

Clean Samish Initiative

Quarterly Report

Fall 2011



Photo by Elaine Lease, Mount Vernon

This issue features an annual update on the water quality health of the watershed ... are we making progress?

Over the last year, numerous Samish residents have become engaged in efforts to clean up their neighborhood stream by reducing sources of bacterial pollution from pets, farm animals, failing on-site sewage systems and stormwater runoff on their property. These efforts are beginning to show dividends throughout the basin. However, addressing water pollution is an enormous task that will take the involvement of everyone who lives, works, or plays in the Samish basin. We encourage you to take action and join with your neighbors to improve the health of this beautiful watershed – together we can make a difference!

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A Message from the Skagit County Commissioners

As your County Commissioners, we are dedicated to protecting and enhancing the quality of our local waters.

Clean water is essential to the wellbeing of Skagit County, ensuring healthy lives, viable fish and wildlife habitat, healthy shellfish beds, and safe recreation.

As high fecal coliform levels continue to threaten Samish Bay, we continue to move forward in our efforts to correct the problem. In recent months, we have enhanced our inspection process, installed waste facilities for both pets and humans within the Samish watershed, continued with a comprehensive outreach and education plan, and finished and received the results from our Microbial Source Tracking study. We will continue to dedicate funds and leadership in this locally-led effort until the problem is corrected.

Collectively, we need to work together to create a community that has access to reliable clean water. Skagit County has a dedicated history of environmental stewardship; we encourage every one of you to take part in the cleanup effort underway, and help return the Samish once again to a healthy, productive state.



Ron Wesen, Chairman
District #1



Ken Dahlstedt
District #2



Sharon Dillon
District #3

Entire Samish Watershed a Marine Recovery Area

Public Hearing date scheduled for Tuesday, December 13th, 2011 at 1:30 pm

Skagit County Public Health will be requesting the County Commissioners declare the entire Samish Watershed a Marine Recovery Area, or MRA. This designation is proposed to extend to the Willard Creek drainage as well. Most of the Samish Watershed is already a MRA or a "Sensitive Area" and has been the focus of the Health Department's outreach to residents to ensure their on-site sewage systems are inspected. Property owners in this new Upper NE Samish MRA will receive notices from the Health Department to have inspections of their septic systems completed by an Operations and Maintenance Specialist. Those who do not have their systems inspected may be subject to a fine.

Conventional gravity systems are required to be inspected every three years. Other types of systems require yearly inspections. Oftentimes, a small problem can be corrected at the time of the inspection. Many times, this small correction can help assure that your drain field lasts as long as possible.

The hearing date is scheduled for December 13, 2011 at 1:30 p.m. in the County Commissioners' Hearing Room (1800 Continental Place, Mount Vernon). Written comments may be submitted to Corinne Story, Skagit County Public Health, 700 South 2nd, Room 301, Mount Vernon, Washington, prior to December 9, 2011. Public comments will also be accepted at the public hearing. Email correspondence will not be accepted.



Additional information and documents related to this proposed classification are available at www.skagit.net/health.

For more information, contact Environmental Public Health Manager Corinne Story at corinnes@co.skagit.wa.us or at (360) 336-9380, ext. 5459.

Link to list of certified inspectors -- <http://skagitcounty.net/HealthEnvironmental/Documents/MaintenanceSpecialistList.pdf>



ABOVE: Over 80 community residents participated in a Septics 201 class hosted by Skagit County Public Health on Oct. 25th. Participants are trained to inspect their own conventional gravity septic system as well as how to complete a septic inspection form. Participants must take Septics 101 prior to enrolling in the Septics 201 class.

Clean Samish Initiative Focuses on Goals

By: Dan Berentson, Natural Resources Division Manager, Skagit County Public Works

On April 29, 2011, the Puget Sound Partnership convened a meeting with members of the Clean Samish Initiative Executive Committee, directors of state agencies, local elected officials, tribal representatives, landowners and other interested parties to establish a clear path to recovery. The following ten-point action agenda was established and progress is being made:

- 1. Designate the Samish Basin as a Marine Recovery Area.** Skagit County is in the process of revising local codes to designate the full Samish Basin as a Marine Recovery Area to address on-site sewage systems consistent with state law.
- 2. Improve Communication with Landowners.** A significant effort is underway including the Skagit Conservation District implementing a "peer-to-peer" landowner outreach program with Samish residents, Skagit County, Western Washington Agricultural Association, and Skagitonians to Preserve Farmland and continued one-on-one support to watershed residents and volunteers. Also, the departments of Ecology and Agriculture, the Conservation Commission, Skagit Conservation District and Skagit County have developed improved inspection communication protocols.
- 3. Increase Compliance with Clean Water Law.** This joint effort will focus on priority parcels and areas with Skagit County assuring timely and effective use of expenditures of EPA grant funds to expedite the property inspection efforts. The Department of Agriculture is continuing inspection focus relating to dairies and has deployed four inspectors to conduct visits of small-acreage and animal operations. Department of Ecology has doubled its inspection capacity.
- 4. Deploy Puget Sound Corps.** Ecology has provided access to the Corps and more than 2,000 feet of shoreline has been fenced and planted.
- 5. Revise Water Quality MOA to be more Timely and Effective.** The Department of Ecology, the Conservation Commission and the Skagit Conservation District are making progress in revising the Agriculture and Water Quality Memorandum of Agreement that pertains to Skagit County.
- 6. Targeting Resources to Priority Parcels and Areas.** Skagit County has completed evaluation of 100 percent of properties in the reaches of the Samish showing the highest level of fecal contamination. Coordinated site visits with Ecology and Agriculture are underway. Skagit Conservation District is working with landowners who require farm plans with 100 percent completed by June 2012.
- 7. Provide sani-cans for recreationalists in the Samish Basin.** This action item has been completed and will continue to be enhanced. 17 pet waste stations and 12 portable toilets have been installed.
- 8. Update the CSI Work Plan.** The plan has been updated and incorporated into the targeted action agenda.
- 9. Assessing Outcomes and Reporting Progress.** Skagit County is the lead for tracking all actions, responsibilities and outcomes. Puget Sound Partnership will issue quarterly progress reports to local legislators, the Governor, and local media.
- 10. Utilization of Microbial Source Tracking.** Skagit County and the Clean Samish Initiative Executive Committee hosted an informational meeting in September presenting Microbial Source Tracking results from studies conducted by Oregon State University and EPA.



CELEBRATING THE SAMISH!

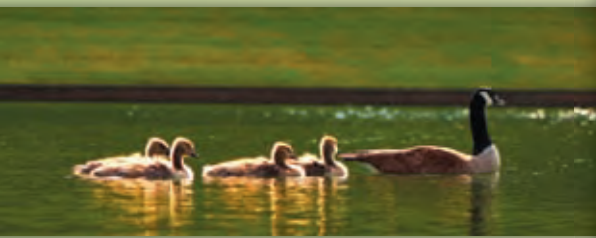
Over 150 Samish neighbors joined in the festivities at Donovan Park on Saturday, Oct. 8th to celebrate the natural and cultural resources of the Samish River and to help kick off the new Friday Creek Habitat Stewards Program. Highlights of the festival included music, hands on arts and crafts, watershed related demonstrations, educational passport fun, presentations, a special visit from Fin the Migrating Salmon, food and sunshine!



Opening ceremony sing-a-long with the Stream Team Salmon Sisters

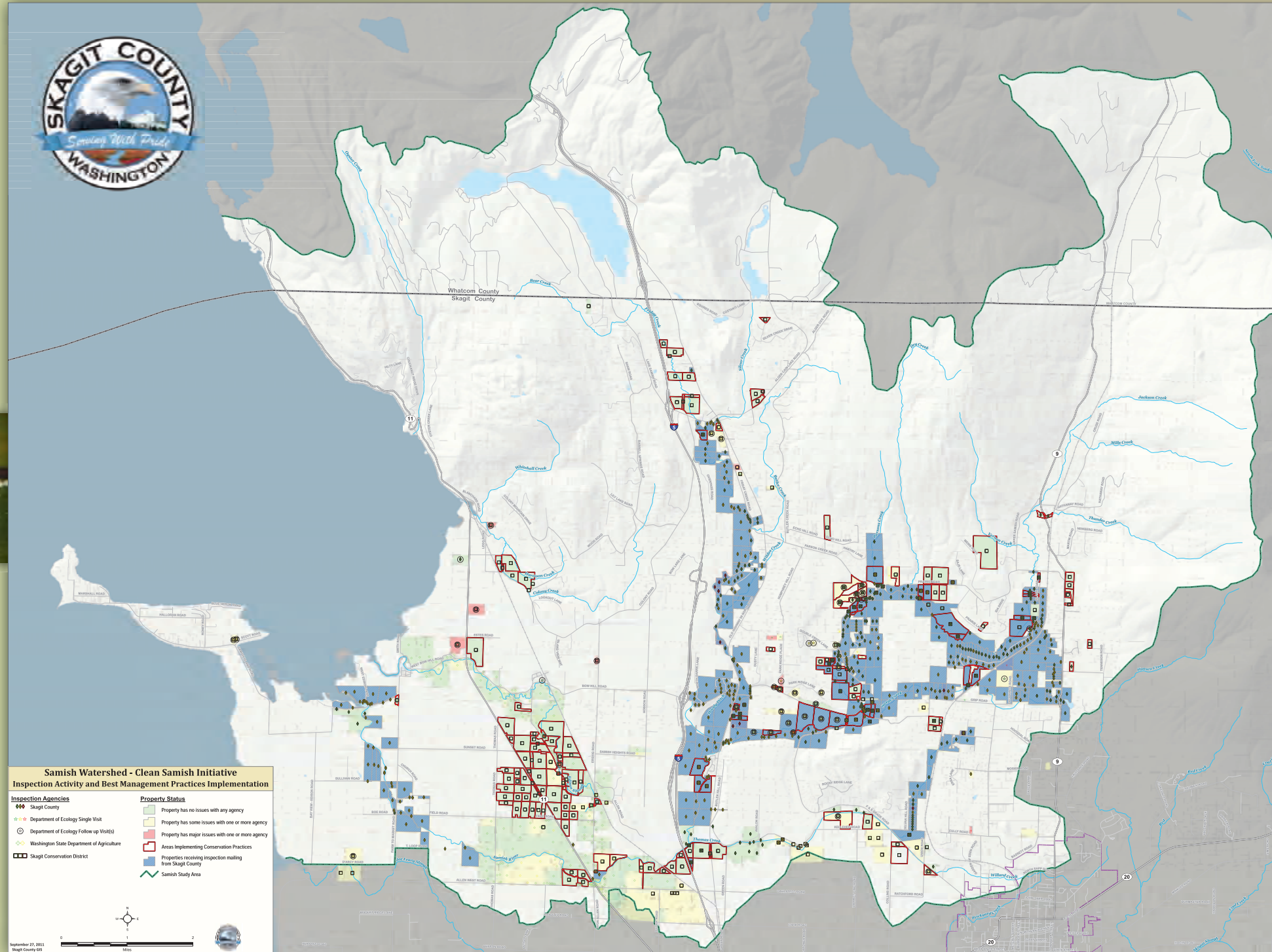
Inspection Activity and Best Management Practices Implementation Map Now Available

As the lead for the **Clean Samish Initiative**, Skagit County is charged with assessing outcomes and reporting progress for the wide-scale effort to clean up Samish Bay. One means of reporting progress involves tracking all inspections and land-use practice evaluations within the watershed. A map showing the current status of inspection activity and implementation of Best Management Practices is now available on the County's website: www.skagitcounty.net/cleanwater. The map will continue to be updated on a quarterly basis.



About the map

The information represented in this map is based on best available information through September 2011 and depicts an ever changing situation in the basin. The inspection map is meant to provide a snapshot of the current status and to serve as a means of assessing Clean Samish Initiative progress. In addition to the inspection activity map, septic status maps are also available on Skagit County's Clean Water page.



What is the process for property inspections?

Working in partnership, the Washington State Departments of Ecology and Agriculture, the Skagit County Health Department, and Planning and Development Services, conduct inspections in the Samish watershed. If they find Critical Areas Ordinance (CAO) violations, pollution, or manure management issues, they take appropriate action, which may include recommending that the property owner contact the Skagit Conservation District or other appropriate resource agency for technical assistance.

If the violation is not corrected in a reasonable timeframe, enforcement action will be taken by the agency with jurisdiction over the violation. All agencies with enforcement authority try to work with property owners to correct violations on a voluntary basis prior to issuing final enforcement actions.



- Everything colored on the map is in the high-priority area.
- Parcels **outlined in red** are working with the Skagit Conservation District and implementing conservation practices.
- **Green:** indicates a property that does not represent a threat to water quality at this time. Examples of

'green' parcels include a property with livestock that is implementing BMPs, or an undeveloped, forested property.

- **Yellow:** indicates a property that may represent a threat to water quality. Examples of 'yellow' parcels include a property that has not yet implemented all aspects of a farm plan (due to seasonal restrictions for example), or

an area with potential critical areas issues that needs to be revisited in the wet season.

- **Red:** indicates a property that is of immediate concern for water quality. Examples of 'red' parcels include properties that have not voluntarily made any recommended land use changes to mitigate pollution.

For questions about the map, please contact Mary Sutton Carruthers with Skagit County Public Works at marysc@co.skagit.wa.us

Samish Basin 2011 ...

Water Quality Monitoring Report

By: Rick Haley, Skagit County Public Works

Ambient and Storm Event Monitoring

Skagit County continues with regular (“ambient”) and storm event monitoring in the Samish Basin. For the 2011 water year (10/10 – 9/11), some or all of the Samish Basin was sampled 96 times. While some of these sampling trips involved only one or two samples to characterize the Samish River discharge to the bay, many sampling trips involved taking samples all over the basin, in the main stem river and tributaries, to characterize the current conditions in the basin.

While Skagit County monitors many water quality parameters during ambient runs, the parameter of highest concern in the Samish Basin is fecal coliform bacteria. Fecal coliform is an indicator of the presence of bacteria and viruses from the digestive systems of warm-blooded animals. Poop, in other words. High fecal coliform counts in the rivers and streams mean they are unsafe for recreation and lead to closures of the shellfish beds in Samish Bay.



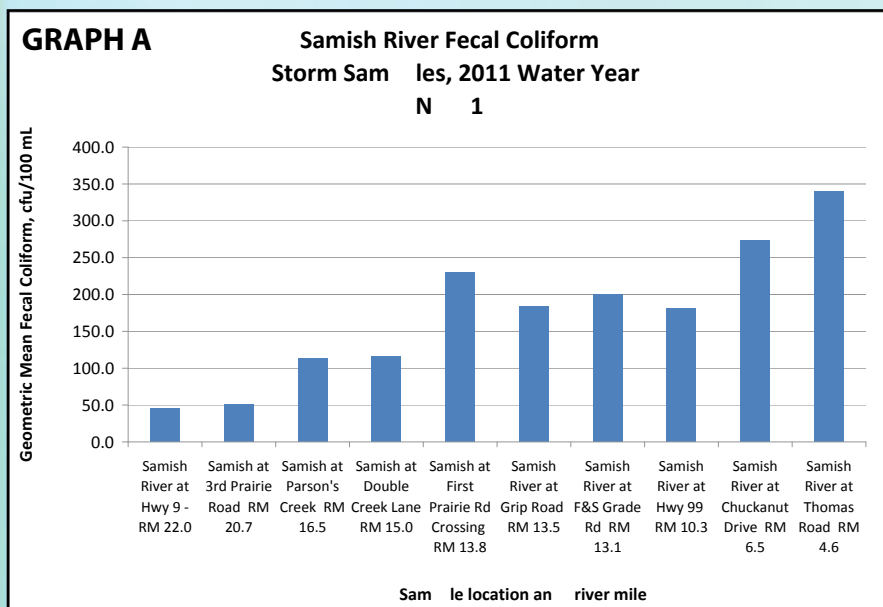
Skagit County’s fecal coliform sampling program is designed to characterize the conditions in the river and tributaries, and to help locate the sources of pollution. Graph A illustrates one method used to detect pollution sources: The sampling data (in this case for 2011) is arranged from upstream to downstream, and the reaches where pollution increases seem to occur are represented by big increases in fecal coliform between stations. As the graph shows, there are several places where those

increases occur. This information is then used to target those stretches for property visits and pollution reduction programs.

Are we making progress?

Graph B is intended as a status check on progress in reducing fecal coliform numbers in the Samish River. The graph compares storm sample results from 2010 water year (Oct. 2009 – Sept. 2010) with the results from 2011 water year. While there was not exactly the same number of samples collected at each site for each year, the sample numbers are close enough to make this a reasonable comparison.

Note the significant decline at each station except for the upper two, which are meeting water quality standards already. It is easy to lose track of overall progress as individual sample results come in, so now that we have two entire water years of data collected, it’s time to step back and assess if there has been any progress. I would argue that this data indicates that we are making progress, especially in the middle Samish reach that was our initial focus area.



Microbial Source Tracking Study

Another tool Skagit County has recently employed to determine pollution sources is Microbial Source Tracking (MST), also known as DNA testing. This technology attempts to identify the host animal for bacteria found in water samples. Although this technique is experimental, Skagit County was able to work with the EPA, Ecology, and Oregon State University (OSU) to conduct MST sampling.

In the EPA/Ecology study with the EPA lab in Manchester, WA, samples were tested for presence or absence of human and ruminant (including both cattle and deer) markers. In this study, 169 samples were taken over a year from 16 locations. The results showed that 14% of the samples had human markers, 14% had ruminant markers, and 7% had both human and ruminant markers. The remaining 65% of the samples had either no markers (6.5%) or unidentified markers (59%). The unidentified markers could have come from any warm-blooded animals, including birds, other wildlife, or could represent human and ruminant markers not included in the study.

In the OSU study, which included 69 samples taken in the spring of 2011, more markers were used and semi-quantitative results obtained. For the OSU study, 58% of the samples tested positive for ruminant markers, 54% tested positive for avian markers, and 17% were positive for human markers. One sample tested positive for dog, while no gull or horse markers were detected.

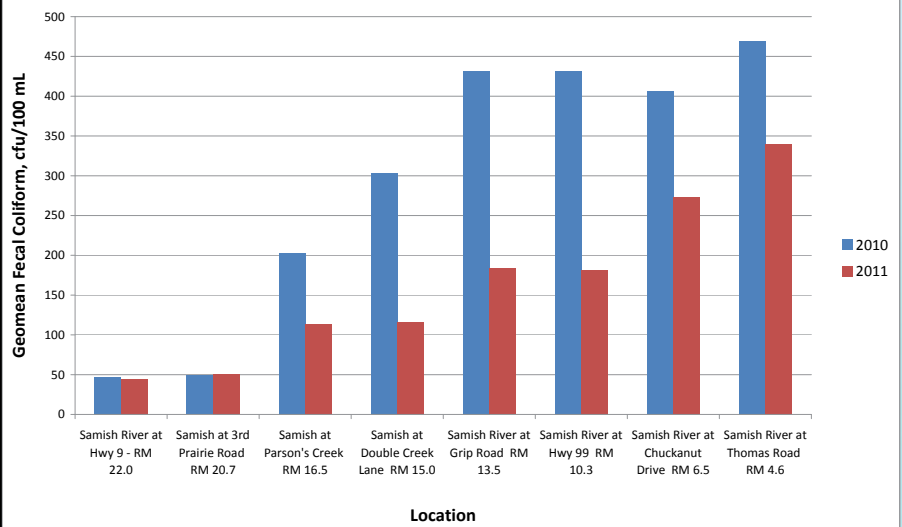
The ruminant and avian markers were usually more numerous than the human markers.

These two studies produced somewhat different results, and Skagit County continues to work with both the OSU and EPA labs to further refine the science. The County intends to conduct more sampling this fall with the OSU lab. Results from the two studies can be found on the Skagit County Clean Water web site at: www.skagitcounty.net/cleanwater

Skagit County will continue to conduct water quality monitoring to locate pollution sources and to track improvements in the watershed as the Clean Samish Initiative proceeds. For questions about the County water quality program, contact Rick Haley at 360-336-9400 or rickh@co.skagit.wa.us.

GRAPH B

**Samish River Fecal Coliform
Storm Event Geomeans, 2010-2011**



Samish Watershed Upcoming Events:

Thursday, December 8, 6pm - 7pm

Septics 101: Padilla Bay Research Reserve

To register, contact Skagit County Public Health at 336-9380 or email: health@co.skagit.wa.us

Tuesday, December 13, 1:30 pm

Samish Marine Recovery Area Public Hearing: County Commissioners Hearing Room, 1800 Continental Place, Mount Vernon (see article on page 2)

Monday, February 27, 6pm - 9 pm

PRESENTATION: Mud & Manure Management on Horse & Livestock Properties. Join Alayne Bickle, of the award-winning program Horses for Clean Water, to learn new and exciting ways to get rid of mud, deal with drainage and manage manure. Learn how to compost horse manure, see

different bin designs, find out about off-site options for dealing with stall waste and view the latest techniques for reducing stall waste in the barn. Find out about fun, chore-efficient ways to set up your horse property so it's healthier for horses, easier to care for and more productive next summer. Registration: 360-428-4313 or Kristi@skagitcd.org.

Friday, March 23, 9am - 5 pm, and

Saturday, March 24, 9am - 1 pm

Skagit Conservation District (SCD) Annual Native Plant Sale

This annual sale offers affordable native plants available for wildlife enhancement and environmentally friendly landscaping. Plants are conservation grade bare-root seedlings typically sold in bundles of ten or twenty-five. Contact SCD at 428-4313 for plant list/prices or visit website: www.skagitcd.org. Pre-order deadline is Fri. March 2nd.



The Septic System Rebate Program Has Returned!

Skagit County Public Health was recently awarded a \$150,000 grant from the State Department of Health to re-start this program. In exchange for attending a Septics 101 class and having your on-site sewage system inspected, you may be eligible for a **\$100 rebate**.

But wait, there's more!

If you have septic tank risers and lids installed, you could be eligible for another \$100 rebate. *(Sorry, you are not eligible to receive a rebate now if you received a rebate in 2004-2007).*

Contact the Health Department at 336-9380 for more information.

Low-Interest Loans for On-site sewage System Repair

We also have low-interest loan money available for repairs of failing septic systems. All that is required is a failing system and a good credit record. Contact Clyde Williams at the Skagit County Treasurer's Office at 360-336-9350 for more information or an application packet.



Installing septic risers & lids to your existing septic tank allows access for ease of routine maintenance. Attend a Septics 101 class and you may qualify for a \$100 rebate towards installation!

Samish Watershed Websites/Outreach Info:

- Skagit County Clean Water Page:** www.skagitcounty.net/cleanwater
 The Clean Water page contains all information about clean water efforts in and around Skagit County, upcoming events, all programs incorporated in Skagit County's Clean Water Program, links to all publications, news releases, and videos associated with clean water efforts, shellfish safety status updates, and much more.
- Clean Samish Initiative Page:** www.skagitcounty.net/csi
 A page dedicated to the Clean Samish Initiative, its history, and recent efforts. This page also has links to how you can help, available resources for property owners, all participating partners, and a helpful view of all the designated portable pet and human waste facilities in the Samish Basin.
- CSI Facebook Page:** www.facebook.com/cleansamish
 Check the CSI Facebook page for the most recent information regarding water quality monitoring data, upcoming events, and new website postings. "Like" the page and encourage others to as well!

Clean Water is Everyone's Business

The Clean Samish Quarterly Report is being published by the Skagit Conservation District, Skagit Conservation Education Alliance (SCEA), Skagit County, and the US Environmental Protection Agency (EPA).

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