

# Clean Samish Initiative

Water Quarterly Report

Winter/Spring 2013



Bellingham Senior Trailblazers enjoying overlook of the Samish Flats while hiking Blanchard Mountain

Photo Credit: DJan Stewart

***This issue features*** an annual update on the water quality health of the Samish Bay watershed. Due to strong community participation and stewardship activities, we are continuing to make progress! Fecal coliform pollution loading has been significantly reduced over the last few years; however, we still get spikes that continue to close Samish Bay shellfish beds during heavy rains. That means we still have work to do! Restoring the health and water quality of the Samish basin will take the support and involvement of everyone – every action, no matter how small, will make a difference. Together we can have healthy streams, a healthy river, and healthy shellfish resources in Samish Bay.

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# Samish Basin Water Quality Monitoring Update

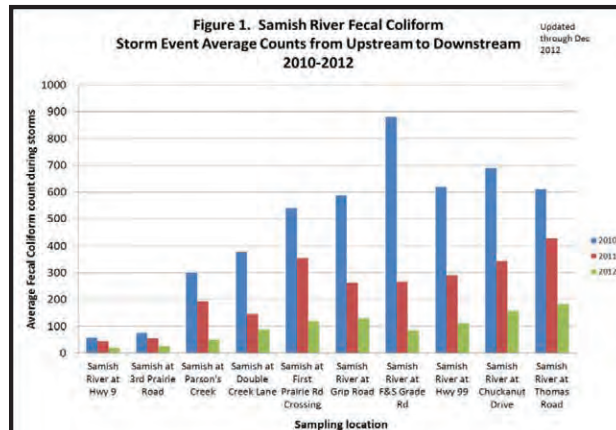
*Skagit County, the Samish Indian Nation, and Skagit Conservation District volunteers from the Skagit Stream Team and Storm Team Program continue to intensively monitor water quality in the Samish Basin.*

**Samish Bay Closures:** The current classification of Samish Bay requires a precautionary closure of shellfish harvesting when flow in the Samish River rises above certain criteria and raises the potential for polluted runoff to enter the bay. The closure is considered “confirmed” if subsequent laboratory analysis of river water show that fecal coliform concentrations are above safe levels. The bay remains closed until laboratory analysis indicates that pollution has dropped to safe levels. Between October 1, 2012 and March 1, 2013, there have been 18 closures of the Samish Bay shellfish beds based on river rise, of which 5 have been confirmed by water quality samples showing bacterial loading exceeding the closure criteria. In the remaining 13 cases, the river rose enough to trigger the closure, but the water quality samples taken during the event showed that the bacterial levels in the river were below the closure



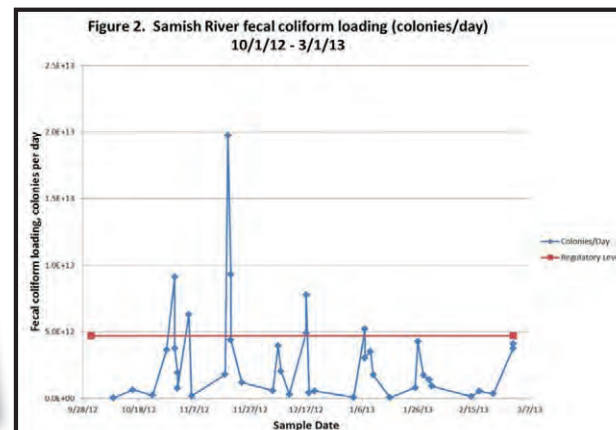
criteria. This is a much reduced rate of confirmation of river rise closures than a year ago.

**Water Quality:** The average fecal coliform count during storms continues to decline over time at all Samish River stations (see Figure 1). However, because river flows have been higher than normal for much of the recent period, bacterial loading delivered to the bay (calculated by multiplying river flow times fecal coliform counts) continues to exceed the closure criteria for the bay on occasion (see Figure 2).



**The average fecal coliform count during storms has continued to decline over the last three years at all Samish River monitoring stations. However, levels are still high enough to exceed state water quality standards in the river and Samish Bay shellfish bed closures are still occurring, although not as frequently as in years past.**

coliform counts and loading have peaked in past years. This spring will provide another check on progress in the Clean Samish Initiative. County staff and volunteers continue to monitor on a regular basis and during all available storms.



**Bacterial loading delivered to the bay (calculated by multiplying river flow times fecal coliform counts) continues to exceed the closure criteria for commercial shellfish harvest in Samish Bay on occasion, although the loading trend since 2008 is down.**

**Critical Spring Rainy Season:** We are now in the critical spring season, when fecal coliform counts and loading have peaked in past years. This spring will provide another check on progress in the Clean Samish Initiative. County staff and volunteers continue to monitor on a regular basis and during all available storms.

**What's New:** Since the last quarterly newsletter, County staff have increased the number of sampling locations in three focus sub-basins: Swede Creek, Skarrup Creek, and Bob Smith Creek. These tributaries to the Samish River have often shown substandard water

quality, and the County is focusing some of the Pollution Identification and Correction effort in those drainages, while maintaining activities in the rest of the Samish Bay watershed. In addition, the Samish Tribe continues its intensive monitoring of the Thomas Creek sub-basin.

The increased monitoring in the focus sub-basins has helped target County resources in the areas where fecal coliform pollution appears to be occurring. In Bob Smith Creek, both the West and East (Moody Ditch) Forks show an inconsistent pattern of occasional high counts, while the downstream station near the mouth is usually higher than state water quality standards. County personnel has already inspected some of the larger parcels in the area and plan to increase scrutiny on septic systems there.

On Skarrup Creek (also sometimes spelled Skaarup Creek), fecal coliform counts from the upper stations are usually well below state standards, so the County is cooperating with Ecology on a few parcels in the lower reaches of Skarrup Creek.

Swede Creek also shows an inconsistent pattern of fecal coliform counts in the upper reaches. County and Ecology personnel have conducted numerous inspections in the area and have identified some properties that appear to need improved practices.

Samish Indian Nation data for Thomas Creek points to one particular tributary as particularly troublesome, and County inspectors are targeting that area as well.

**We are Making Progress:** Overall, apparent trends in fecal coliform counts and bacterial loading delivered to the bay (calculated by multiplying river flow times fecal coliform counts) continues to exceed the closure criteria for commercial shellfish harvest in Samish Bay on occasion, although less frequently than in previous years. Clean Samish Initiative partners are encouraged by the progress and will continue to find and remediate pollution sources.



**ABOVE: Skagit Storm Team volunteers began a storm event study of the Edison pump station drainages this year. The program will establish baseline data and help identify hot spots in the drainage.**

**The increased monitoring in the focus sub-basins has helped target County resources in the areas where fecal coliform pollution appears to be occurring.**



# Community Stewardship in Action



## For the love of 6 horses, 2 alpacas, 2 goats, and 1 donkey...

*Conservation practices for Samish couple provide a healthy home for rescue animals*

Larry Jensen and Mary Tveit are dedicated to providing a caring home and shelter facility for rescue animals. In fact, all their animals, currently including 6 horses, 2 alpacas, 2 goats and a donkey, are rescue animals. They treat each of them like pets, all have names, and the couple is well acquainted with each unique personality. The animals have brought the rescue couple a great amount of satisfaction; however, raising livestock in our rainy climate also has had its challenges.

To help protect the health of their neighborhood stream and to keep their animals mud-free and healthy, Jensen and Tveit recently embarked on a land management strategy to reduce the amount of mud and manure on their property and to properly store the collected horse waste. After developing a farm plan with the Skagit Conservation District, the couple installed a heavy use area to confine their animals when pastures are wet and also installed a waste storage structure to store their animal waste. To reduce the amount of manure stored on site, they put an ad in the paper for free horse manure (most of it is shavings that have been cleaned out from the horse stalls in the barn) and have had a steady stream of gardeners coming to get it. They are also planning to install a permanent fence (there is a temporary one in place now) to exclude their animals from a pond and wetland that eventually drain to Weir Creek (and then to the Samish River) and an outlet line to transfer the roof water from the barns away from the confinement area will be installed soon.

Larry says it has all been a lot of work, but he has already seen improvements. He said that the horses really like the sand in the heavy use area instead of the mud that use to be there. "They lie down and roll around in it and seem happier, which is really important to Mary and I." The land management practices they have installed will reduce the potential of mud and manure runoff from their property and provide a healthy, safe, environment to raise their animals.



Left:  
Jensen/Tveit  
Heavy Use  
Area Before



Jensen/Tveit Heavy Use Area After

*A "Heavy Use Area" is a paddock with good footing used to confine livestock at any time pastures need a break from grazing. Livestock should be removed from pastures in wet saturated conditions and whenever grass is three inches or less in length.*



Right:  
Jensen/  
Tveit Waste  
Storage  
Before



Jensen/ Tveit New Waste Storage Structure After

## Friday Creek Habitat Stewards Receive Grassroots Stewardship Grant

Hats off and congratulations to the Friday Creek Habitat Stewards, a neighborhood community volunteer group, who were recently awarded a \$7,500 grant from the Rose Foundation's Puget Sound Grassroots Stewardship Fund to establish a multi-faceted stream and wildlife habitat enhancement demonstration site on Silver Creek at the Alger Community Hall. The project, inspired by the volunteer group with support from the Alger Improvement Club, Skagit Conservation District, and other partners, will include incorporating specialty demonstration gardens to showcase pairings of native plants and naturoscaping techniques that homeowners can apply to invite wildlife, save water, lower maintenance,



Friday Creek Habitat Steward volunteers, Sue Mitchell, Sylvia Weber, Melissa Thompson, and Ani Gurnee of Aulos Design, begin planning the new wildlife habitat enhancement demonstration garden at the Alger Community Hall.

reduce pesticide use and support local ecology; incorporating a native plant corridor/windbreak; establishing pathways and educational observation areas; and installing permanent educational signage at key observation areas so residents can see firsthand how they can landscape with Pacific Northwest plants, provide for the basic needs of wildlife (birds, butterflies, hummingbirds), and protect their neighborhood stream. This project will build on the success of the stream enhancement project conducted at the site last spring with support from Skagit County's NRSP program, Skagit Fisheries Enhancement Group, Alger Community Hall, Skagit Conservation District and the Friday Creek Habitat Stewards. The goal of the project is to inspire local stewardship and to increase public awareness of landscaping and conservation practices that enhance critical fish and wildlife habitat, reduce water quality pollution, protect downstream shellfish resources, and create a more sustainable, healthy environment for people too. The Skagit Conservation District will serve as fiscal agent and provide technical support for the project. The project will be initiated early this summer. For more information or if you would like to volunteer at upcoming work parties, contact Sue Mitchell, Co-Chair of the Friday Creek Habitat Stewards, at (360) 724-0397 or Kristi Carpenter, Skagit Conservation District at (360) 428-4313.

***"Never doubt that a small group of thoughtful, committed citizens can change the world. Indeed, it is the only thing that ever has."***

— Margaret Mead

## Restoring the Samish River

With funding from the Washington Department of Ecology (DOE), the Skagit Fisheries Enhancement Group (SFE) is partnering with the Samish Indian Nation to battle invasive knotweed infestations along the Samish River. The tribe is surveying and treating knotweed and conducting water quality monitoring. SFE is working with landowners to revegetate impacted riparian areas once knotweed has been treated. On Saturday March 2nd SFE hosted a volunteer event to begin replanting on 2.8 acres of land adjacent to the Samish River as part of this program. Approximately 19 volunteers attended from the community. Volunteer efforts resulted in over 500 trees and shrubs planted on the site. Volunteer opportunities for replanting on the Samish will continue as part of this program. If you would like to help out at future planting events contact Lucy DeGrace, SFE, at (360) 360-336-0172 or email: [ldegrace@skagitfisheries.org](mailto:ldegrace@skagitfisheries.org).



SFE volunteers helped plant and restore over 500 native trees and shrubs on the Samish River.

# On-site Sewage Program Update

## Rebates ending September 30, 2013

The grant funding for our \$100 inspection rebate ends on September 30, 2013. Get your paperwork submitted in time to make certain you receive your rebate. To be eligible, you need to take a Septics 101 class (either in-person or on-line), have your septic system inspected by a Skagit County certified operations and maintenance specialist and submit a completed application to Skagit County Public Health.

## Septics 101 and Septics 201 Classes

Septics 101 training and testing is available on-line at [www.skagitcounty.net/septic101online](http://www.skagitcounty.net/septic101online). Once you have successfully completed the test (or attended a Septics 101 class), you are eligible to attend Septics 201 field training. Septics 201 classes are limited to 30 participants to ensure everyone gets an opportunity to observe a septic system working. Keep an eye at [www.skagitcounty.net/septic](http://www.skagitcounty.net/septic) for updated class schedules or call 360-336-9474 to be placed on a waiting list.

## Homeowner Inspection of Septic System

This option is available for Skagit County septic system owners, with these few requirements:

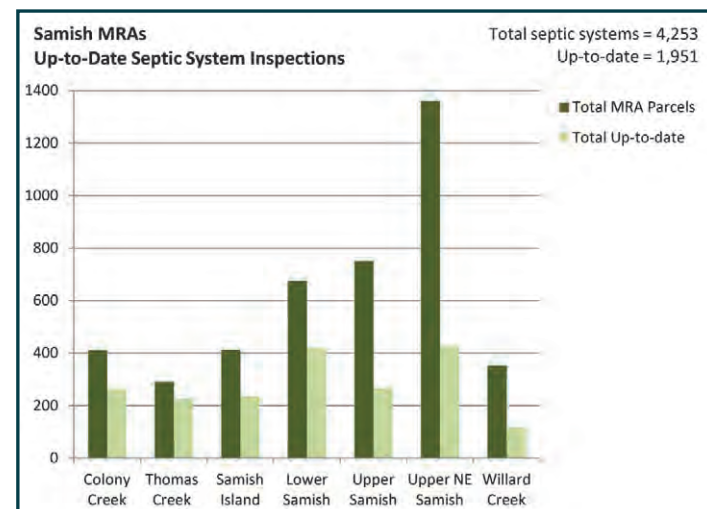
1. The on-site sewage system is a conventional gravity, a pump to gravity, or conventional pressure system.
2. The on-site sewage system was installed with an approved, issued and completed permit.
3. The property is not immediately adjacent to a marine shoreline.
4. The inspection is not for the purpose of a real estate transfer.
5. The property owner attends a Septics 101 Class.
6. The property owner attends a Septics 201 Field Class.

Call Skagit County Environmental Public Health at 360-336-9474 for more details.

## My County – it wrote me a letter

Skagit County Public Health has been sending hundreds of letters to septic system owners who need to have their systems updated. Conventional gravity septic systems are required to be inspected once every three years. All other types of septic systems must be inspected every year. All inspections are reported to Environmental Public Health and we do our best to remove those who have completed their inspection from our mailing list. If you haven't received a letter, congratulations and thanks! That means you have kept your septic system inspection up-to-date.

This chart shows the status of septic system inspections in all of the Samish Marine Recovery Areas as of December 12, 2012. Of these, there were 19 failures (1%) and 77 required a correction at the time of the inspection (4%).



We have been sending many letters to those in the Upper NE Samish and Willard Creek sub-basins. As of this writing, we have heard from all but about 250 property owners in those two sub-basins.

Questions? Contact Environmental Public Health at 360-336-9474 or EH@co.skagit.wa.us.



Septic tank inspection in progress



Septic tank baffle screen inspection in progress

# Protect Your Land for Future Generations

Conservation Technical Assistance and Financial Incentive Programs Available

Protecting and managing your natural resources is an essential part of managing your biggest financial investment – your land. By envisioning what you want your land to be and setting goals for the future, you begin a land management planning process that can protect the quality of the soil, water, and forested resources of your property. These land management activities can also enhance wildlife habitat, increase recreational opportunities, improve the aesthetic value of your land, and assure you are meeting regulatory requirements.

*Not only does proper land management protect our natural resources, but it can also improve the aesthetic value of your land and reduce the work associated with raising animals.*

The Skagit Conservation District, a locally-led non-regulatory organization, provides free technical assistance to local landowners interested in improving their property and developing a conservation plan. Some of the things considered in a conservation plan are farm size, soil type, slope of the land, proximity to streams or bodies of water, and types of livestock, or crops. In addition, the landowner's goals and resources and available finances are given top priority. With your goals in mind, the technician may make suggestions for addressing any potential water quality concerns that may be evident at the site and for improving farm productivity. Possible examples include

streamside fencing, gutters and downspouts, manure management techniques, pasture renovation, weed management, creating sacrifice areas, cross fencing, and pasture rotation of livestock.

There are many financial opportunities that are also currently available to eligible Samish landowners to support implementation of conservation practices that improve and protect water quality. Up to 75% and in some cases 100% of project costs may be reimbursed after a qualifying conservation practice has been completed. For information, contact the Skagit

Conservation District at (360) 428-4313 or email John Schuh at [john@skagitcd.org](mailto:john@skagitcd.org) or Joe Holtcamp at [joe@skagitcd.org](mailto:joe@skagitcd.org).

### Websites:

Skagit Conservation District (SCD)  
[www.skagitcd.org](http://www.skagitcd.org) or call (360) 428-4313  
Natural Resource Conservation Service (NRCS)  
[www.nrcs.usda.gov](http://www.nrcs.usda.gov) or call: (360) 428-7684  
Skagit County Natural Resource Stewardship Program (NRSP)  
[www.skagitcounty.net/NRSP](http://www.skagitcounty.net/NRSP)

## Art for Learning Watershed Science

June 19-29 at Padilla Bay



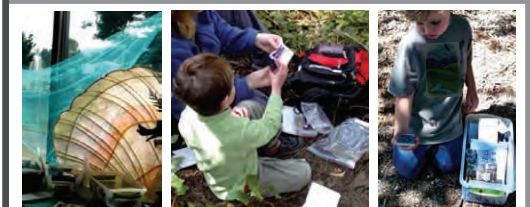
**SCEA**  
SKAGIT CONSERVATION  
EDUCATION ALLIANCE™

**2013**

Info@skagitcleanwater.org  
(360) 428-1054

## Skagit Watershed Letterbox Trail

Kickoff, Clues revealed, June 30  
Summer Trail July 3-October 6  
Trail's End Celebration: TBD  
Stay Tuned!



Skagit Conservation Education Alliance is a community based, non-profit organization. Its mission is to bring people together in the spirit of cooperation to help protect, conserve and enhance the natural ecosystems of the Skagit Watersheds.

Look for SCEA in 2013 - Anacortes Waterfront Festival, Art for Learning Watershed Science at Padilla, Concrete Youth Activities Day, Shellfish-tival Family Day at Taylor Shellfish Farm, the Skagit River Salmon Festival, Fidalgo Bay Day, Festival of Family Farms and the End of the Trail Celebration.

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# Samish Watershed Upcoming Events

## Rain Garden Walking Tour



Thursday, May 30<sup>th</sup> from 5:30 to 7 pm, Burlington Scenic Regional Byway/  
Information Center at Railroad Park, 520 E. Fairhaven, Burlington

Put on your walking shoes and appropriate outdoor attire and join us for a walk and talk tour of the City of Burlington's new rain garden and LID demonstration projects, which were designed to enhance historic old town, help accommodate projected growth and development, and protect the health of Gages Slough and the Skagit River. Learn about the City's long-term vision, rain gardens, and how you can apply LID concepts to your own landscape. This FREE event is being hosted by Skagit Conservation District, City of Burlington, Skagit County Master Gardeners, and RE Sources for Sustainable Communities. To register, contact Kristi Carpenter, 428-4313 or email: [kristi@skagitcd.org](mailto:kristi@skagitcd.org). Registration deadline: May 28<sup>th</sup>.

## Mason Bee Workshop



Thursday, June 6<sup>th</sup>, 6:30 pm to 7:30 pm, Alger Community Hall

The Friday Creek Habitat Stewards invite you to catch all the buzz about mason bees! If you want beautiful gardens buzzing with nature and variety, abundant flowers, and a good crop of fruit and vegetables, come along and join us for this one hour talk with local beekeeper, Kim Kellems. Free! Sign up by June 4<sup>th</sup> by contacting Kristi @ 428-4313 or email: [kristi@skagitcd.org](mailto:kristi@skagitcd.org). Friday Creek Habitat Stewards monthly meeting immediately following – feel free to stay and join us.

## Make a Paddock Paradise: Fresh Ideas on Creating Winter Confinement Areas for Horses & Livestock

Monday, June 17<sup>th</sup>, 6:30 pm to 9:00 pm,  
PBNERR, 10441 Bay View Edison Road

Come along and join us at this upcoming workshop and gain some new fresh ideas on creating winter confinement areas for horses and livestock. Learn how innovations in confinement areas, such as track paddocks, trail courses and slow feeders can be a chore-efficient way for you to help keep your animals mentally stimulated, mud-free and healthy all winter long. Alayne Blickle from Horses for Clean Water gives this very popular presentation! Pre-register by June 12<sup>th</sup> – contact: Kristi Carpenter at 428-4313 or email: [kristi@skagitcd.org](mailto:kristi@skagitcd.org).

## Art for Learning Watershed Science Workshops



Wed. June 19<sup>th</sup> through Saturday, June 29<sup>th</sup>,  
PBNERR, 10441 Bay View Edison Road

Skagit Conservation Education Alliance (SCEA), Padilla Bay Foundation, and the Padilla Bay National Estuarine Research Reserve are bringing artists, teachers, volunteers and sponsors together to offer this new learning adventure focusing on arts, water and watershed science. Participants are invited to creatively explore the nature of water and watersheds. Descriptions, times and registration information available at: <http://www.padilla-bay.gov>, or call Richelle at 428-1054. Workshops are tailored to different ages, families learning together and for adults and teachers (some include clock hours).

## Skagit Watershed Letterbox Trail



Kick off Scheduled for Sunday, June 30<sup>th</sup>, 12 pm to 4 pm,  
PBNERR, 10441 Bay View Edison Road

The Skagit Conservation Education Alliance (SCEA) in partnership with many local partners will be kicking off this fun, annual educational family activity with a special celebration scheduled for Sunday, June 30<sup>th</sup> from noon to 4 – all ages welcome – activities, food, and music provided by the Swingnuts Jazz. The “trail” will begin on July 3<sup>rd</sup> - letterboxing is a fun, exciting way for all ages to explore the natural world. Participants follow clues (on their own time) to discover letterboxes hidden throughout the watershed, each hosted by a participating organization. Each letterbox will include a journal (for stamping) and a stamp or stickers for participants to place in their own journal (be sure to bring a journal and stamp with you). In addition, participants will collect a “secret word” to record at each site. Discover the treasures of our beautiful community. For more information contact Richelle Potter, SCEA, at 428-1054 or email: [info@SkagitCleanWater.org](mailto:info@SkagitCleanWater.org).

# 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).*

**Editor:** Kristi Carpenter, Skagit Conservation District  
**Publisher:** Snohomish Publishing



This project has been funded wholly or in part by the United States Environmental Protection Agency under assistance agreement OPOJ009601 to Skagit County Public Works. The contents of this document do not necessarily reflect the views and policies of the Environmental Protection Agency nor does mention of trade names or commercial products constitute endorsement or recommendation for use.