforts to reduce fecal coliform pollution in the Samish Basin by providing portable toilets in recreational areas and serving the on the Clean Samish Committee.

Through a grant from Puget Sound Partnership SCEA produced **Signs for Clean Water** which included seven portable toilet signs, 15 signs on Skagit Transit buses and a billboard on Memorial Highway for 6 months. We continued to share and display our outreach materials and **Bi-valve Water Cleaning Demonstration** thanks to Taylor Shellfish Farms. We participated in numerous events including Festival of Family Farms, Anacortes Waterfront Festival, Kids in Nature, and Fidalgo Bay Day and Skagit River Salmon Festival.



SCEA's Educational Display at the Skagit River Salmon Festival

Skagit Fisheries Enhancement Group

The Skagit Fisheries Enhancement Group (SFEG) is a proud partner of Skagit County's Clean Water Program. As a nonprofit organization dedicated to restoring wild salmon populations for future generations, ensuring our local rivers and streams have clean, cool and consistent water is essential. Funding from Skagit County's Clean Water program expands our ability to offer free educational programs to area students and take them out of the classroom to apply what they have learned in a field setting.

Riparian Habitat Restoration:

Volunteers and staff worked with many partners to plant over 30,000 native trees and shrubs along Skagit County's rivers, streams, and shorelines. These projects restore critical riparian habitat for salmon, improve water quality in our watersheds.

Fish Passage Improvement:

Four Fish Passage Improvement projects were completed over the summer re-establishing access to over 5.5 miles of high quality habitat for salmon and steelhead in Skagit County. These projects were funded by grants from the **Family Forest Fish Passage Program** and brought over \$550,000 to the local economy to employ local people, purchase products from local vendors and contract with heavy equipment operators.

Education and Outreach:

Education is the key to ensuring that our next generation of community members are enthusiastic and passionate about protecting and conserving our watersheds. Education and outreach programs are designed to engage the general public and students in activities that inspire the future stewardship of salmon resources. Some examples from 2014 include:

- Training volunteers to **leading public tours of the Marblemount Fish Hatchery** during eagle season.
- Helping to coordinate the 2nd annual **Skagit River Salmon Festival** which drew nearly 5,000 to learn, engage and celebrate the amazing Skagit River and its resources.

Junior Stream Stewards, a unique year long learning opportunity for middle school students to have in-depth, hands-on experiential learning about watersheds and salmon habitat restoration.

Salmon in the Classroom, where students from local elementary schools learn about the amazing journey of salmon by raising salmon eggs from a local hatchery and releasing them into the school's neighborhood stream. And **Kids in Creeks**, which provides teachers with an opportunity to receive a custom-designed program that gets students of any age outside and making a difference in their communities through completion of a service-learning project.

Continuing to assist with the **Clean Samish Initiative** by educating Samish community members via outreach events, as well as securing additional grant funding and providing assistance to implement restoration efforts that restore riparian areas,



remove invasive knotweed plants, and monitor water quality improvements in partnership with Skagit County, the Samish Indian Nation and the Department of Ecology.

Monitoring:

Training volunteer citizens to be scientists for our watersheds allows changes in habitat conditions and fish use to be monitored for years after restoration projects are implemented. During 2014, volunteers donated over 1,500 hours collecting valuable data related to vegetation establishment and adult salmon usage at habitat restoration sites throughout the Skagit and Samish watersheds.

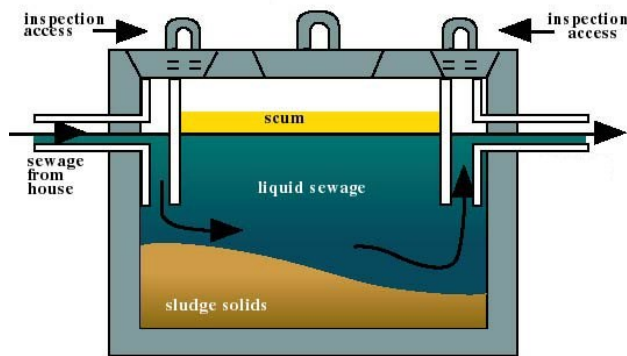
Encouraging community involvement is major priority for the on-going stewardship of Skagit County's watersheds. Providing diverse and fun ways to involve volunteers and students in learning and participating in habitat restoration activities is one way SFEG hopes to ensure healthy watersheds for future generations.



On-site Septic Systems– Skagit County Health Department

On-site Sewage (Septic) Systems Inspections

Skagit County Public Health and Community Services assures that on-site sewage (septic) systems are designed, installed and maintained so that the effluent discharged to the ground does not contaminate ground or surface water. The Clean Water Program money goes to the operations and maintenance (O/M) program. Like a car, septic systems need to have a regular check-up and maintenance to make sure they work as designed. Maintenance specialists certified by our Department check all the parts of a septic system like tanks, pumps and drain fields.



A Typical Septic System Design

Inspections and Repairs

Septic systems are required to have an inspection by a Skagit County Public Health certified operations and maintenance specialist. Conventional gravity systems need an inspection every three years and all other types of systems need annual inspections.

Most inspections happen in Marine Recovery Areas (MRAs) because we focus our efforts here. Septic systems on shorelines pose a greater threat of contamination. A septic system owner whose property is not on a shoreline and whose system is a conventional gravity system may be eligible to do their own inspection.

Quality Assurance

Public Health started a quality assurance program for our certified O/M specialists. We inspected a sampling of septic systems after receiving reports from an O/M specialist. In comparing the two inspections, we found 99% of inspections were factual and complete. For those we had concerns about, we met with the O/M specialist and got things straightened out. We are integrating quality assurance of the inspections to make sure you get what you pay for. If you have any concerns about an inspection, please let us know!

Septics Education

In-person Septic 101 classes are available as well as Septic 101 training on-line.

Rebates

Skagit County Public Health received additional funding from the Federal and State governments. By showing Skagit County's commitment to clean water through the Clean Water Program, we received funding to extend the \$100 rebates on inspections and \$100 rebates for installations of septic tank risers. Hurry, though! The rebates will be gone soon.

Financial Help

If you have a good credit record and a failing septic system, you may be eligible for a low-interest loan covering the entire cost of the repair. Loans can be spread out over many years to reduce the monthly cost. In addition, you may be eligible for \$1,000 or more taken off the principle of the loan. Contact Alison Mohns at 336-9410, Skagit County Planning & Development Services, for more information.

Any questions, just contact Skagit County Environmental Public Health at 360-336-9474 or EH@co.skagit.wa.us.



Septic Inspection in Progress

Rebate Program

What is it?

\$100 rebate for septic system inspections AND \$100 rebate for installation of risers and lids. Funded by an EPA grant through the Washington State Department of Health.

Is it for certain places?

These rebates are exclusively for three areas in the Samish Watershed. Thomas Creek, Friday Creek and part of the Samish main stem. Check www.skagitcounty.net/EH to see if your property is eligible.

Why would I need it?

Regular inspections help prevent septic system failures. Risers make the septic system easier to inspect later. That means protecting public health and improving water quality.

Fish Habitat Restoration Program

The Fish Habitat Restoration Program is an on-going County program dedicated to protecting and restoring fish and fish habitat.

Projects designed to improve fish habitat also have other water quality benefits. Riparian vegetation acts as a filter by removing pollutants before they reach streams while at the same time providing distance between pollutant sources and streams and stabilizing banks. Riparian habitat restoration therefore results in improved stream temperatures and reduced pollution levels.

Habitat Improvement Plan

The Fish Habitat Restoration Program is guided by the Habitat Improvement Plan (HIP). The mission of the HIP is 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. The HIP provides a road map for restoring salmonid habitat by identifying short, medium, and long-term project goals. To read the current HIP, visit: www.skagitcounty.net/HIP.

Salmon Habitat Monitoring

In 2004 Skagit County initiated the Salmon Habitat Monitoring Program to verify that County land use codes are adequately protecting critical areas near agricultural lands. The program is designed to detect whether salmon habitat is improving, deteriorating, or remaining the same as a result of the County's Critical Area Ordinance.

Voluntary Stewardship Program

In 2011, Skagit County joined 28 other Washington counties and enrolled in the state's Voluntary Stewardship Program (VSP). The VSP is a new approach for counties to participate in a watershed-based, collaborative stewardship planning process that uses incentives to promote agricultural and environmental stewardship in lieu of the more traditional process outlined in the state's Growth Management Act. Although the State legislature



Salmon Habitat Monitoring in Progress



has not yet appropriated funding, Skagit County passed resolution R20140287 on September 16, 2014 and initiated the VSP programs in Skagit County. Recently, the County Board of Commissioners appointed 12 members to the VSP Watershed Group who will draft the official Work Plan. Skagit County intends to integrate the existing salmon habitat monitoring program with the VSP. For additional information, please visit the VSP website at: www.skagitcounty.net/VSP

Fish Passage

In order to complete their spawning migration, salmon must be able to swim upstream to riffles where they can lay eggs before dying. Older culverts under roads however, act as barriers for fish attempting to make the upstream migration. Small culverts oftentimes present a velocity barrier for fish attempting to migrate through them and perched culverts prevent fish from jumping and entering the culvert. Conversely, large culverts and bridges allow water to flow through at a more natural rate providing a more stable stream environment for fish that also reduces flooding problems.

Skagit County has over 800 miles of roads with hundreds of culverts. In the past two decades, the County has replaced many small, inefficient culverts with larger culverts or other fish-friendly crossings. Listed below are some of the Fish Habitat projects accomplished in 2014:

- Hansen Creek - Reach 5
- Sauk Valley Road MP 12.5
- Ann Wolford Park Restoration
- Feasibility and Design Projects



Volunteer Planting
Native Vegetation

Questions about Skagit County's Habitat Improvement Plan and restoration projects can be directed to Jeff McGowan at jeffmc@co.skagit.wa.us or (360) 336-9400.

Skagit Conservation District

For more than 70 years, the Skagit Conservation District (SCD) has been caring for the people and places that make our region among the most beautiful in the world. The SCD works tirelessly to keep our local farms and forests sustainable, our rivers and streams healthy, our fish and wildlife abundant, and our children and grandchildren outdoors.

The SCD is a county-wide, non-regulatory division of state government that is governed by a board of five unpaid, elected supervisors, who are all local landowners. All programs provided by SCD are voluntary and free of charge.



Conservation District Awards Ceremony

Resource Conservation Planning and Technical Assistance for Commercial and Small Livestock Operations

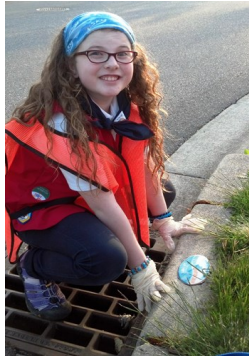
The SCD provides free technical and resource assistance to local farmers and landowners who seek out ways to maximize land stewardship options and minimize the impacts of livestock operations on soil and water resources.

Engaging the Community

Conservation education helps people of all ages understand and appreciate our county's natural resources – and to learn how to conserve those resources for future generations. Throughout the year, Skagit Conservation District offered structured educational experiences and activities targeted to varying age groups and populations to engage local residents and inspire local stewardship.

Storm Water Education Program:

A major contributor of toxic pollutants entering Puget Sound is the storm water that runs off our highways, roads, driveways, roofs, parking lots, disturbed soils, and other developed surfaces. The SCD works in partnership with Skagit County and the Cities of Mount Vernon, Burlington, Sedro-Woolley, and Anacortes to raise awareness of the impacts of storm water pollution and to promote environmentally friendly business and residential practices that minimize storm water impacts.



Storm Drain

Volunteer Programs: Citizen Involvement is crucial to water resource protection in Skagit County and SCD values the opportunity to engage and work with our community residents. Over the last year over 145 local residents participated in the District's Watershed Masters, Skagit Stream Team and Storm Team, Marine Biotxin Monitoring, Backyard Conservation and Community Wildlife Habitat programs, contributing over 4,500 reported volunteer hours.

Youth Education: Connecting our youth with the natural world, giving them a time and place to freely interact with nature, and introducing them to good environmental habits at a young age, are important key factors in our journey to a more sustainable community. The SCD continues to host the Annual 6th Grade Conservation Tour (750+ students), Annual Soil & Water Stewardship Week poster contest (75 entries this year) and support the Annual Regional, State, and National Envirothon competitions for high school students.

Clean Samish Initiative

As a local Clean Water Program partner, SCD serves on the Clean Samish Initiative Executive and Education Committees, providing technical assistance and cost-share funding for Samish residents, coordinating numerous education events and activities, and working one-on-one with community volunteers and neighbors to help improve water quality in the Samish basin. Key accomplishments in 2014 included:

- Coordinated with the Friday Creek Habitat Stewards
- Partnered with Chuckanut Transition in developing the Samish Watershed event
- Hosted the "Sustainable Samish Garden Tour"
- Developed the "Kids in Nature" event at Pomona Grange Park
- Hosted numerous workshops in the Samish Watershed focused on improving water quality.
 - ◆ How Clean is your Neighborhood Stream
 - ◆ Backyard Conservation
 - ◆ Saving the Samish
- Provided oversight and coordination of the volunteer water quality monitoring conducted by the Skagit Storm and Stream Team.

"Promoting Clean Streams, Stable Soils, Healthy Forests, Productive Farms and Sustainable Communities"

For information about Skagit Conservation District's programs, phone (360) 428-4313 or visit our website:

Natural Resource Stewardship Program (NRSP)

By applying to the Skagit County Natural Resource Stewardship Program (NRSP) landowners can receive up to \$35,000 in grant funding to enhance their property, at no cost to the landowner!

This program, started in 2009, has worked with over 30 individual landowners or community groups who own property next to a stream and wanted help protecting their property from bank erosion, invasive vegetation, or wanted to enhance their property for the improvement of water quality or fish habitat. Projects have included removing invasive plants and planting native vegetation, installation of livestock exclusion fencing and livestock crossings for safe passage, and the installation of logs to provide bank stabilization while benefitting fish habitat and water quality. Initial funding was received from the Department of Ecology and matched with County Clean Water funds. The program is currently on-going with an emphasis in the Samish watershed.

Restoring Riparian Areas:

Re-establishment of native vegetation by removing streamside invasive plants, such as Himalayan blackberry, Japanese knotweed, English Ivy, and then planting native plants, such as Red Alder, twinberry, vine maple, and Western Red Cedar can help stabilize banks, shade the stream, provide a food source for invertebrates in the stream that are eaten by juvenile salmonids, and beautify ones property. Effective riparian areas also filter out harmful pollutants such as soil runoff, fertilizers, and herbicides. By working closely with landowners NRSP is able to create a plan that meets the landowner's needs while still benefiting the health of the stream.

Livestock Exclusion:

Livestock can have many negative impacts on streams when their access to waterways is unrestricted.



Livestock Exclusion Fencing

These impacts can include:

- Reduced vegetation along stream banks
- Compacted soil and increased runoff
- Increased erosion resulting in poor salmon spawning gravel and property loss
- Manure-contaminated runoff resulting in high fecal coliform counts downstream

NRSP will provide materials and landowners can install exclusion fences and/or off-channel watering areas to prevent and/or reduce these negative impacts, or NRSP can provide labor and materials all at no charge to the landowner.

Bank Stabilizing and Restoring Fish Habitats:

Many streams in our area have failing and eroding banks. This can be caused by natural stream migration or upstream changes which increase erosion along the bank. Often landowners have limited bank vegetation which can increase rates of erosion on their property. Unrestricted bank erosion increases fine sediment in the system which is bad for water quality and salmon, not to mention losing property! The Natural Resource Stewardship Program can install wood in an effort to reduce bank erosion while enhancing the natural habitat and providing much needed habitat for juvenile salmonids. The NRSP program has installed over 100 pieces of wood.

Completed 2014 Projects:

Since 2009, NRSP has completed over 27 projects. County residents have restored over 55 acres of land including planting 24,985 native plants along nearly 7 miles! Additionally NRSP has installed 3 livestock crossings, 2.4 miles of fencing, and 135 pieces of large woody debris used for bank stability and improved salmon habitat. Projects have ranged from 0.1 acres to over 8 acres so no project is too small or too large for NRSP!

For more information, contact Emily Derenne at emilyjd@co.skagit.wa.us or (360)336-9400.



Large Woody Debris at a Restoration Site



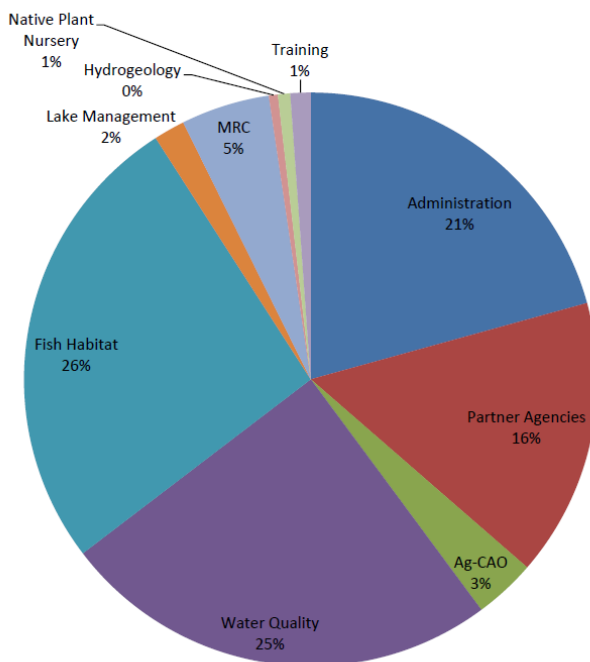
Skagit County Public Works
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 Phone: 360-336-9400
 E-mail: pw@co.skagit.wa.us

[www.skagitcounty.net/
 CleanWater](http://www.skagitcounty.net/CleanWater)

Clean Water is Everyone's Business

Clean Water Program Budget Summary

2014 Budgeted Expenses



The Skagit County Clean Water Program (CWP)

Skagit County's Clean Water Program originated from the Clean Water Shellfish Protection District created in 1995, which was originally designed to reduce bacterial pollution in Samish Bay and improve the quality of local shellfish beds. The County established the Clean Water Program in 2005 and authorized the collection of special assessments "to improve water quality and fish habitat essential for salmon recovery, shellfish protection, and other beneficial uses of the surface waters of Skagit County" (Resolution #R20060208). The County most recently reauthorized the CWP for an additional five years in 2014 (R20140165). On your annual property tax, this is listed as "Clean Water Assessment." In 2014, the CWP special assessment fee was \$28.01 per year for a single family residence.

What is the budget for 2014?

For 2014, the CWP revenue is expected to be approximately \$2.1 million. The CWP special assessment contributes about \$1.3 million to the revenue. The remaining amount of nearly \$800,000 is revenue from State and Federal grant funding.

What are CWP special assessments used for?

- Preventing pollution from reaching the Skagit River, Samish River, and Puget Sound through inspections and monitoring, as well as public education and outreach efforts.
- Implementation of the County's Pollution Identification and Correction Program in the Samish and Padilla Bay Watersheds.
- Participate in and coordinate salmon recovery efforts in Skagit County.
- In addition, fees fund CWP partner agencies. Each partner has an area of expertise and implements programs to reduce non-point pollution and improve fish habitat in Skagit County Surface Waters. Partners include the Skagit Conservation District, Skagit County Health Department, Skagit Watershed Council, Skagit Conservation Education Alliance, Skagit Fisheries Enhancement Group, and Western Washington Agricultural Association.