



# Clean Water Program 2016 Annual Report



*“Clean Water is Everyone’s  
Business”*



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## A Message from the Commissioners

As your commissioners, we are dedicated to ensuring our waters remain clean and safe. We all need clean water to ensure healthy lives and safe recreation, and viable habitat for fish, shellfish, and water quality.

The purpose of this report is to share with you our mission to enhance water quality for everyone in Skagit County. This report illustrates a variety of programs and activities aimed at improving water quality throughout the county.

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

Our Pollution Identification and Correction (PIC) Program is producing positive results in the Samish and Padilla watersheds. Our staff and volunteers are dedicated to working with landowners to help them be good stewards of this beautiful area. 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 Clean Water Program developed from the Clean Water (Shellfish Protection) District (CWD) created in 1995, which was originally designed to reduce bacterial pollution in Samish Bay by correcting failing septic systems in Edison and Blanchard.

From 1999 – 2005, Skagit County monitored water quality throughout the Samish Watershed. This monitoring revealed an ongoing fecal coliform pollution problem. Fecal coliform indicates the presence of bacterial organisms that can cause diseases such as typhoid fever, viral and bacterial gastroenteritis, hepatitis, and norovirus.

As a result of the continued high bacterial levels, Skagit County created the Clean Water Program (CWP) to strengthen non-point pollution reduction measures, educate the public, control non-point pollution, and develop a more thorough water quality 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). The NWSI is part of a grassroots effort to protect, enhance, and restore local marine resources. The Northwest Straits Commission provides technical support and regional coordination to all seven MRCs. Skagit MRC relies heavily on strong 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 (NWSF), a non-profit organization established to support the Initiative. Below are some of the 2016 highlights:

### Education and Outreach

- **Fidalgo Bay Day:** Fidalgo Bay Day is a fun, educational event for citizens of all ages who want to learn about the marine environment and what they can do to help protect it. Over 300 visitors attended SMRC's 13th annual Fidalgo Bay Day on August 27, 2016. 20 participating organizations hosted interactive educational displays and activities. Four local businesses provided free samples of shellfish and seafood chowders. 50 volunteers contributed a combined total of over 400 hours of volunteer services!



- **Salish Sea Stewards:** SMRC's signature Salish Sea Stewards program provides over 40 hours of classroom and 10 hours field-based training for volunteers. In return, volunteers are asked to contribute 50 hours of volunteer services. The classes are taught by qualified experts and cover marine science related topics and important issues impacting the Salish Sea. The program is administered under the umbrella of the Coastal Volunteer Partnership (CVP) at Padilla Bay. In 2016, 19 new volunteers completed the training and contributed over 1,025 hours of volunteer services! There are now a total of 55 trained Salish Sea Stewards in Skagit County.

### Marine Habitat Protection and Restoration

- **Bowman Bay Nearshore Restoration:** SMRC partnered with the NWSF and Washington State Parks, in a coordinated effort to remove approximately 540 feet (1,600 tons) of shoreline armoring and restore 0.6 acres of shoreline. Armor removal will directly benefit the nearshore ecosystem processes as well as improve sediment transport processes, forage fish spawning habitat, and nearshore habitat for shellfish and other invertebrates. Construction was completed in 2015. In 2016, 37 volunteers contributed over 300 hours collecting nearshore monitoring data. Several volunteer planting parties were lead by the Skagit Fisheries Enhancement Group. An Earth Day Celebration was held in April and the interpretive signage was unveiled at the Bowman Bay Restoration Celebration in November. Nearshore monitoring and planting will continue.



### Marine Species Protection and Restoration

- **Pinto Abalone Restoration:** Since 1969, worldwide abalone populations have declined by more than 50% with many species now recognized as threatened, endangered, or a species of concern. Since 2009, as part of an ongoing collaborative effort, over 10,900 juvenile abalone have been introduced to eight different outplant sites throughout the San Juan Archipelago. In 2016, SMRC partnered with the Puget Sound Restoration Fund (PSRF) to monitor the most recent pinto abalone restoration efforts and plant an additional 1,200 juvenile pinto abalone at six sites in Skagit County. Preliminary data indicates that abalone are growing larger in size and density. Pinto abalone seeding and monitoring will continue to take place through the early spring of 2017.
- **Olympia Oyster Restoration:** Since 2002, SMRC has been working in collaboration with the PSRF and other partners, to establish several sustainable native Olympia oyster beds in Fidalgo Bay. In 2016, to help expand this effort to the west side of Fidalgo Bay, volunteers deployed 44 cultch bags at Cap Sante Marina to provide habitat for oyster larval settlement. In addition, volunteers deployed 4 bags of Olympia oyster seed at experimental seed plots in Secret Harbor, and 20 oyster cultch bags in Fidalgo Bay. The cultch bags are monitored each year for natural settlement, survival, and distribution of Olympia oysters with the help of volunteers. Monitoring results indicate increasing success of natural oyster settlement.



Questions about Skagit County's Marine Resources Committee program can be directed to Tracy Alker at [Tracy@co.skagit.wa.us](mailto:Tracy@co.skagit.wa.us) or (360) 416-1462.



## 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 water-borne illness and other related water-quality hazards. Water 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. In 2015, the program expanded to include the Padilla Bay watershed.

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 where the pollution is coming from. Staff then follow up with site visits to property owners to identify the source of pollution, then work with property owners to correct any problems that are found. Common sources include pets, leaking septic systems, livestock such as horses, cows, and pigs, and wildlife.



The PIC Program has partnered with a number of other organizations to offer resources to property owners who may have problems on their property that need to be solved. Our partners include the Skagit Conservation District, the Skagit County Health Department, and Skagit Fisheries Enhancement Group, among others. With the help of our partners, we can offer low interest loans and grants for septic system repairs or replacements, free and confidential farm assessments by trained farm planners, assistance with farm management, and financial assistance for fencing, invasive plant removal, native plantings, and other projects.



### 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 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. Since 2015, the CSI partners have worked with the Governor's Office to reevaluate our work, experiment with new methods, and improve our processes.



Due to strong community participation and stewardship activities, we are continuing to make progress, and we are closer to our goal than ever. In 2016, the CSI team identified eight areas along several Samish River tributaries of interest, and more than 400 properties were closely evaluated for potential problems. In these areas and others in the watershed, water quality sampling led to the identification of four septic system failures. We evaluated 27 properties with livestock problems, and referred eight of those landowners to the Skagit Conservation District for free help to get their problems fixed. In 2017, Skagit County, and the Washington Departments of Ecology and Agriculture will continue to explore the watershed to identify potential pollution sources and get them fixed.

In addition to water quality monitoring and watershed assessments, Skagit County is working hard to encourage our citizens to adopt practices that reduce pollution through various education and outreach efforts. From attendance at a wide variety of public events to creating videos about septic systems to maintaining a presence on social media via our Facebook page, Skagit County is committed to experimenting with new methods to improve our work. 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](mailto:kdubose@co.skagit.wa.us) or (360) 416-1460.**

## Water Quality Monitoring Program

Skagit County Public Works operates the Skagit County Water Quality Monitoring Program (SCMP) as part of the Monitoring and Adaptive Management component of the current Critical Areas for Ongoing Agriculture (SCC 14.24.120)(Ag-CAO). The monitoring program began in October 2003 and 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.

Each sampling site is visited biweekly (26 times per year), and staffers measure such parameters as 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 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 widespread throughout the county. Data analysis indicates that for the length of the study, there are several statistically significant trends in water quality in Skagit County. As of the end of 2015 (latest data available), negative trends outnumbered improving trends. Positive and negative trends occurred in both agricultural and reference locations, but there was a higher percentage of improving trends in agricultural areas.

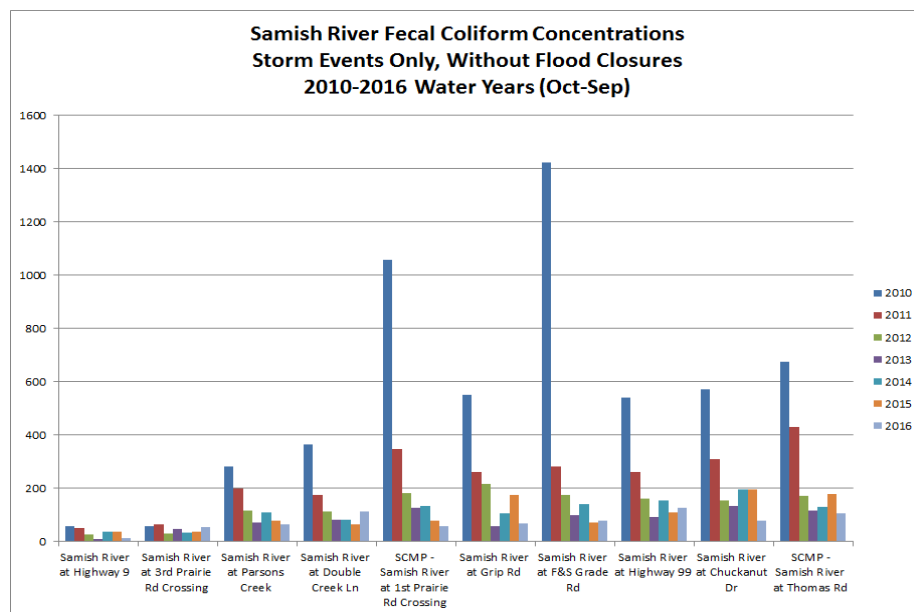


Another measurement we use is the Water Quality Index, intended as an overall look at the water quality of a given watercourse. Throughout the monitoring project since 2003, there has been an increase in the number of monitoring sites that meet the “lowest concern” or green category. In 2003 there were 3 green sites out of the 40 monitoring locations. In 2015 there were 16 green sites.

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). Part of the CSI effort is a Pollution Identification and Correction (PIC) program designed to locate and remediate sources of pollution through cooperative, common sense measures.

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.

**“At each sample site we measure temperature, dissolved oxygen, fecal coliform and other parameters”**



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](mailto:rickh@co.skagit.wa.us) or (360) 416-1457





## Skagit Conservation Education Alliance

SCEA is a community based non-profit organization dedicated to protecting and enhancing water quality in watersheds throughout Skagit County. SCEA accomplishes these goals by:

- Building cooperative and collaborative alliances with community residents and fellow conservation organizations.
- Hosting creative, fun education programs for the whole family that build a greater knowledge and relevance.
- Supporting and inspiring grassroots projects that focus on conservation and protection of water, soil and related natural resources.

### Skagit Watershed Letterbox Trail

SCEA's popular Skagit Watershed Letterbox Trail got a new look in 2016 with help from 5th graders at Bayview Elementary School. They created watershed-themed letterboxes, log books and stamps, and created clever clues to lead letterboxers to the hidden treasures.

In the summer of 2017 SCEA will kick off the Letterbox Trail again, this time with help from the 5<sup>th</sup> grade students from Allen Elementary School.

### Watershed Art and Discovery Day

Watershed Art and Discovery Day took place June 27, 2016, at Padilla Bay Research Reserve. More than 60 children and families tapped into their inner creativity to explore local watersheds. Through collage making, jellyfish constructing, sculpting, stamp making, and other projects, children were able to learn and discover the wonders of our local estuaries.



Letterbox Trail Participants



### Skagit ECO Net

SCEA continued to serve as the lead for Skagit Education, Communication, and Outreach Network (ECO Net) in 2016. Skagit ECO Net is a community of environmental, conservation and stewardship educators and professionals who encourage education, communication and outreach through connections and collaboration.

### Community Events

SCEA was proud to participate in many 2016 events hosted by our conservation partners. SCEA's popular Display Booth and Filter Feeder Tank Demonstrations were featured at community events throughout the county including: Storming the Sound, Fidalgo Bay Day, Taylor Shellfish-tival, Kids in Nature, Festival of Family Farms, and the Skagit River Salmon Festival.

More than 100 runners and walkers participated in SCEA's Doing A Sprint for Samish Health (DASSH) on Saturday, February 27. The race took participants through Edison and out to the banks of the Samish River to highlight the importance of clean water in the Samish Watershed.

The DASSH event marked the beginning of the spring critical period, March through June, when fecal coliform levels are highest in the Samish River. Activities after the event included an award ceremony, fun and educational booths from our partner's organizations, and geoduck chowder tasting courtesy of Taylor Shellfish.

[www.skagitcleanwater.org](http://www.skagitcleanwater.org)

(360) 428-0154

## Skagit Fisheries Enhancement Group

The Skagit Fisheries Enhancement Group (SFEG) is a nonprofit organization providing opportunities for our community to improve the health of the Skagit Valley for salmon, wildlife and people. SFEG does this by restoring and stewarding salmon habitat as well as providing educational programs to kids and community members. SFEG builds partnerships with local landowners, conservation groups, government agencies and tribes to ensure our community remains a healthy and beautiful place to live, work and have fun. SFEG's work benefits not only salmon, but also our entire community, that values clean water, abundant wildlife, enjoyable recreation opportunities and the unspoiled beauty of the Skagit Valley. As a nonprofit organization, SFEG relies on membership, donations, grants and partnerships to restore salmon populations for future generations. Funding from Skagit County's Clean Water program expands our ability to engage our community in keeping our water clean and healthy for all.

### Enhancing Habitat

Volunteers and staff worked with many partners to plant more than 18,700 native trees and shrubs along Skagit County's rivers, streams, and shorelines. These projects restore vegetation along waterways which is a critical component to decrease pollution in our waterbodies and improve water quality and habitat in our watersheds. SFEG staff also worked directly with 46 landowners to respond to questions about water quality and fish habitat, and to help develop restoration projects.

### Educating our Youth

In 2016, Skagit County Clean Water funds helped SFEG provide out of classroom education opportunities to more than 1,150 local students. Through three youth education programs (**Salmon in the Classroom, Kids in Creeks and Junior Stream Stewards**) local kids are having outdoor experiences that are connecting them to the natural world. Students are engaged in learning about salmon and also their role in being stewards of habitat in our community. They are learning that healthy salmon means healthy rivers, which also means healthy communities for our future.

### Engaging Our Community

SFEG continued to assist the **Clean Samish Initiative** by educating Samish community members via outreach events, as well as securing additional grant funding and providing assistance to restore habitat, remove invasive knotweed plants, and monitor water quality improvements in partnership with Skagit County, the Samish Indian Nation, and the Department of Ecology.

SFEG continued as a primary organizer of the 5<sup>th</sup> annual **Skagit River Salmon Festival** held at the Swinomish Tribal Community's Waterfront Park on a beautiful sunny Saturday in September. Over 6,000 people attended the Festival to learn, engage and celebrate the amazing Skagit watershed and its resources. New for this year SFEG hosted a "Salmon Sighting" event inviting members of the public to safely observe chum salmon spawning in Oyster Creek and learn more about keeping the water clean for salmon and shellfish.



Edison School Students at Ennis Creek in the Samish Watershed

### Monitoring Our Progress

Skagit County's Clean Water Program helps SFEG train volunteers to track progress at habitat restoration sites, trains them to be scientists in our watersheds and collect valuable data related to vegetation survival, growth, and adult and juvenile salmon use. This information is important to developing future projects and understanding the science of watershed restoration. This year, volunteers and student interns donated more than 2,200 hours collecting data to share with funders, researchers and public agencies. Adult salmon returns were more plentiful this year than last, making it an exciting year to be a citizen scientist.

SFEG is confident that the habitat restoration and education programs we provide make a difference for the future of our community. The work we have done, the work we are doing and the work we will continue to do with Skagit County's help makes our community a better, healthier, more beautiful place for all of us.

For an up to date list of volunteer opportunities and more information about how you or your group can help restore salmon habitat and keep our waterways clean and healthy, **please visit [www.skagitfisheries.org](http://www.skagitfisheries.org) or call 360-336-0172.**



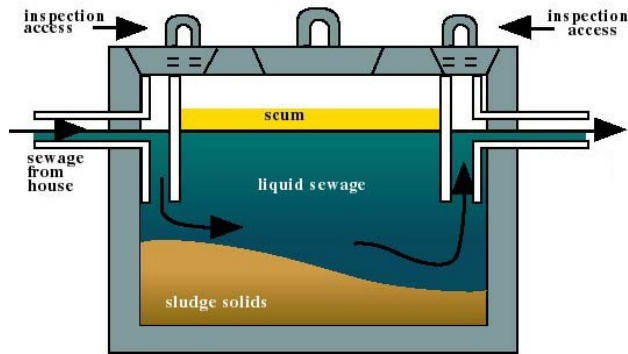
Chum Salmon, photo by Drew Fleshman



## On-site Septic Systems– Skagit County Health Department

### On-site Sewage (Septic) Systems Inspections

Skagit County Department of Public Health (SCDPH) 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 cars, 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, which can include tanks, pumps and drain fields.



A Typical Septic System Design

### Inspections and Repairs

Septic systems are required to have periodic inspections by a (SCDPH) certified operations and maintenance specialist. Conventional gravity systems need an inspection every three years; all other types of systems need annual inspections.

Our inspection efforts are focused in Marine Recovery Areas (MRAs) because environmental health impact is the greatest. Septic systems on shorelines pose a greater threat of contamination to surface waters.

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 after appropriate education and oversight by SCDPH.

### Quality Assurance

Public Health started a quality assurance program for our certified O/M specialists. Our goal is to conduct joint inspections with our certified O&M providers to assure that inspections are thorough and the submitted inspection information is complete. Annual certification may be denied if repeat deficiencies are observed. If you have any concerns about an inspection or an O&M provider, please contact the Health Department office.

### Septics Education

Septic 101 training is available online and is free. A Septics 201 in-person class is held on an as-needed basis. Septics 201 allows some homeowners to perform their own inspections.

### Rebates

SCDPH again received funding to provide \$100 rebates on inspections and \$100 rebates for installations of septic tank risers per household. Rebates are available for work done by a certified professional between January 1, 2016 and September 30, 2017 or until those funds are exhausted, whichever comes first. To be eligible for a rebate, the applicant must have taken the Septic 101 course and have had the work completed by a certified professional. See the SCDPH website for the application form and eligibility requirements: <https://www.skagitcounty.net/Departments/HealthEnvironmental/main.htm>

### Financial Help

Low-interest loans are available for covering the entire cost of a repair or replacement of a septic system. Loans can be spread out over many years to reduce the monthly cost.

**Any questions, just contact Skagit County Environmental Public Health at (360) 416-1555 or [EH@co.skagit.wa.us](mailto:EH@co.skagit.wa.us).**



## 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 for any eligible work done on a septic system in Skagit County.

### 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 ongoing County program dedicated to protecting water quality and fish habitat.

Projects designed to improve fish habitat also have 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.

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 and improving water quality by identifying short, medium, and long-term project goals.

In order to complete their spawning migration, salmon must be able to swim upstream to riffles where the female digs a redd and deposits her eggs. Smaller, older culverts, can act as barriers for fish attempting to make the upstream migration. Small culverts often 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. Reducing flooding and erosion problems also improves downstream water quality throughout Skagit County.

Skagit County has more than 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 are some of the Fish Habitat projects from 2016:



Blackberry Clearing for Future Planting



Completed Restoration Site with Large Woody Debris (LWD)

- Hansen Creek Reach 5 Channel-Final Design
- Martin Road Culvert Removal Study
- Martin Road Riparian Restoration
- Freestad Lake Estuary Restoration Design
- County culvert analysis and project development
- South Fork Delta Channel Design
- Trumpeter Creek Restoration



Chum Salmon, photo by Drew Fleshman

**Questions about Skagit County's Habitat Improvement Plan and restoration projects can be directed to Jeff McGowan at [jeffmc@co.skagit.wa.us](mailto:jeffmc@co.skagit.wa.us) or (360) 416-1448.**

## Skagit Conservation District

Since 1942, the Skagit Conservation District (SCD) has cared for the people and places that make our community 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 non-regulatory division of state government governed by a board of five supervisors, who are all local landowners. All programs provided by the SCD are voluntary and free of charge.

### Conservation Planning and Technical Assistance

The SCD provides free technical assistance to farmers and landowners who seek out ways to improve their farming operations and to minimize potential impacts of livestock operations on soil and water resources. Conservation planning provides landowners with useful guidance on pasture rotation, fencing design, gutters and downspouts, waste storage designs, alternative watering facilities, stream protection projects, manure management, and much more. Cost-share funds are also available for the installation of some Best Management Practices (BMPs).

In 2016, SCD provided assistance to 100 commercial and small farm landowners, completed 20 farm plans, implemented 14 structural BMPs, and updated 3 farm/dairy plans.

In addition, 9 new Conservation Reserve Enhancement Program projects were planted, totaling 56.66 acres with 678 buffer acres installed and 223,729 feet (42.4 miles) of riparian restoration.

### Engaging the Community

The Skagit Conservation District values learning and applied education that serves to educate and involve the public. The Conservation District offers several popular volunteer programs and many environmental education opportunities for youth and adults throughout the community.



SCD's Skagit Storm Team Volunteers



Solar Powered Pump, an Example of SCD's Technical Assistance

**Volunteer Programs:** Citizen involvement is crucial to water resource protection in Skagit County. SCD values the opportunity to engage and work with our community residents. During the last year, more than 160 local residents participated in the district's Watershed Masters, Skagit Stream Team and Storm Team, Marine Biotoxin Monitoring, Backyard Conservation and Community Wildlife Habitat programs, and contributed more than 4,975 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. In addition to providing educational presentations in the classrooms and reaching 900 students in 2016, the SCD again hosted the Annual 6<sup>th</sup> Grade Conservation Tour (734 students), Annual Soil & Water Stewardship Week poster contest and support for the Annual Regional, State, and National Envirothon competitions for high school students.

### Clean Water Program

We are all neighbors and together we can have healthy watersheds! Success in keeping our valuable water resources clean relies on the participation and involvement of everyone who lives, works, or plays in the watershed. As a local Clean Water Partner, SCD served on the Clean Samish Initiative Executive and Education Committees, provided farm planning and technical assistance to local landowners, provided educational opportunities, and worked one-on-one with community volunteers and neighbors to help improve the health of our waters. Grant funding was also received to plan a green infrastructure demonstration project in the Bay View community. Construction of the demonstration project is scheduled to begin during spring of 2017.

**For information about the Skagit Conservation District, call (360) 428-4313 or visit [www.skagitcd.org](http://www.skagitcd.org).**



## Natural Resource Stewardship Program (NRSP)

Skagit County has offered the Skagit County Natural Resource Stewardship Program (NRSP) since 2009. By enrolling in the program, landowners can receive up to \$35,000 of grant funded enhancement to their property, at no cost to the landowner. Projects must be next to a stream, waterbody, or ditch, and can include work with the intent of protecting the property from bank erosion, removal of invasive vegetation, replanting with native vegetation, or the desire to enhance their property for the improvement of water quality or fish habitat. We are currently focusing on the Samish, Padilla, and Nookachamps watersheds but have funding for Countywide projects.

### Restoring Riparian Areas

Re-establishment of native vegetation by removing streamside invasive plants and then planting native plants, such as Red Alder, twinberry, vine maple, and Western Red Cedar, can help stabilize banks, shade the stream, reduce pollution, provide a food source for invertebrates in the stream that are eaten by juvenile salmonids, and beautify local properties.

### Livestock Exclusion

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

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 install a variety of fencing types. We work closely with the landowner to ensure their needs are met and their animals are contained in a safe and effective manner. NRSP is also able to install livestock crossings to reduce bank erosion and limit direct access to the water.

### Bank Stabilizing and Restoring Fish Habitats

Many streams in our area have failing and eroding banks. This can be caused by natural stream migration, often exacerbated by removal of riparian vegetation. Additionally, upstream changes can impact residents downstream sometimes leading to erosion where there hadn't been in recent history. Often landowners have limited bank vegetation which can increase rates



Bankside erosion resulting in the loss of property

of erosion on their property by removing all root strength below ground. Remember, erosion through grass is very easy! 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 almost 230 pieces of Large Woody Debris (LWD).



### Completed 2016 Projects

Skagit County has worked with more than 52 individual landowners or community groups on 42 projects. They have included removal of 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. County residents have restored more than 86 acres of land including planting 37,916 native plants along more than 10 miles of property. Additionally NRSP has installed 4 livestock crossings, 4.7 miles of fencing, and 229 pieces of large woody debris used for bank stability and improved salmon habitat. Projects have ranged from 0.1 acres to more than 8 acres. No project is too small or too large for NRSP.



Restored stream bank with added wood to prevent future erosion

For more information, contact Emily Derenne at [emilyjd@co.skagit.wa.us](mailto:emilyjd@co.skagit.wa.us) or (360)416-1449.

## Coastal Volunteer Partnership (CVP)

The Coastal Volunteer Partnership at Padilla Bay is a collaborative volunteer program increasing local citizen capacity to protect and restore natural resources along our shorelines. Headquartered at the Padilla Bay National Estuarine Research Reserve, we work throughout Skagit County and the Salish Sea to provide capable, trained volunteers for environmental projects and community education and outreach efforts.

The Coastal Volunteer Partnership at Padilla Bay recruits and trains approximately 45 volunteers on an annual basis. In 2016 our 111 active volunteers provided 6,066.24 volunteer hours on over 60 projects offered through the Partnership.

**BEACH Water Quality Sampling:** 15 volunteers conducted weekly water quality sampling at Bay View State Park from Memorial Day to Labor Day 2016 to test for enterococcus bacterial levels. The State Park was only closed one time due to excessive bacteria levels and volunteers provided hours of on-site outreach and education for retreaters, campers, dog owners, and beach users. This was a huge success as Bay View State Park had been significantly impacted by closures the previous 5 years.

**Zero Waste Initiatives:** 19 volunteers set up and monitored zero-waste stations at several community events in 2016 including; SCEA D.A.S.S.H., Skagit County Tulip Run, Opening Day of Boating Season (POA), Anacortes Waterfront Festival, Dine & Discover Bay View, Fidalgo Bay Day/National Estuary Day, Fidalgo Shoreline Academy, Taylor Shellfishival, and the Skagit River Salmon Festival. Volunteers interacted with thousands of community members to educate them about better waste management practices. The proper disposal of waste from festivals and events has been vastly improved by the presence of Zero Waste stations and educated volunteers.

**Bay View Dine & Discover:** Held on June 17<sup>th</sup>, 2016 from 4:00-8:00pm this annual community BBQ attracted over 160 individuals from the Samish and Padilla watersheds. This annual celebration of clean water and its impact on our businesses and communities attracted 15 project partners who hosted water quality themed games and educational displays for families to



CVP volunteer serving oysters at Dine & Discover



CVP Volunteer conducting weekly water quality monitoring at Bay View State Park

learn more about what impacts our local waterways from septic system demonstrations, to shellfish jeopardy. This BBQ had it all! Attendees earned raffle tickets which they turned in to win prizes donated through the Padilla Bay Foundation from local businesses. Attendees to this free event celebrated with great music from the Prozac Mountain Boys and ate delicious food from businesses located within the watersheds to further highlight the connectivity within Skagit County.



Education and Outreach at Bay View State Park

**Watershed Education Events:** The Coastal Volunteer Partnership hosted various lectures, presentations and workshops for volunteers and community members to learn more about our unique county. Presentations included; Ocean Acidification forum, A History of Padilla Bay, Monofilament Recycling Program Protecting our Waterways, Water Quality and You, Diking the Delta, and a Skagit County Research Symposium.

For more information on volunteer opportunities and how you can get involved protecting and restoring our shorelines please visit [www.coastalvolunteerpartnership.org](http://www.coastalvolunteerpartnership.org) or contact Samantha Russell [srussell@padillabay.gov](mailto:srussell@padillabay.gov) (360)428-1559





Skagit County Public Works  
1800 Continental Place  
Mount Vernon, WA 98273

Phone: 360-416-1400  
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

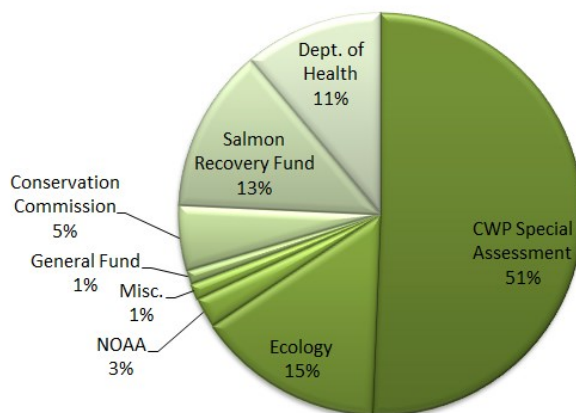
### The Skagit County Clean Water Program (CWP)

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 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 (CWA). In 2016, the CWP special assessment fee was \$45 per year for a single-family residence and \$150 per year for commercial property.

### What was the budget for in 2016?

For 2016, the CWP revenue was expected to be approximately \$2.8 million. The CWP special assessment contributes about \$1.4 million of the revenue. The additional amount of nearly \$1.4 million is mostly funding from State and Federal grants.

### 2016 Budgeted Revenue



### 2016 Budgeted Expenses

