

# Clean Samish Initiative

Quarterly Report

Fall 2010

*This report is the first in a series that will be published on a quarterly basis to introduce you to watershed-based management activities that are being conducted in the Samish Watershed. Those of us living, working, or playing in this beautiful watershed must act cooperatively and effectively in order to protect the water quality health and ensure stewardship of Samish Bay and its freshwater rivers, streams, and tributaries.*



*"Moon Over Samish"* by Elaine Lease, Mount Vernon

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# Introducing the Clean Samish Initiative (CSI)

Clean water is everybody's business; Skagit County Public Works, Health Department, Skagit Conservation District, Ecology and . . . **YOU**.

The CSI effort was put together to identify sources of fecal contamination and find ways to correct them.

**Why?** High fecal coliform levels in Samish Bay, the Samish River and its tributaries are a health risk. It's also threatening the quality of life you enjoy in the Samish Watershed.

**What's being done?** Skagit County and many partners are starting a Pollution Identification and Correction Program (PIC). Water quality monitoring identifies hot spots for fecal bacteria; then through education, outreach and site visits, the more specific cause for the contamination is identified and the **problem can be fixed**. There are resources that can help reduce the cost of correcting problems that cause fecal contamination and we want to **get you connected**.

We much prefer the 'e' word – education, over the other 'e' word – enforcement. We know it won't come to enforcement for the great majority of you, but the other 'e' word is in the PIC plan. If there are sources of fecal coliform contamination identified and there is no progress on the property owners' part to correct the problem, enforcement through orders or fines may have to happen.

This is the first of a progress report that will be arriving at your doorstep quarterly. You can help, you can **get connected** and learn things you can do on your property, you can help your neighbors too. We look forward to that day when we can say the Samish Watershed is CLEAN!

Visit the County's Samish web-site for updates and water quality information:  
[skagitcounty.net/cleanwater](http://skagitcounty.net/cleanwater) (then click on **Clean Samish**).

There is also a dedicated email address if you have questions: [SamishEPAGrant@co.skagit.wa.us](mailto:SamishEPAGrant@co.skagit.wa.us)

## Samish Watershed and water quality – the past 20 years

*Less famous than the Jack-in-the-Box E. coli 0157 outbreak of the 1990's, Samish has its own history. Like the E. coli outbreaks, changes were made, out of which came good things. There is a whole lot of story between the lines here --*

1994 – Norovirus outbreak sickening dozens of people (including several rugby teams).

*Of the roughly 11,000 acres of Samish Bay tidelands, 485 acres were downgraded from approved to restricted. 2,205 acres went from approved to prohibited.*

1996 – All Blanchard septic systems repaired and upgraded.

1998 – Edison brought on-line a community sewer treatment plant in 1998; first serving Edison School. The rest of the community was connected to this system in 1999.

*350 acres of shellfish beds upgraded from prohibited to conditionally approved.*

2002 – Conditionally approved area upgraded to approved. Prohibited the same as it was in 1998.

*Some of you may remember the annual 'poop parade' that was held to celebrate Edison and Blanchard's success in resolving their sewage problems. There was even a 'poop princess' appointed to lead the procession. High honors indeed.*

2008 to present day – Monitoring shows high fecal coliform counts in many places throughout the watershed. Shellfish beds subject to frequent closures when the rains come.

### Want to know more history?

See [http://www.samishisland.net/si\\_historytimeline.html](http://www.samishisland.net/si_historytimeline.html)

# Water Quality Sampling in the Samish Basin

By: Rick Haley, Skagit County Public Works



Taking a water sample.

Skagit County's water quality sampling program in the Samish Basin includes both regular ("ambient") sampling occurring every two weeks, and storm sampling that occurs after significant rainfall. Skagit County data is used in the County's Pollution Identification and Correction (PIC) program to determine which parts of the watershed have the highest pollution levels. These areas can then be targeted for improvement by working with landowners in those areas to reduce pollution sources.

Skagit County's PIC sampling program greatly increases the number of sampling locations in the Samish Basin in order to determine the locations where fecal coliform pollution appears in the river. The County has established nine new sampling locations on a 10-mile stretch of the river (including two on tributaries in this reach). This reach of the river was chosen based on water quality data collected by Storm Team volunteers, which indicated that fecal coliform pollution increased in this stretch during rainstorms. Between the ambient and PIC sampling, Skagit County samples at more than 20 locations in the basin.

***Fecal coliform get in the water when feces (that's right, poop!) are washed into the river or tributaries during rainstorms. Bacteria can also reach the water via direct deposit from livestock, pets or septic tanks. The bacteria can travel long distances to reach the river, so every tributary stream and ditch in the Samish Basin is a potential part of the problem.***

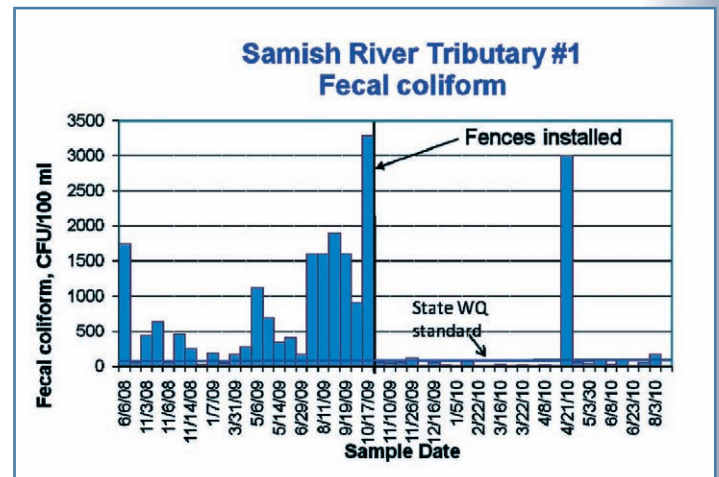
The water quality data generated from these new and existing sites is then used to prioritize areas for voluntary landowner inspections. Under this part of the PIC program, County Health and Planning staff request permission from landowners to visit their property to look for sources of pollution. These sources might include failing on-site sewage treatment systems (septic tanks), pet waste, and livestock manure. If potential water pollution sources are found, the landowners are asked to work with the County Health Department for sewage and pet waste issues or the Skagit Conservation District for agricultural issues, especially livestock manure management.

Skagit County data continues to show excessive amounts of fecal coliform bacteria in many areas of the Samish Bay Watershed. The counts are especially bad during rainstorms. The County's new Pollution Identification and Correction (PIC) program is

designed to detect and eliminate the sources of fecal coliform bacteria in the Samish Basin, restoring water quality and ending the threat to recreationists and the commercial shellfish industry.

The graph below illustrates the improvements that can be made in a watershed when just one landowner

solves a pollution problem, and also illustrates what happens when a pollution source returns or a new source appears.



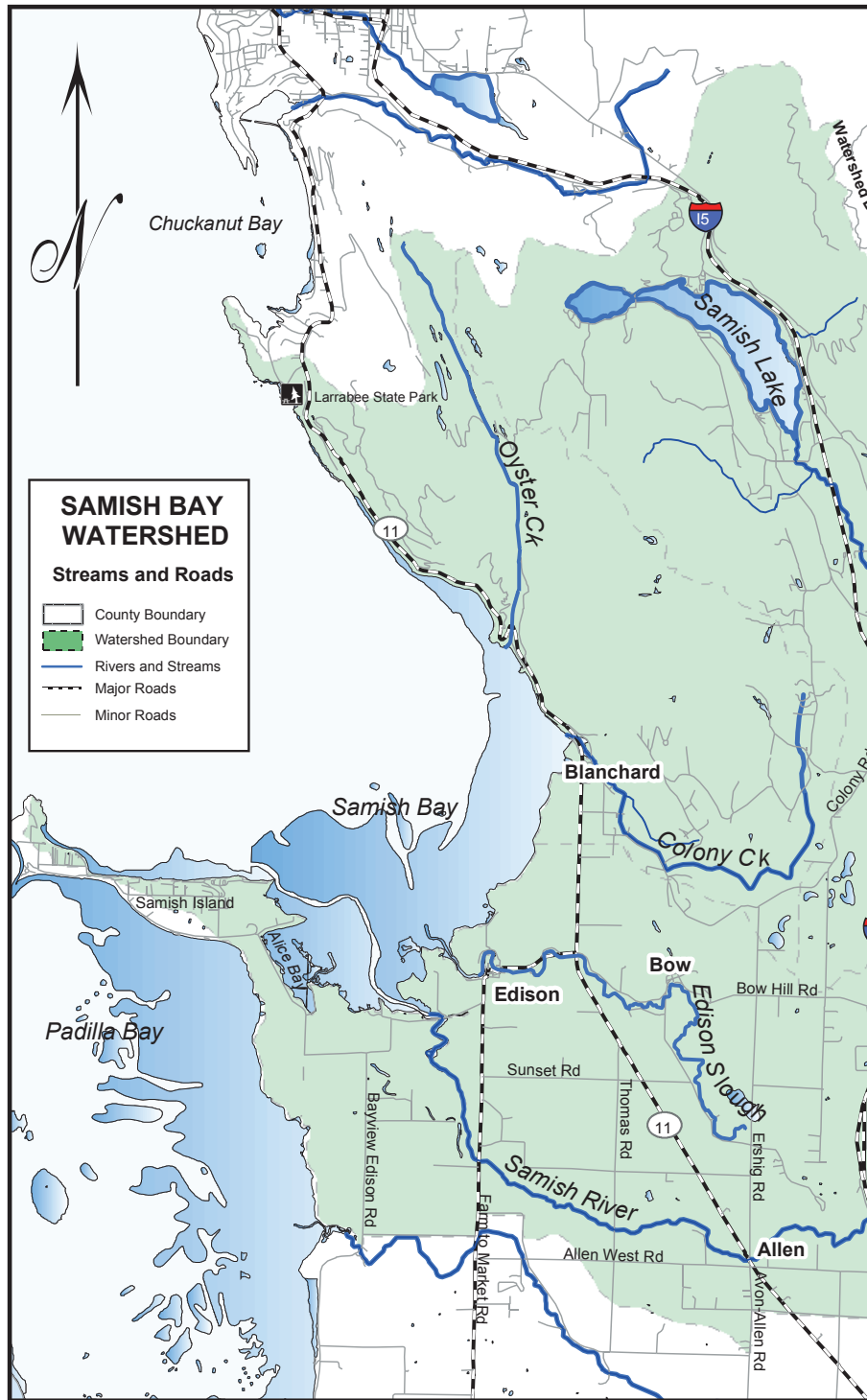
# DO YOU LIVE IN THE SA

*If you received this report, it is likely that you live in the Samish watershed. Even if you don't live directly on a stream, riverbank, or Samish Bay, water from your property drains to these waterbodies. Yes, you are in this watershed. What you do ... or don't do ... makes a difference for everybody.*



## Did you know?

99% of what happens in a stream is affected by what occurs outside of its bank ... in the watershed.



## FASCINATING FACTS ABOUT THE SAMISH

- The Samish watershed includes 140 square miles of land that drains to Samish Bay, and includes the rural communities of Alger, Wickersham, Prairie, Edison, Blanchard, Bow, Colony Mountain, Cain and Reed Lakes, Lake Samish, and part of Samish Island.
- Freshwater drainages in the basin include 340 miles of streams, including the Samish River, Edison Slough, Oyster Creek and Colony Creek and all their tributaries.

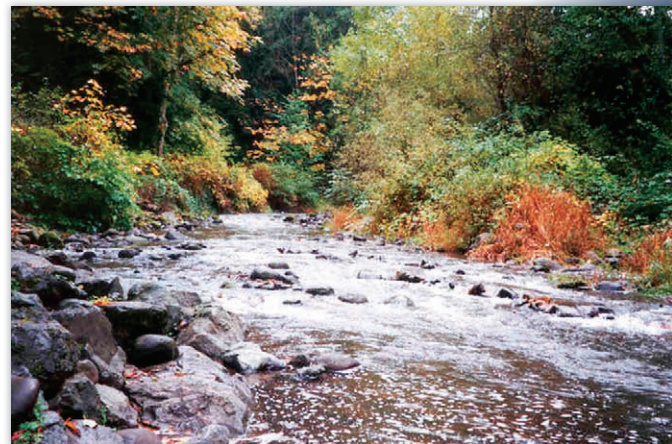
# MISH BAY WATERSHED?



## What is a watershed?

A "watershed" is another word for a river basin. It's defined as "a geographic region that drains water (and everything water carries) into a river, river system, or body of water." The boundary of a watershed is defined by the watershed divide, which is the ridge of highest elevation surrounding a given stream or network of streams. A drop of rainwater falling outside of this boundary will enter a different watershed and will flow to a different body of water.

The term "Watershed" originates from the German word, "Wasserscheide," which means "a parting of the waters"



## WATERSHED

- Samish Bay is over 11,000 acres in size and provides some of the finest marine resources and marine habitat in the Pacific Northwest.
- Primary land use in the watershed includes forestry, agriculture and rural residential.
- The watershed provides numerous recreational opportunities: fishing, hiking, boating, kayaking, bird watching, swimming, beachcombing, hang-gliding, crabbing and recreational shellfish harvesting, duck hunting, camping, horseback riding, picnicking, golfing, photography, and more!



## July 14 Save the Samish Meeting gathers community members and helpful input

The July 14 Save the Samish community meeting attracted a great amount of attention. Over 120 community members were at the Edison Elementary cafeteria to discuss the Samish watershed. Thank you!

The two and a half hour meeting provided information and discussions on the fecal coliform pollution problem in the Samish watershed, the actions being taken to address the problem, and the community support needed to get the problem under control.

All three County Commissioners, along with Washington State's Department of Ecology Northwest Regional Director, Jeannie Summerhays, were present.

Representatives from Skagit County Public Works, Planning, and Health, made presentations on the Samish watershed, the water quality monitoring program, the new Pollution Identification and Correction (PIC) funded by an EPA grant, Critical Areas Ordinance regulations, and the On Site Sewage Management Plan.

Personal stories describing successful farm plans, neighborhood efforts to correct septic system problems were told by people both in and outside of the Samish watershed. All the guest speakers encouraged the need for community action in order to protect the local economy, natural resources, and our quality of life.

While the meeting was considered a success with many community members to discuss the issues at hand, there were concerns that the meeting focused too much on background information. It may have lacked a sense of the urgent need for making changes and providing the tools and resources to make change possible.

The July 14 meeting allowed the community to gather and discuss a problem that needs serious attention. It is now our hope that the County and community will continue to work together, providing one another with the tools necessary to achieve a solution we all can live with.

### Your Property:



### **What You Can Do!**

Many Samish residents have already made changes on their property to protect water quality. For example, five Samish watershed landowners have installed solar powered water pumps, like the one pictured above to provide drinking water to livestock without allowing livestock access to surface waterways. Excluding livestock from waterways decreases the potential for streambank erosion and decreases the potential for manure to enter waterways. The Skagit Conservation District has solar pumps on hand and will assist landowners with installation.

### **Other ways you can help:**

- Be responsible for proper septic system maintenance or repair. If you have questions about your on-site septic system (exactly where it is located, how to maintain it), you can contact the Skagit County Health Department at 336-9380.
- Keep livestock waste out of waterways. If you have livestock, our Conservation District can help you manage your manure in ways that will both improve your pastures and protect water quality. Contact the Skagit Conservation District at 428-4313.
- Pick up after pets. It may seem hard to believe, but dog waste can be a significant source of water contamination. Scooping the poop, bagging it, and throwing it in the garbage is an easy and simple way to keep it from washing into our waterways and making its way to shellfish beds.
- Planting or preserving trees and native vegetation along streams, rivers, and the marine shoreline, will maintain or enhance the land's natural ability to filter out and break down fecal coliform pollution before it gets to the water.
- Attend workshops and neighborhood meetings that are being scheduled in your watershed.
- Talk to your friends and neighbors and stay tuned for more tips and ideas in future publications of this quarterly newsletter!

# Dairies for Clean Water in the Samish

Carolyn Kelly, Skagit Conservation District (SCD)

***Dairies are frequently mentioned when it comes to fecal coliform levels. After all, dairies have a lot of animals, and those cows create a lot of manure. So, what are dairies in the Samish doing to protect clean water?***

Samish dairy operators have been active in the Clean Samish Initiative. This spring, they worked with the Washington Dairy Federation to analyze manure application records and water quality data to make sure they wouldn't cause pollution. Several new best management practice (BMPs) have been installed, including a grassed waterway and an additional manure waste storage pond. According to Nels Lagerlund, Samish dairyman, "I've had a conservation plan for years, but I've implemented additional practices as well. It's not just about complying with the (Dairy Nutrient Management) Act; it's about keeping the Samish clean."

What is in a conservation plan? In 1998, the Dairy Nutrient Management Act was enacted, requiring any farm licensed to produce milk to have a fully implemented conservation plan. They are a set of BMPs, including physical structures and management practices that, when applied collectively, protect the soil, water, air, plants, and animals of the farm and surrounding area. Skagit Conservation District considers site specific factors for each farm; there is no "one size fits all." A conservation plan can also be a useful business management tool. For example, when nutrients (manure) are applied according to plant needs, dairy operators do not need to buy as much commercial fertilizer. It also increases the amount of food for their cows. If a dairy operator has substantial changes in their business operation, such as an increase in cow numbers, the plans are adjusted. This adaptive management considers the reality that no business stays the same – things change – even conservation needs.

The Washington State Department of Agriculture (WSDA) visits each dairy annually to determine if the facility is in compliance with their plan. This includes a manure waste storage pond inspection in the fall to make sure that the ponds are pumped out before winter arrives. Since the farmers are not allowed to pump the liquid wastes on frozen or saturated soils, Washington dairy farmers must also complete soil testing, to make sure that excess nutrients are not applied.

Large commercial farms and smaller parcels with just a few cows, horses, or other animals dominate the

landscape in the Samish watershed. They are a big part of what makes living here so gratifying! Agriculture also benefits the natural resources of the basin with its lack of impervious surfaces and abundant fish and wildlife habitat. Poor animal keeping practices can negatively impact water quality, and the quality of life we all enjoy. Dairy farmers are doing their part to keep the Samish clean.



***Nels Lagerlund, pictured above, now runs the family operated dairy farm he grew up on north of Burlington.***

## **Got Mud? Got Manure? Need Assistance?**

The Skagit Conservation District (SCD) provides FREE technical assistance to farms of all sizes, from small acreage landowners to larger dairy and beef operations. SCD can provide **farm plans**, **technical assistance**, and **cost share** funding for implementing Best Management Practices (BMP's) on your land. For details or to schedule a site visit, contact John Schuh, SCD at 428-4313 or email: [john@skagitcd.org](mailto:john@skagitcd.org).

***SCD is a non-regulatory, locally led organization that offers voluntary conservation programs and funding opportunities to landowners in the County.***



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## Samish Watershed UPCOMING EVENTS

**Wed., Nov. 17th, 6 pm – 8:30 pm:**

**Art of the Hedgerow:** Come and join us at this FREE workshop and learn how hedgerows of native plants can enhance the beauty, productivity, and biodiversity of your acreage and learn how to plant a hedgerow. Information on cost-share opportunities will also be provided. The event will be held at the Padilla Bay Research Reserve, 10441 Bay View Edison Road. Pre-register by Fri. Nov. 12th to Kristi Carpenter, Skagit Conservation District @ 428-4313 or email: [Kristi@skagitcd.org](mailto:Kristi@skagitcd.org)

**Tues., Nov. 30th, 6 pm – 8:30 pm:**

**Things You Can Do To Make a Difference in Your Watershed:** Want to get involved in cleaning up the Samish, but don't know how? Join us and learn how Samish residents can get involved and do their part to clean up, protect and preserve the watershed. Discussion topics will include ideas for managing water on your own property, joining a neighborhood stream group, volunteer and education opportunities, how you can provide input, and much more! The event is FREE and will be held at the Padilla Bay Research Reserve, 10441 Bay View Edison Road. Pre-register by Nov. 24th to Kristi Carpenter @ 428-4313 or email: [Kristi@skagitcd.org](mailto:Kristi@skagitcd.org)

**Thurs., Dec. 16th, 2 pm – 4:30 pm:**

**Samish Watershed Landowners Critical Areas Ordinance Workshop:** Join us at this upcoming workshop to learn about the County's Critical Areas Ordinance (CAO). Topics will include an overview of what are considered critical areas, how livestock management and other agricultural activities are regulated under the CAO, how a farm plan is developed and implemented, assistance programs, and more! The session will be held at the Board of County Commissioners Hearing Room, 1800 Continental Place in Mount Vernon. Please pre-register by Dec. 13th by contacting Betsy Stevenson, [betsyds@co.skagit.wa.us](mailto:betsyds@co.skagit.wa.us)

**Coming soon! Septics 101 and 201 classes –**

The Skagit County Health Department's Septics 101 & 201 classes are an ongoing opportunity to learn about your very own sewage disposal system ... *the one in your back yard!* These workshops are free. Dates and locations will be posted on the Skagit County web-site or call: 336-9380.



## Share a favorite Samish photo or tell



us what you are  
doing to protect  
water quality in  
the Samish!

Email to [Kristi@skagitcd.org](mailto:Kristi@skagitcd.org) or call Kristi @ 428-4313.

# Clean Water is Everyone's Business

*The Clean Samish Quarterly Report is being published  
by the Skagit Conservation District, Skagit Conservation  
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