

# CLEAN WATER

## *Skagit County*

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## Message from the Commissioners

Clean water is of great importance to Skagit County. We all need clean water to ensure healthy lives and safe recreation, cleaner stormwater, viable habitat for fish and wildlife, and healthy shellfish beds. As your County Commissioners, we are dedicated to ensuring that our waters remain clean and safe.

The purpose of this annual report is to share with you our mission for enhancing water quality for everyone in Skagit County. Inside, you will find the many measures we're taking to implement water quality corrective procedures, educate the public, and develop programs to engage the community. In recognition of the fact that we need to work collectively to resolve water quality problems, the report describes the many organizations Skagit County partners with in our effort to address pollution and enhance water quality.

High fecal coliform levels in the Samish Bay threaten our health, shellfish beds, food production, and quality of life in Skagit County. Through our Clean Water Program, however, we are committed to implementing a locally led effort to resolve the water quality issues facing the Samish. In 2011, the Skagit County Clean Water Fund will contribute \$152,504, coupled with \$320,659 from an EPA grant, towards cleaning up the Samish River Watershed.

As a community, we need to ensure that all of Skagit County continues to have accessible and reliable clean water. Skagit County has a long and successful history of environmental stewardship. We encourage you 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, Chairman  
District #1



Ken Dahlstedt  
District #2



Sharon Dillon  
District #3

# History of the Clean Water Program

*In 2005, Skagit County created the Clean Water Program (CWP) to enhance Skagit County's water quality and address and correct non-point pollution.*

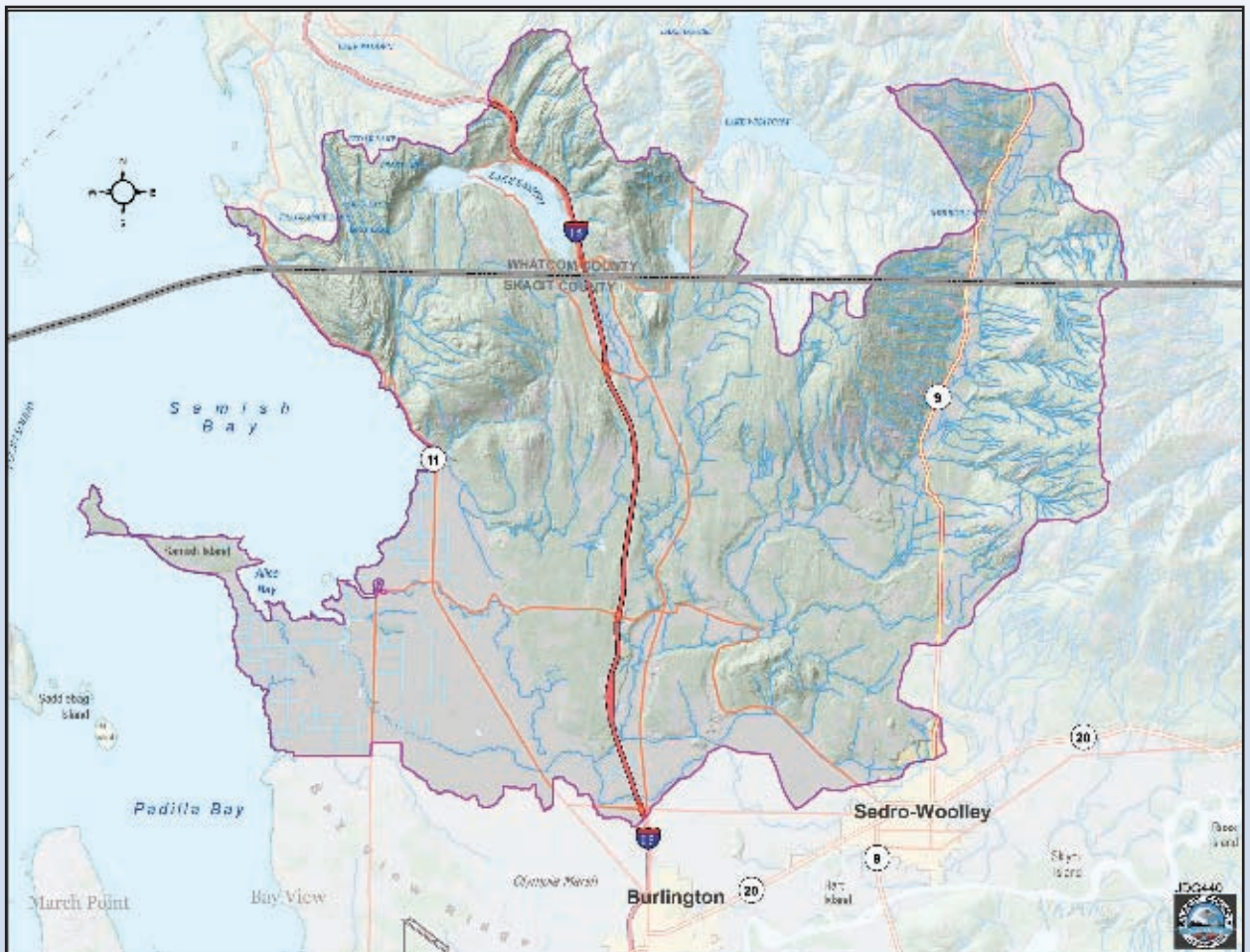
The CWP was an add-on to the already-established Clean Water (Shellfish Protection) District (CWD) created in 1995, which was originally designed to reduce bacterial pollution in Samish Bay and improve the quality of local shellfish beds by cleaning up failing septic systems in Edison and Blanchard.

From 1999 – 2005, as part of the CWD, Skagit County monitored water quality through the Baseline and Samish Bay Watershed Quality 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.

**Fecal coliform indicates the presence of organisms that can cause diseases such as typhoid fever, viral and bacterial gastroenteritis, and hepatitis A.**

***This diagram depicts all areas in Skagit and Whatcom Counties that are included in the Samish River Watershed. Everything within this boundary can potentially contribute to pollution in the Samish Bay.***



# Implementing Water Cleanup in the Samish Watershed

## *Washington Department of Ecology*

After an illness outbreak in 2004 among people who had eaten oysters harvested commercially from Samish Bay, Ecology began working with the state Department of Health and many Skagit-area agencies to improve water quality in the river and tributaries to the bay. Ecology produced a cleanup plan, held a public meeting, and the plan was published and approved by EPA in 2009. But during that year, despite many meetings and many documents, the Samish River continued to run high with fecal coliform bacteria after every big rain event. Change on the ground, that could help the water, was not happening.

What makes change happen? Sometimes we need to do things differently. Except for industries and huge wastewater treatment plants that operate with discharge permits, getting our shared waters clean enough to meet state standards takes a lot of education and many actions on the part of a lot of people. So, in fall 2009, Ecology spearheaded the Clean Samish Initiative, a collaboration of more than 20 federal, state and local government agencies, Tribes, and local organizations to address continuing high fecal coliform counts and periodic closures of Samish Bay to shellfish harvest. Under the Initiative, these organizations worked together to identify priority reaches of the Samish watershed for continued monitoring, public outreach and focusing of agency work.

In 2010, leadership of the Clean Samish Initiative transferred locally and is now led by Skagit County. Skagit County, the Samish Indian Nation, the Skagit Conservation District, the Skagit Conservation Education Alliance and other local organizations were also awarded a \$960,000 EPA grant to improve water quality through a Pollution Identification and Correction project.

Ecology is continuing to participate in the Clean Samish Initiative in several ways: through an Executive Committee that reviews any issues not being resolved by individual

agency processes, through review of new water quality data, by participating in public outreach planning, and by funding some of Skagit Health Department's efforts to get all onsite sewage systems in the Samish inspected.

Starting in the fall of 2009, Ecology's nonpoint inspector has worked with Skagit County Health Department's sanitarian to conduct more than 65 joint livestock/onsite sewage system inspections on private property. Ecology has a responsibility to respond to pollution, and the inspector is assigned to work with rural property owners to prevent manure-contaminated runoff from reaching the river, tributary streams or ditches. (This does not include dairy farms, which manage manure according to nutrient management plans with oversight by Washington Department of Agriculture.) The areas selected for site visits are based on sampling data collected by the County which identifies streams and river reaches with the highest fecal coliform counts.

Ecology's approach is to provide education and technical assistance in order to obtain voluntary compliance. The nonpoint inspector contacts a property owner for one of two reasons: response to a complaint, or because of observations from a public roadway that indicate conditions that allow animals and/or contaminated runoff to reach surface waters. These visits have been new for most property owners. The goal is to provide information in order to quickly implement solutions. Agricultural activities are not exempt from state water quality laws, and educating and informing property owners is essential. Ecology follows a set, consistent approach and gives property owners ample opportunity to get additional technical assistance from the Skagit Conservation District, if needed. Although it will take time for everyone in the watershed to understand the care it takes to protect water quality, many residents have already adopted changes on their land that will make a difference in the water.



# Skagit County's Shellfish Resources Rely on Clean Water

Bill Dewey, Taylor Shellfish Farms



Skagit County has abundant shellfish resources along its marine shorelines that rely on clean water. One of the primary goals of Skagit County's Clean Water Program (CWP) is to ensure the waters are free of pollution so that commercially farmed or recreationally harvested clams, oysters, and mussels from our shorelines, are safe to eat.

Pathogens that make humans sick can get into our bays if septic systems are not properly maintained or pet or livestock wastes are not properly managed and/or disposed of. It is important to keep these pollutants from entering our surface waters. When enough of these contaminants enter shellfish growing areas, the Washington Department of Health (DOH) downgrades the areas and imposes harvest restrictions or prohibitions. Once downgraded, it often takes years to identify and address the pollution sources to get the area upgraded.

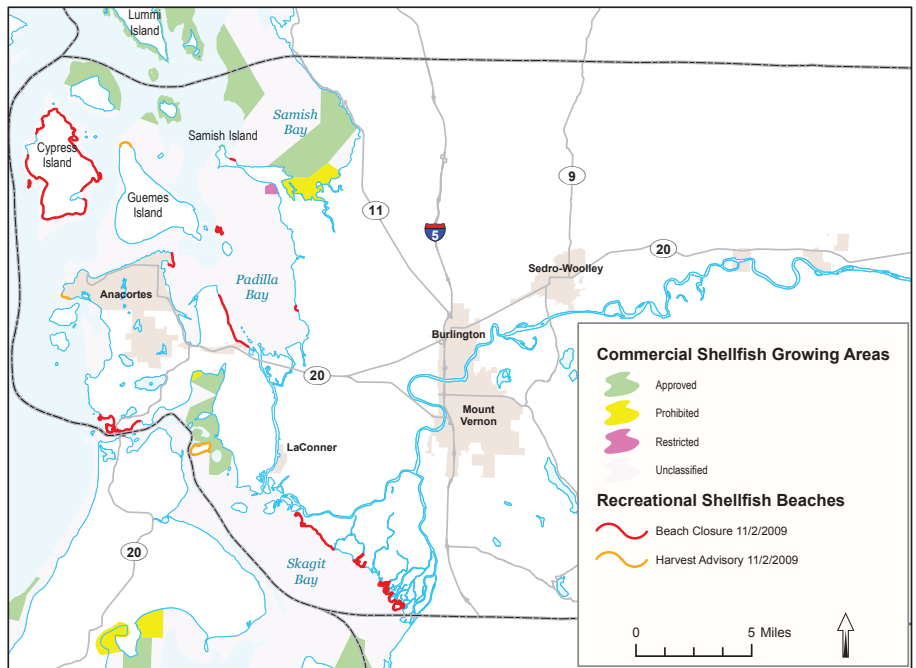
Similk Bay's recent upgrade by DOH is a CWP success story. Downgraded in 2000, it has taken ten years of effort by the County and residents around the bay to identify and address the pollution sources. Congratulations to all who worked so hard to achieve the recent upgrade!

Similarly, there has been a tremendous effort to identify and correct pollution sources impacting Samish Bay, the county's primary commercial shellfish producing area. Progress is being made with sampling data indicating a trend toward cleaner water. Unfortunately, progress has not been quick enough and due to excessive poor water quality following rain events, Samish Bay is in the process of being downgraded by the DOH.

Since April 2008, the DOH has been imposing pollution closures on Samish Bay following significant rainfall events. The closures are typically five days in duration. Sampling shows that five days is sufficient in order for pollutants to wash out of the watershed, be taken up, and subsequently purged from the shellfish. In 2010, Samish Bay was closed due to pollution for a total of 68 days! In addition, it was closed another 18 days due to naturally occurring red tide (Paralytic Shellfish Poisoning) and another 45 days with restrictions on live

oyster sales due to a naturally occurring bacteria, *Vibrio parahaemolyticus*, which can make people sick if the shellfish are consumed raw.

The closures and harvest restrictions are having a huge impact on Samish Bay's commercial shellfish farms and their employees. Unlike seasonal terrestrial farms, shellfish growers typically market their products year-round to restaurants and retail outlets that rely on multiple fresh deliveries per week. The frequent closures



are forcing their markets to source product elsewhere resulting in employee layoffs on the farms. Imagine the challenge of operating a business that randomly gets closed down with no warning for nearly 25% of the year.

The shellfish growers in Samish Bay send an urgent plea to all residents in the Samish watershed to please join their neighbors and do their part to address water quality issues on their property. Shellfish farming has been part of Samish Bay and the county's heritage for over a hundred years and its future is in serious and immediate jeopardy. We do not have the ten years it took in Similk Bay to turn Samish around. Similk had one part-time oyster farm; Samish has many large fulltime shellfish operations and dozens of employees whose livelihoods are at stake.

# Water Quality Monitoring Program

## Monitoring Skagit County's Waters

In October 2010, County personnel completed the seventh year of the Skagit County Monitoring Program (SCMP). The SCMP is designed to monitor trends in water quality throughout the county, with a special emphasis on agricultural areas. The information generated is used to assess the effectiveness of County critical areas protections and determine which parts of the county need help in improving water quality.

## Monitoring across Skagit County

Established in 2003, the SCMP tests water from 40 different sites throughout the county. The testing is used to establish a water quality baseline and identify trends in watershed health in agricultural areas of the Samish and Skagit River Basins. Streams located outside agricultural areas are also tested for comparison.

By consistently collecting data, it is possible to determine which parts of the Samish and Skagit Basins need the most attention; Skagit County can then take action towards cleaning these areas.

The data collected indicates that many Skagit County streams, both within and outside agricultural areas, do not meet state water quality standards for fecal coliform, temperature, and/or dissolved oxygen. Most substandard areas have been identified in tributaries to the Skagit River and Samish Basin; sampling locations on the Skagit River meet most standards on most occasions. In other areas, and especially in the Samish Basin, Skagit County has started closer monitoring in an attempt to identify specific causes of poor water quality in specific areas and determine which areas fail to meet standards due to natural causes rather than human-caused problems. The Trends Analysis indicates that many significant trends in water quality, both good and bad, are detectable in Skagit County watercourses. These trends will be examined on an individual basis for further evidence of where cleanup activities are needed and where they have successfully led to improved water quality. There was no pattern to the trends based on agricultural zoning.

## Continuing the Effort

Skagit County's monitoring project was originally funded to continue through 2009. The program recently received funding, however, to continue until 2014 and will be reassessed on an annual basis. The program was supported by a Centennial Clean Water Grant by the Department of Ecology and in part by the Clean Water Program through 2008; as of January 2009, it is fully supported by the CWP.



*Skagit County taking a sample at Fisher Creek*

***"These state standards are set to protect salmonid populations, recreation, and downstream shellfish resources. Streams not meeting the standards need cleanup plans to fully support these uses."***



## History of the Skagit County Water Quality Monitoring Program

The SCMP was established as a supplement to the Critical Areas Ordinance which was designed to prevent the deterioration of Skagit's watersheds. The SCMP was originally designed to measure the effectiveness of the agricultural Critical Areas Ordinance.

## What do we test for?

Dissolved oxygen, temperature, fecal coliform, pH, turbidity, and nutrients.

## What is fecal coliform?

Fecal coliform is a measure of bacteria from digestive tracts of warm blooded animals present in the water. It serves as an indicator of possible disease-causing organisms stemming from fecal contamination. Fecal coliform counts are used to determine if a stream is safe for recreation and if downstream shellfish are safe for consumption.

# The Clean Samish Initiative & Pollution Identification and Correction Program

Samish Basin fecal coliform pollution issues have attracted regional attention and are now the focus of the Clean Samish Initiative (CSI). The CSI is a multi-agency effort involving the State Departments of Ecology and Health, Skagit County, the Skagit Conservation District, the Skagit Conservation Education Alliance, the Samish Tribe, the Western Washington Agricultural Association, the Washington State Dairy Federation, EPA, Taylor Shellfish, and other organizations. The CSI's goal is to achieve both short and long-term pollution reductions in the Samish Basin.

The Clean Samish workgroup has established subcommittees to address monitoring, education and outreach, funding, and other aspects of the effort. Detailed monitoring of the Samish Basin by Skagit County Public Works, the Samish Tribe, and Storm Team volunteers from the Conservation District began in 2008. It continues today with site visits by Ecology and Skagit County Public Health personnel to assess both septic systems and livestock access to streams.

## The Pollution Identification and Correction Program

In 2010, Skagit County received a \$960,000 grant from EPA to address fecal coliform pollution in the Samish Basin. This funding will enable local CSI partner groups to conduct a Pollution Identification and Correction (PIC) program in the Samish Basin.

The PIC approach, adapted from a Kitsap County program, is a concentrated water quality sampling measure that locates likely sources of pollution. In affected parts of the basin, sampling is followed up with landowner contact



*Skagit County's PIC Program helps locate likely sources of pollution in the Samish Basin. In affected parts of the basin, water quality sampling is followed up with landowner contact to determine if septic tank or manure management problems are leading to the pollution. Unfenced livestock with access to local streams can contribute to the fecal coliform bacteria pollution problem.*

to determine if septic tank or manure management problems are leading to the pollution.

Public Works staff are conducting the water quality sampling and working with Public Health and Planning and Development Services staff to identify the specific locations of the pollution sources. Public Health and Planning staff have also started conducting voluntary site visits with willing landowners. If Skagit County finds potential sources or conditions of fecal coliform bacteria pollution, the inspectors will refer landowners to appropriate resource agencies with programs designed to eliminate the pollution, including Public Health, the Skagit Conservation District, the Skagit County Natural Resources Stewardship Program, and other agencies with the tools to address the problem. Enforcement of County or State regulations will occur only in the case that landowners with demonstrated pollution problems do not cooperate voluntarily.

For more information on the program, contact Rick Haley at [rickh@co.skagit.wa.us](mailto:rickh@co.skagit.wa.us).



## Similk Bay shellfish beds reclassified to *Approved*

In November 2010, the Washington State Department of Health reclassified a portion of the Similk Bay commercial shellfish growing area from Prohibited to Approved. This change in classification was prompted by the results of a comprehensive review of pollution conditions and marine water quality data by the State Department of Health.

This reclassification upgraded the 80-acre Prohibited area on the western side of Similk Bay to Approved. The

Prohibited area was established in 2000 due to failing onsite septic systems in the Similk Beach community.

In 2001, the Skagit County Health Department surveyed 86 homes in the Similk Beach area and found that over 50 percent of onsite septic systems were failing. "Health, PUD, environmental groups, and Similk Beach residents spent over five years intensively working to bring in a

*(Continued on next page)*



# Clean Samish Initiative Executive Committee directs action in clean-up effort

## *It takes teamwork, dedication, and communication to take on a task as formidable as the Clean Samish Initiative*

As our partner agencies at the local, state, and federal level initiate the plan on the ground to clean up the Samish, our Executive Committee meets every month to make sure we are meeting our milestones and making the adjustments necessary for success.

The Executive Committee is comprised of the following members:

- **Bill Dewey, Taylor Shellfish Farms**
- **Jeannie Summerhays, Washington State Department of Ecology**
- **Christine Woodward, Samish Indian Nation**
- **Carolyn Kelly, Skagit Conservation District**
- **Corinne Story, Skagit County Health Department**
- **Ron Wesen, Skagit County Commissioner**
- **Gary Christensen, Skagit County Planning and Development Services**
- **Dan Berentson, Skagit County Public Works**
- **Thomas Eaton, Environmental Protection Agency**

Community support is strong in our efforts to tackle the serious pollution problem in the Samish River watershed. Clean water is everyone's business. The high fecal coliform levels in Samish Bay are a threat to our health, our shellfish industry, and our quality of life.

The Skagit County Board of Commissioners has made a strong commitment to this effort in a partnership with the Environmental Protection Agency (EPA) and the Washington State Department of Ecology to fund a \$473,000 multi-agency effort in the Samish in 2011. Skagit County's Clean Water fund is contributing \$152,504 for 2011 with

\$320,659 from the EPA grant. Over the next three years, Skagit County will continue to use Clean Water Program match dollars with EPA to clean up the Samish River Watershed. EPA's total commitment to the Clean Samish Initiative, is more than \$961,980.

Skagit County has recently taken the lead in the effort and distributes Clean Water Fund and EPA dollars to the Skagit Conservation District, Skagit Conservation Education Alliance, Skagit Fisheries Enhancement Group, Western Washington Agriculture Association, Samish Indian Nation and Washington State University Extension to perform a myriad of tasks including public education and outreach, and working with farmers and landowners to reduce pollution through the implementation of farm plans.



*A view of Alice Bay. Protecting and cleaning up the Samish watershed is of the utmost importance to the Clean Samish Initiative, but takes community involvement and support to achieve.*

## **Similk Bay shellfish beds reclassified to *Approved*** *(Continued from previous page)*

community sewer to resolve the problem," said Corinne Story, Skagit County Environmental Public Health Manager. "In the end, however, the financial equation simply did not work so we had to go to Plan B. In the fall of 2005, we began working with Similk residents to ensure all septic systems were inspected and then repaired or replaced as necessary. It took five years, but we are finally seeing the end results of this effort."

Similk Beach residents will be required to have inspections completed on their systems every year to ensure they are working properly. "Similk Beach residents are to be congratulated on their achievement," stated Story.

"However, maintaining good water quality requires diligence. Annual inspections are not only required by code, but they are also essential to assuring Similk Beach remains approved for commercial shellfish harvest."

"Similk Beach is a great success story and shows us that each property can, indeed, make a difference. We are now working intensely in the Samish watershed and hope that we can write a similar story soon about Samish Bay," Story added.

For more information, contact Corinne Story at 360-336-9380 or [corinnes@co.skagit.wa.us](mailto:corinnes@co.skagit.wa.us).





# Samish Indian Nation

## *Preserving the Salish Sea and Skagit County's natural resources*

Water quality studies have been a focus of the Samish Indian Nation Department of Natural Resources for more than 15 years. The Salish Sea provides a high quality of life and an abundance of resources for all of its residents. Preserving this quality of life is of the utmost importance to the Tribe and the Samish Natural Resources Department. Currently, the program is very active in the Samish watershed. We are working in the Thomas Creek sub basin near Sedro Woolley through our participation with the Clean Samish Initiative to provide assistance with water quality sampling at several sites focusing on storm events. The speculation that water quality problems in the Samish may be storm-driven has fueled this program. Sampling parameters include fecal coliform bacteria, total phosphorus, nitrate, nitrite, and turbidity. Part of our sampling on Thomas Creek monitors the success of our wetland restoration project on the Tribe's property

near Kelleher and F&S Grade Road. This project included constructing one main channel, two blind channels, and adding approximately 10 acres of riparian buffer. It is our hope that this project will create positive results on this highly impacted stream.

Our water quality activities, however, are not limited to the Samish watershed. Several other studies are taking place in Skagit County. In Fidalgo Bay, we are currently working with the City of Anacortes to monitor 38 stormwater outfalls and help with outreach activities. Our work also includes four years of monitoring Lake Campbell and its outlet and inlets. These projects have allowed us to work cooperatively and in conjunction with many community entities to help emphasize the importance of natural resources in Skagit County and the Salish Sea.



*To the right, is a look at the restoration work completed by the Samish Indian Nation on Thomas Creek. The Samish Indian Nation put about 2,000 plants along with about 25 pieces of large woody debris in the off-channel area. This area is suited for short-term flood storage and provides some off-channel habitat for all types of wetland creatures and waterfowl.*





# Skagit Fisheries Enhancement Group

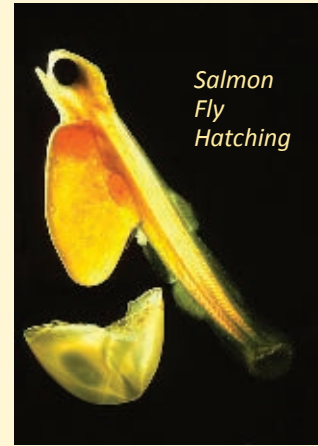


*By Alison Studley*

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 for future generations, ensuring our local rivers and streams have clean, plentiful water is essential. Funds provided by Skagit County's clean water program enable us to reach out to new landowners and work with them to develop new watershed restoration projects. It allows us to write grants and leverage small amounts of Clean Water funds into large dollars that can implement big scale restoration projects. Funds also allow us to train volunteers to monitor habitat restoration sites once projects are implemented to ensure restoration goals are met. Each year we train volunteers to count returning salmon, track vegetation growth and measure physical stream conditions at over 30 sites.

Enabling SFEG to offer high quality education programs to students of all ages throughout our watershed is one of the most important facets of Skagit County's Clean Water funds. SFEG's education programs are designed to engage students beyond their usual classroom teaching to learn about salmon, their watersheds, and how to keep their watersheds clean and healthy for future generations. This year, SFEG partnered with the Department of Fish and Wildlife to offer Salmon in the Classroom to several elementary schools; SFEG also continues to offer Junior Stream Stewards to over 400 middle school students as well as Kids in the Creeks for those that are unable to commit to longer programs. Clean Water Funds also help SFEG ensure adults and families have ample opportunities to learn and explore our watersheds. Last year we hosted several watershed tours; participants were treated to excellent salmon viewing and learned about the habitat and restoration projects occurring in their watersheds. SFEG also held Family Day at the Park where community members from all over the Samish watershed came to learn about the critters that call Friday Creek home, and how poor water quality impacts both critters and humans.

SFEG involves hundreds of volunteers of all ages each year in planting trees, counting salmon, helping in our native plant nursery, and much more. These volunteers range in age from pre-school to retirees many of which come back year after year. Each volunteer is made aware of the importance of the work they are doing for the watershed, which is one of the reasons they continue to return. For more information about how you can help keep water clean for future generations, please visit [www.skagitfisheries.org](http://www.skagitfisheries.org) or call 360-336-0172.



*Left: An interpretive sign placed at Donovan Park describes the ecosystem of Friday Creek.*



*Above: Edison Elementary students look at Salmon eggs at the Samish Hatchery, as part of the Junior Stream Stewards program.*

# The Skagit Conservation Education Alliance



Since 2002, the Skagit Conservation Education Alliance (SCEA) has worked to protect water quality in the Skagit and Samish Watersheds through public outreach and education, programs, and community events throughout Skagit County.

In 2010, SCEA participated in numerous events, including the annual *Bivalve Bash* at Taylor Shellfish featuring the famous low tide Mud Run. About 1,500 people attended the event, which included live music, great food from numerous local restaurants, and educational information about water quality and environmental issues in Skagit County and Puget Sound. The next Bivalve Bash and Mud Run is scheduled for July 16, 2011.

As part of SCEA's Businesses for Clean Water Program, SCEA also sponsored and held three Construction Stormwater Management Workshops, providing operators of boatyards and boat repair shops with information on pollution and stormwater management practices. SCEA also sponsored and hosted two Septics 101 classes in cooperation with the Skagit County Health Department.

SCEA continues to partner with the Clean Samish Initiative (CSI) providing clean water information in an effort to educate the public on the issues facing the Samish watershed and ways in which the public can be a part of a solution. As part of the CSI, SCEA also coordinates a Sanican Timeshare Program. Improperly disposed of human waste adds to fecal coliform pollution and ruins local shellfish beds. To alleviate this form of local pollution, SCEA places portable toilets in popular recreational areas void of bathroom facilities, including fishing areas and hunting grounds.

SCEA's mission is to bring people together in the spirit of cooperation to protect, conserve, and enhance the natural ecosystems in the Skagit Watershed. SCEA is a community-based, non-profit organization that works with all watersheds in Skagit County. For more information and a list of current and upcoming activities, visit [skagitcleanwater.org](http://skagitcleanwater.org) or contact Steve Olsen at [steveo@skagitcleanwater.org](mailto:steveo@skagitcleanwater.org).

A green rectangular sign with white text that reads 'SAMISH RIVER'.

A white rectangular sign with blue text that reads 'YOURS TO PROTECT'. It features a blue illustration of a fish swimming to the right.

A blue rectangular sign with white text that reads 'FLOWS TO SAMISH BAY'. It features a white illustration of a river winding through a landscape.

*These new Samish River watershed signs were installed throughout the Samish watershed at all stream crossings to remind everyone that these rivers and their many tributaries all drain to Samish Bay.*



*Right: Local participants compete in the annual Mud Run*

# Skagit County

**Corinne Story, Skagit County Environment  
Public Health Manager**

When disaster strikes, you often hear ‘safe drinking water.’ What you don’t hear is ‘safe sewage treatment.’ Think about Haiti and the earthquake, and now the cholera outbreak with thousands afflicted. The fact is, it’s hard to convince people that safe sewage treatment and disposal, and safe drinking water are extremely closely connected; you can’t have one without the other.

Though we haven’t had a cholera outbreak in Skagit County, we still have sewage and it still needs proper treatment and disposal. Not only for our own health, but for the health of our water and everything it supports.

## What your Public Health Department Clean Water Program dollars have accomplished in 2010

Skagit County Public Health started with an estimate of 20,000 septic systems for all of Skagit County. We now think that number may be low, and that there may be closer to 25,000 or more. As we work in each of the Marine Recovery Areas (MRAs) and Sensitive Areas (SAs), and we hear from the public, one property at a time, we refine our data to present a truer picture. To date, here are the numbers we have for the MRAs and SAs:



**Above: Direct discharge of a home septic tank effluent into a ditch east of Sedro-Woolley**

In the table (right), we categorized ‘pump only.’ An inspection is not just getting your tank pumped; a complete septic system inspection should happen first. The inspection determines whether the tank needs pumping! If the sludge and scum levels in the tank are not deep enough, it’s unnecessary to spend hundreds of dollars to get the tank pumped. Keep in mind, an inspection of the entire septic system usually runs \$150 - \$250; a tank pumping is about \$400. By all means, get your system inspected every year. Whether or not your tank needs pumping, a regular inspection may save your drainfield from failing before it’s time. Replacing a drain field is usually in the thousands of dollars to complete.

	Inspection	Inspection - Corrections Needed	Inspection - Failure	Pump Only	TOTAL
Bayview	133	9	1	17	160
Guemes Island	38	3	0	3	44
Nookachamps	29	3	2	9	43
Similk Beach	36	0	1	0	37
Yokeko Point, Dewey Beach, and Quiet Cove <sup>100</sup>	100	1	0	6	107
<u>Samish Watershed</u>					
Samish Island	152	5	0	3	160
Lower Samish	165	13	4	9	191
Upper Samish	100	6	4	16	126
Colony Creek	87	13	1	184	285
Thomas Creek	49	0	1	7	57
Total Samish Watershed	553	37	10	219	819
<b>GRAND TOTAL</b>	<b>889</b>	<b>53</b>	<b>14</b>	<b>254</b>	<b>1210</b>

Skagit County Public Health has learned about properties lacking onsite sewage systems and properties with minimal sewage disposal needs. We also know of a few true hardship cases and are investigating ways we can help individuals resolve them.

# Onsite Sewage Program

## Septics 101 and Septics 201 make a comeback



*Septic tank baffle screen inspection in progress*



*Septic tank inspection in progress*

By leveraging some of the CWP dollars, we received grant dollars from the both the state Department of Health and the Environmental Protection Agency to help bring our septics education back.

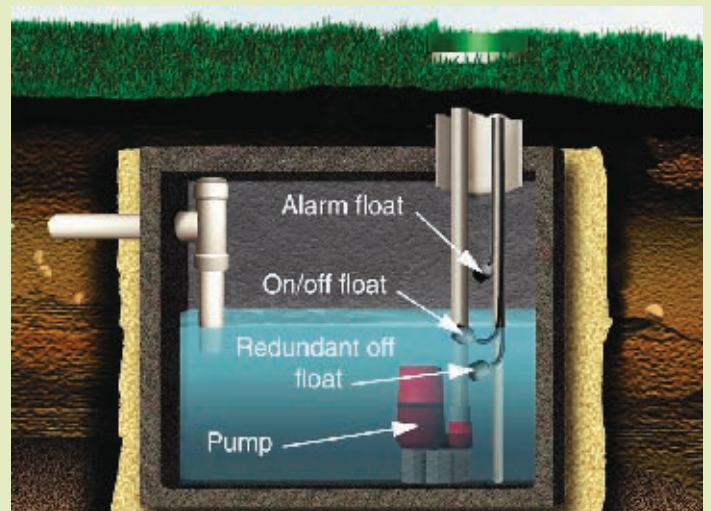
### **The next Septics 101 classes are scheduled for:**

**April 25 – 6:30 – 8:00 p.m. at the Padilla Bay Research Center**

**May 17 – 2:00 – 3:30 p.m. at Sedro Woolley City Hall**

**July 12 – 6:30 – 8:00 at the Alger Community Hall**

Septics 201 classes have taken on a different look altogether. Demonstration drain fields have been installed at the WSU Research Extension office. You can see how water moves through a drain field, without having to see all the other 'stuff' that is in a sewage system. We are also working to bring our Septics 101 classes to you online. In cooperation with neighboring Counties, we hope to have video training available to you 24/7 via the Skagit County web site soon.



*This pump tank receives sewage from a septic tank and mechanically directs it to the drainfield with a pump (not by gravity). Pump tanks are necessary where the drainfield is located either uphill of the septic tank or when poor site conditions necessitate the use of an alternative septic system. The on/off float turns the pump, which sends a batch of clarified sewage to the drainfield. The high water alarm float notifies the home or business owner of a problem that needs immediate attention and to stop producing sewage. The redundant on/off float is a back-up float to the on/off float; it assures that the sewage level does not drop too low causing the pump to fail, which may lead to tank explosion.*

- By having your onsite sewage system inspected by a certified specialist, you may catch a small problem that could become a BIG problem later. This could actually save you money in the long run!
- Septics education means you will know how to care for your system. This could save you both money and headaches.
- An inspection is not a tank pumping and a pumping is not an inspection. In fact, an inspection may reveal that you do NOT need your tank pumped. That would be nice to know.

# Fish Habitat Monitoring and Restoration Program

Samish Chinook



The Fish Habitat Monitoring and Restoration Program is an ongoing County program dedicated to protecting and restoring fish and fish habitat. The program encompasses a myriad of activities, programs, and projects including habitat monitoring, culvert replacements, stream restoration, revegetation of riparian areas, feasibility studies for major habitat projects, and off-channel habitat reconnection projects.

Projects designed to improve fish habitat also typically improve water quality. 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. Reconnection of streams to their floodplains and restoration of floodplain function decreases flooding, which in turn reduces erosion and pollutant loads to bays during flood events.

## 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. A County monitoring team surveys, records, and documents

channel and in-stream habitat conditions at randomly selected sites throughout the Skagit Watershed. Twenty annual sites are surveyed every year and 60 sites are monitored every five years. The monitoring team looks at sediment quality, pool frequency, quality of riparian areas around streams, presence of woody debris, and other parameters. Monitoring takes place every year from June to October. The nature of habitat change in the stream environments is such that it is too early in the study to make any meaningful determination of whether significant changes have occurred since the study began. In 2010, the County completed surveying of the annual 20 sites.

## Fish Passage

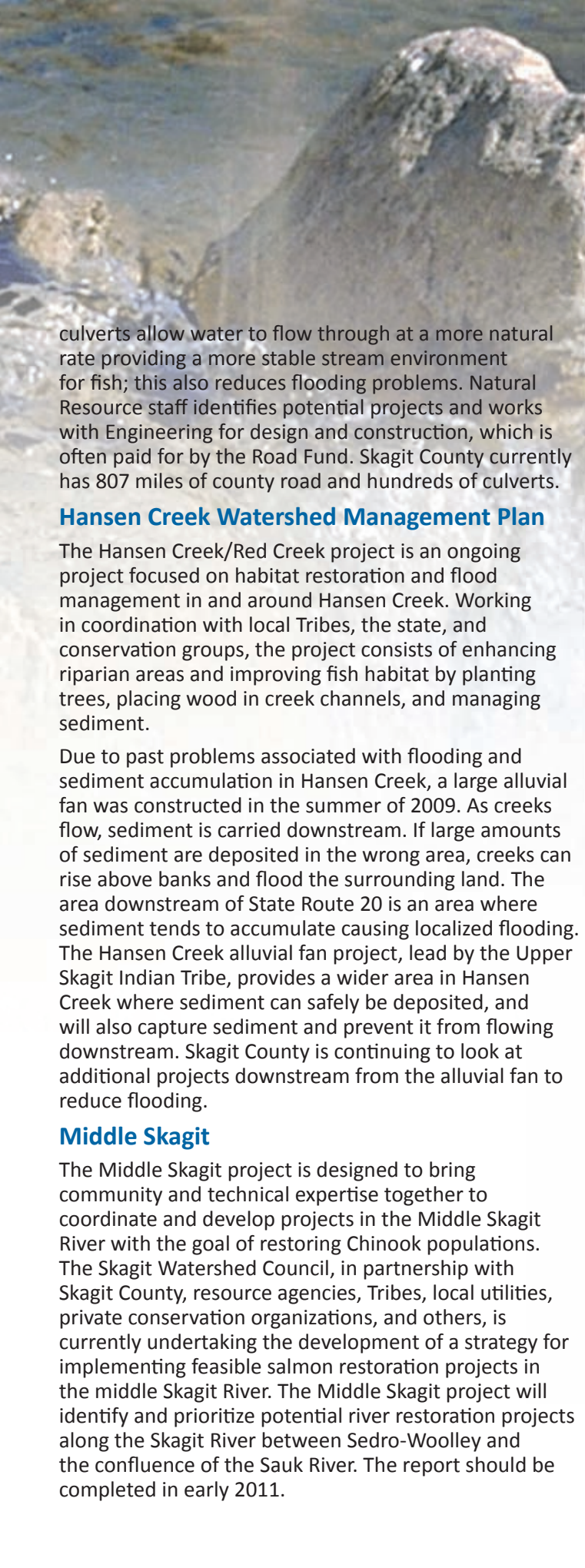
In order to complete their spawning migration, salmon must be able to swim upstream to riffles where they can lay eggs before dying. Some culverts under Skagit County roads, however, act as barriers for fish attempting to make the upstream migration. Small culverts oftentimes present a velocity barrier for fish attempting to migrate through them. When this happens, water rushes through the culvert and pours out with such force that fish cannot swim against the stream thereby preventing their spawning migration. Perched culverts also prevent fish from jumping and entering the culvert. To prevent these problems, Skagit County Public Works often replaces small, inefficient culverts with larger culverts. Large



*An old culvert at Gravel Creek: This culvert acts as a barrier for fish migrating upstream as the fish are forced to jump up and into the culvert to pass through.*



*A new culvert at Gravel Creek: This culvert allows fish to swim upstream easily. It is also able to manage the flow of water that may come with rising water levels.*



culverts allow water to flow through at a more natural rate providing a more stable stream environment for fish; this also reduces flooding problems. Natural Resource staff identifies potential projects and works with Engineering for design and construction, which is often paid for by the Road Fund. Skagit County currently has 807 miles of county road and hundreds of culverts.

### **Hansen Creek Watershed Management Plan**

The Hansen Creek/Red Creek project is an ongoing project focused on habitat restoration and flood management in and around Hansen Creek. Working in coordination with local Tribes, the state, and conservation groups, the project consists of enhancing riparian areas and improving fish habitat by planting trees, placing wood in creek channels, and managing sediment.

Due to past problems associated with flooding and sediment accumulation in Hansen Creek, a large alluvial fan was constructed in the summer of 2009. As creeks flow, sediment is carried downstream. If large amounts of sediment are deposited in the wrong area, creeks can rise above banks and flood the surrounding land. The area downstream of State Route 20 is an area where sediment tends to accumulate causing localized flooding. The Hansen Creek alluvial fan project, lead by the Upper Skagit Indian Tribe, provides a wider area in Hansen Creek where sediment can safely be deposited, and will also capture sediment and prevent it from flowing downstream. Skagit County is continuing to look at additional projects downstream from the alluvial fan to reduce flooding.

### **Middle Skagit**

The Middle Skagit project is designed to bring community and technical expertise together to coordinate and develop projects in the Middle Skagit River with the goal of restoring Chinook populations. The Skagit Watershed Council, in partnership with Skagit County, resource agencies, Tribes, local utilities, private conservation organizations, and others, is currently undertaking the development of a strategy for implementing feasible salmon restoration projects in the middle Skagit River. The Middle Skagit project will identify and prioritize potential river restoration projects along the Skagit River between Sedro-Woolley and the confluence of the Sauk River. The report should be completed in early 2011.

# NATURAL RESOURCE STEWARDSHIP PROGRAM

*Grant funding to  
enhance **YOUR**  
watershed*

*Cleaning up and enhancing streamside land is difficult, but the Skagit County Natural Resource Stewardship Program (NRSP) is making an effort to help. By applying to the program, landowners can receive free grant funding for assistance in watershed enhancement.*

This program, started in 2009, works with individual landowners who live on, or own property next to a stream and want help in protecting or enhancing their land to improve the habitat and water quality of their watershed. Among many other projects, assistance can come in the form of streamside plantings, fish habitat restoration, and fence construction for livestock exclusion.

### **Restoring Riparian Areas**

The NRSP helps remove streamside invasive plants such as blackberry bushes, Japanese knotweed, Reed Canary Grass and English Ivy in order to re-establish native vegetation such as Red Alder, twinberry, vine maple, and Western Red Cedar. This provides protection for juvenile salmon as well as shade to help keep the water cool. Effective riparian areas also filter out harmful pollutants such as soil runoff, fertilizers, and herbicides. NRSP works with landowners to choose attractive native plants while still benefiting the water quality of the stream.



*(Continued on next page)*

# NATURAL RESOURCE STEWARDSHIP PROGRAM

(Continued from previous page)



## Keeping Livestock out of Streams

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

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

The Stewardship Program can help construct fences to prevent these problems from happening.



## Restoring Fish Habitats and Stream Banks

To create healthy fish habitat in the form of pools and riffles, northwest streams need wood in stream channels. Stream habitat can be improved with small-scale rootwad and log installation. Rootwads and logs enhance the natural habitat and help to prevent bank erosion.

## Completed Projects

Since 2009, NRSP has worked with seven landowners in three watersheds and has completed five projects. NRSP has successfully restored or enhanced over 2.7 acres in Carpenter Creek, Bulson Creek, and the Samish watershed. This work has included the installation of over 2,300 feet of livestock exclusion fencing, more than 3,300 native plantings, 18 large woody debris structures (used for bank stability as well as increased channel complexity) and one livestock crossing.

***A NRSP project completed on a small Cranberry Lake tributary. Horses had unrestricted access to the streambed which resulted in an increase in fecal coliform, sedimentation, increased turbidity, and muddy pastures. The NRSP restoration project included the installation of a culvert, a livestock crossing, 1,258 feet of stream fencing, and the planting of 311 native plants to help improve water quality and bank stability, enhance fish and wildlife habitat, and protect animal health.***

For more information, or to see if you are eligible to partake in the program, visit [www.skagitcounty.net/NRSP](http://www.skagitcounty.net/NRSP) or contact Emily Derenne at [emilyjd@co.skagit.wa.us](mailto:emilyjd@co.skagit.wa.us).



# Stormwater

In Skagit County, we are intimately tied to water. From the Skagit River to the shores of Padilla Bay, water plays an important role in our daily lives. The water around us starts as precipitation and then travels across our landscape as stormwater. As stormwater travels untreated to its final destination, the Puget Sound, it collects, dissolves, and carries with it numerous pollutants. Our activities on land can pollute our local waters with yard chemicals, oil, grease, soap, and bacteria from pet waste and failing septic systems.

## Stormwater in Skagit County

Stormwater runoff is a serious problem in Skagit County and is recognized as one of the leading sources of pollution to streams, lakes, wetlands, and Puget Sound. In 2007, in an effort to meet the goals of the Federal Clean Water Act, Skagit County was issued a National Pollutant Discharge Elimination System (NPDES) Phase II Stormwater Permit.

“The permit originally concentrated on large point sources of pollution such as factories and sewage treatment plants. As those sources have been brought under control, EPA and Ecology have placed more emphasis on stormwater and other nonpoint sources of pollution,” said Mike See, Stormwater Coordinator for Skagit County Public Works.

## What does the permit do?

Skagit County’s Municipal Stormwater Permit improves and protects the quality of stormwater by focusing permit requirements on the following areas:

- **Public participation, education, and outreach**
- **Illicit Discharge Detection & Elimination**
- **Runoff control from development**
- **Pollution prevention for municipal operations**

## Making progress

Skagit County continues to make excellent progress towards the improvement of stormwater quality by partnering with the Skagit Conservation District for education and outreach, successfully revising the Drainage ordinance (S.C.C. 14.32), providing staff training, sampling outfalls to identify problem areas, creating a GIS base map of the County’s stormwater facilities, preparing investigation reports of illicit discharges and spills, creating a stormwater pollution hotline (360) 336-9400, and developing IDDE guidelines for County staff.

Funding for the Stormwater Management Program is provided primarily by the Drainage Utility with help from the Clean Water Program.

For more information on the program, visit [www.skagitcounty.net/stormwater](http://www.skagitcounty.net/stormwater) or contact Michael See at [michaels@co.skagit.wa.us](mailto:michaels@co.skagit.wa.us).



A group of students stencil local storm drains. “Dump no waste, Drains to River,” helps inform the public about the consequences of dumping in local storm drains.



# Skagit Marine Resources Committee

There are over 275 miles of marine shoreline in Skagit County that help support a diverse community of plants, fish, and wildlife. Unfortunately, the health of the Puget Sound is in serious decline. In 1999, the Skagit County Marine Resources Committee (SMRC) was established as part of a grassroots effort to protect and restore our local marine resources. Through multiple partnerships and a large volunteer base, the SMRC is able to keep project costs low and achieve long-term success. SMRC is primarily supported by federal grant funding through the Northwest Straits Marine Conservation Initiative, and partly by the Clean Water Program.



*Local volunteers demonstrate how to use a beach seine at Fidalgo Bay Day to collect fish and other sea creatures for children to view.*

## Habitat restoration

In 2010, trained volunteer kayakers surveyed over 33 miles of Skagit County shoreline for the invasive saltwater weed, *Spartina*. The SMRC also removed rock groins at the East March's Point boat launch in order to restore forage fish spawning habitat and completed a drift cell study for north Skagit Bay to identify and prioritize potential restoration projects.

## Native oyster restoration

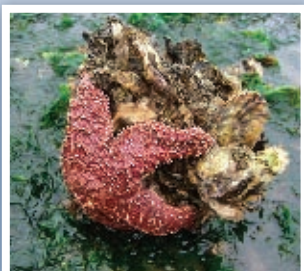
Since 2002, the SMRC has planted over 1,365,000 Olympia oyster seeds at the Fidalgo Bay trestle and has added over 30 bags of Pacific oyster shell as substrate for new oyster settlement. Monitoring occurs annually to evaluate the success of this program.

## Outreach and education

Public education and community involvement is integral to SMRC's work. The committee relies heavily on the support of trained volunteers. The majority of the SMRC volunteers are trained through the Washington

*Local volunteers survey the shoreline for invasive *Spartina*.*

State University's Beach Watcher program. In 2010, Beach Watcher volunteers contributed over 400 hours towards SMRC projects. One notable event, the Fidalgo Bay Day, is an annual educational event supported and organized by the SMRC. The event includes educational displays, children's activities, a beach seining demonstration, and samples of local oysters and chowder. Thanks to the many volunteers, donations, and multiple partnerships, this event has been a great success every year.



## What to watch for in 2011

Some of the new projects proposed for 2011 include a drift cell study at Guemes Island, an educational community beach seining event at Ship Harbor, and forage fish spawning habitat restoration at Shannon Point. These projects will help identify and prioritize potential restoration projects, educate the community on local marine life, and restore the natural environment of sediment and fish spawning habitat.





The Skagit Conservation District (SCD) has worked with local landowners and farmers to manage natural resources in Skagit County since 1942. All programs provided by the SCD are voluntary and free of charge. The mission of the SCD is to provide voluntary, incentive based options that support working landscapes while protecting and enhancing our natural resources. Priorities and goals include:

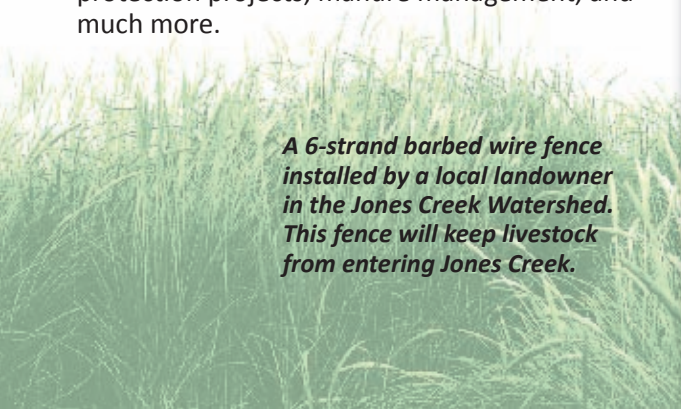
- Protection and improvement of surface and groundwater quality
- Watershed planning and implementation
- Riparian restoration and enhancement
- Forest stewardship
- Community wildfire prevention and protection
- Fish and wildlife habitat enhancement

These goals are met through SCD's extensive technical assistance and public outreach programs.

### **Resource Conservation Planning and Technical Assistance for Farms Large and Small:**

The SCD has a wealth of information concerning water quality issues, management of small and large farming operations, and implementation of best management practices (BMPs). Today more than ever, farmers need to farm more intelligently, more economically, and in greater harmony with the environment. Wise planning and management reduce costs and protects our soil and water resources against degradation.

The Skagit Conservation District provides free technical assistance to farmers and landowners who seek out ways to minimize the 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.



*A 6-strand barbed wire fence installed by a local landowner in the Jones Creek Watershed. This fence will keep livestock from entering Jones Creek.*

Over the last year, the SCD provided technical assistance to 11 dairies, nine commercial livestock producers, and 25 small farm landowners; two new dairy nutrient management plans were completed, four dairy nutrient

***“Today more than ever, farmers need to farm more intelligently, more economically, and in greater harmony with the environment.”***

plans were updated and one dairy nutrient management plan was certified as implemented; conservation plans were completed for nine small farm landowners and four non-dairy commercial livestock producers. Projects included the installation of 4,484 feet of riparian fencing, 100 feet of gutters, one manure storage facility, six fencing designs, two roof runoff management designs, one manure transfer project and three solar powered water pump systems. \$16,800.85 in cost share funds were distributed to local landowners for the installation of BMPs.

For more information about SCD's technical assistance program or to schedule a site visit, contact John Schuh, Skagit Conservation District at 428-4313 or at [john@skagitcd.org](mailto:john@skagitcd.org).

*(Continued on next page)*





# Skagit Conservation District

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## Engaging the Community:

The SCD values learning and applied education; most all programs of the SCD serve to educate the public. The Conservation District offers several popular community volunteer programs and many environmental education opportunities for youth and adults in our area.

- 24 community residents participated in the Marine Biotoxin Monitoring program, conducting 79 sampling events at 10 local recreational shellfish harvesting beaches.
- 74 volunteers participated in the Skagit Stream Team program, monitoring 54 priority stations twice a month for fecal coliform, temperature, turbidity, dissolved oxygen, and depth. Stations are located in the Padilla Bay, Samish, Fisher Creek, Kulshan Creek, Trumpeter Creek, Gages Slough, Brickyard Creek, and Nookachamps basin.
- A volunteer storm-monitoring program was kicked off this year in the No Name Slough and Bay View watershed with eight participating Storm Team volunteers.
- 28 community residents completed the fall 2010 Watershed Masters Volunteer Training program. 4,099 Watershed Master volunteer hours were reported in 2010.
- Skagit Valley earned national designation as a "Community Wildlife Habitat" with support from the Skagit Valley Backyard Wildlife Habitat Team volunteers.
- SCD provided nine presentations on Low Impact Development to 225 people.
- Over 700 students participated in the annual Sixth Grade Conservation Tour held at Pomona Grange Park in May.
- 222 posters were entered for the Annual Soil and Water Stewardship poster contest for local youth.
- 30 stormwater education presentations were provided to 950 county students.



**Local volunteers watch as Skagit County Water Quality Analyst, Rick Haley, instructs on how to collect a sample of water for testing. Stream Team volunteers monitor year-round to ensure the health and quality of local waterways.**

## Clean Samish Initiative:

During 2010, SCD provided a key role in addressing fecal coliform pollution in the Samish Watershed. As a local Clean Water Partner, SCD served on the Clean Samish Initiative planning committee, provided technical assistance and cost-share funding for Samish residents, coordinated numerous education events and activities, and worked one-on-one with community volunteers and neighbors to help improve water quality in the Samish basin. Key accomplishments included:

- Farm planning technical assistance for 36 Samish watershed landowners and 19 farm plans
- 21 best management practices treating over 400 acres of land
- \$9,260.98 in cost share funds provided to Samish landowners for implementation of nine structural best management practices
- 12 educational workshops reaching over 400 individuals, including eight technical seminars related to land use management, three educational workshops targeting a broader audience, and a family oriented "Family Night on Samish Bay" providing an opportunity for over 50 Samish neighbors to learn about water quality and Samish Bay shellfish resources
- The first edition of the "Clean Samish Initiative Quarterly Report," which was published and mailed to over 5,600 Samish residents to inform residents of activities being conducted in the watershed and to inspire local stewardship practices



# Lake Management Districts

Local lakes provide aesthetic appeal and opportunities for recreational boating, swimming, and fishing. However, several of our lakes have been severely impacted by invasive aquatic weeds. Noxious weeds can spread rapidly and negatively impact the beneficial uses of lakes by reducing recreational access, posing as safety hazards to lake users, degrading water quality, and damaging the aquatic ecosystem.

The Skagit County Lake Management Districts Program (LMDP) was created to provide lake area property owners a mechanism to fund the management of noxious weeds through special assessments. The County provides oversight, administrative help, and implements the recommendations of the Lake Management District Advisory Committees. Currently, Big Lake, Lake McMurray, Lake Erie, Lake Campbell, Clear Lake, and Beaver Lake

are enrolled in the LMDP. These six lakes make up four Lake Management Districts. With the help of the LMDP many lakes have successfully reduced or eradicated the growth of noxious weeds and controlled nuisance aquatic vegetation.

For more information on the SMRC and LMDP, contact Tracy Alker at [tracya@co.skagit.wa.us](mailto:tracya@co.skagit.wa.us).

**Right: Milfoil**

**Below: A diver surveys invasive aquatic weeds in Clear Lake.**





# Clean Water Video

## *The Samish River: A Clean Water Initiative Video*

In December 2010, Skagit County Public Works produced a Clean Samish video that is now available for viewing! The video describes and discusses the fecal coliform bacteria pollution issue in the Samish Watershed and the efforts being taken to correct the problem. Compiled of interviews with local leaders in the Clean Samish Initiative along with dynamic visuals and flyovers of the Samish Watershed, the video is intended to serve as an educational tool to draw awareness to our local problem.

Please view the video and pass it along to other Samish Watershed residents to raise awareness and support in the clean-up efforts in the Samish Basin. The video is currently available online at [www.skagitcounty.net/cleanwater](http://www.skagitcounty.net/cleanwater). For more information on the video, or to get copies, email Emma Whitfield at [emmaw@co.skagit.wa.us](mailto:emmaw@co.skagit.wa.us)



*Left: The Skagit Conservation District's Fall 2010 Watershed Masters class spent an evening session at Taylor Shellfish farms learning about local shellfish resources, water quality, and the Clean Samish Initiative.*

# Skagit County Clean Water Budget Summary

Programs	2010			2011		
	Actual Expenses and Revenues			Budgeted Expenses and Revenue		
	Expenses	Revenues		Expenses	Revenues	
	Expenditures	Grants	Assessment Distribution	Expenditures	Grants	Assessment Distribution
<b>Clean Samish Initiative</b>						
Skagit Conservation District	\$ 114,817	\$ 33,658	\$ 81,158	\$ 134,000	\$ 87,200	\$ 46,800
Samish Nation	\$ 121	\$ 121		\$ 11,000	\$ 11,000	
Skagit Conservation Education Alliance	\$ 3,237		\$ 3,237	\$ 11,163	\$ 7,163	\$ 4,000
Skagit Fisheries Enhancement Group	\$ 8,103	\$ 3,137	\$ 4,966	\$ 17,830	\$ 6,830	\$ 11,000
Western Washington Agricultural Association	\$ 4,083		\$ 4,083	\$ 11,123	\$ 7,500	\$ 3,623
WSU-Cooperative Extension				\$ 8,678	\$ 8,678	
Skagit County Planning & Development Services Department	\$ 2,451	\$ 2,451		\$ 90,268	\$ 60,179	\$ 30,089
Skagit County Public Health Department	\$ 26,477	\$ 17,740	\$ 8,737	\$ 146,828	\$ 97,885	\$ 48,943
Skagit County Public Works Department	\$ 44,971	\$ 10,845	\$ 34,126	\$ 42,273	\$ 34,224	\$ 8,049
<b>Critical Areas Ordinance</b>						
Adaptive Management	\$ 25,320		\$ 25,320	\$ 29,537		\$ 29,537
Fish Habitat Monitoring	\$ 13,775		\$ 13,775	\$ 69,639		\$ 69,639
Surface Water Quality Monitoring	\$ 93,295		\$ 93,295	\$ 177,387		\$ 177,387
<b>Fish Habitat and Restoration</b>						
Habitat and Restoration	\$ 232,066	\$ 42,814	\$ 189,252	\$ 127,185	\$ 73,112	\$ 21,948
Hansen Creek Floodplain Restoration (Alluvial Fan)	\$ 1,025,106	\$ 1,013,915	\$ 11,191			
Natural Resources Stewardship Program	\$ 92,204	\$ 86,198	\$ 6,006	\$ 128,500	\$ 96,375	\$ 32,125
<b>Marine Resources</b>						
Marine Resources Committee and Action Items	\$ 92,274	\$ 74,286	\$ 17,987	\$ 209,464	\$ 168,246	\$ 41,218
<b>Lake Management</b>						
District and Non District Lakes	\$ 21,765	\$ 2,674	\$ 19,091	\$ 34,648		\$ 34,648
<b>Clean Water Program Partner Agencies/Organizations</b>						
Skagit Conservation District	\$ 166,842		\$ 166,842	\$ 243,000		\$ 243,000
Skagit Conservation Education Alliance	\$ 12,000		\$ 12,000	\$ 12,000		\$ 12,000
Skagit Fisheries Enhancement Group	\$ 25,134		\$ 25,134	\$ 30,000		\$ 30,000
Skagit Watershed Council	\$ 2,990		\$ 2,990	\$ 30,000		\$ 30,000
Western Washington Agricultural Association	\$ 15,917		\$ 15,917	\$ 20,000		\$ 20,000
Skagit County Public Health Department	\$ 21,984		\$ 21,984	\$ 10,047		\$ 10,047
<b>Groundwater Management</b>						
Sea Water Intrusion	\$ 781		\$ 781	\$ 1,500		\$ 1,500
<b>Administration</b>						
General Administration	\$ 225,083		\$ 225,083	\$ 173,436		\$ 173,436
Central Services	\$ 181,391		\$ 181,391	\$ 125,303		\$ 125,303
Training	\$ 8,660		\$ 8,660	\$ 30,299		\$ 30,299
Communications & Outreach	\$ 4,493		\$ 4,493	\$ 20,000		\$ 20,000
<b>Total</b>	<b>\$ 2,465,340</b>	<b>\$ 1,287,840</b>	<b>\$ 1,177,500</b>	<b>\$ 1,945,108</b>	<b>\$ 658,392</b>	<b>\$ 1,254,591</b>

## Grant Funding Sources

Clean Samish Initiative: Pollution Identification and Correction  
 Natural Resources Stewardship Program  
 Habitat Land Acquisition  
 Hansen Creek and Red Creek Restoration  
 Marine Resources Committee and Action Items  
 Hansen Creek Flood Plain Restoration Project (Alluvial Fan)

U.S. Environmental Protection Agency  
 National Fish & Wildlife Foundation/Washington Department of Ecology  
 Salmon Recovery Funding Board  
 Washington Department of Ecology  
 National Oceanic & Atmospheric Administration/Washington Department of Ecology  
 American Recovery & Reinvestment Act/National Oceanic & Atmospheric Administration

## 2010 education, outreach, and water quality correction efforts in the Samish Basin

### Current Water Quality Monitoring

- 11 ambient sites every two weeks
- 20 storm sites at every rain event greater than 0.33"

### Landowner contact

- Skagit County has sent more than 200 letters to all property owners in the upper Thomas Creek area, the Middle Samish, and Middle Samish Tributaries.

### Property inspections (by area)

- Thomas Creek
  - ~ 24 parcels total with 21 owners
  - ~ 3 inspected parcels
  - ~ 14 drive-by inspections by Skagit County
  - ~ 2 refusals
  - ~ 1 referral to the Conservation District
- Middle Samish
  - ~ 95 parcels total with 69 owners
  - ~ 17 site inspections
  - ~ 49 drive-by inspections by Skagit County
  - ~ 4 visits by the Department of Ecology
  - ~ 2 referrals to the Conservation District
  - ~ 3 referrals to Skagit County Planning and Development Services
- Samish to Highway 99 and Tributaries
  - ~ 51 responses to sent letters
  - ~ Site visits to begin late-April, 2011

### Education and Outreach

- Over 14 workshops and family events conducted on various topics including horse management, small farm management, stormwater, gardening for wildlife, plant maintenance, etc.
- Junior Stream Stewards program in local elementary schools
- Two editions of the Clean Samish Quarterly newsletter mailed to every stop in the Samish Basin
- New media presence on Facebook

# CLEAN WATER

## Skagit County 2010 ANNUAL REPORT

Editor, Emma Whitfield,  
Skagit County Public Works

Graphics and Printing,  
Snohomish Publishing Company, Inc.

