



SKAGIT COUNTY PUBLIC WORKS DEPARTMENT  
1800 CONTINENTAL PLACE  
MOUNT VERNON, WA 98273-5625

Postal Customer Address

**CLEAN WATER IS EVERYONE'S RESPONSIBILITY**

## We need YOUR help to clean up the Samish River

By taking a few simple steps, our community can make a huge difference in protecting water quality in our creeks, rivers, beaches, and ultimately Puget Sound.

**Only Rain Down the Drain:** Never dump anything down the storm drain or in ditches.

**In Your Yard:** Use compost and mulch instead of chemical fertilizers. Tips: [www.naturalyardcare.info](http://www.naturalyardcare.info)

**With Your Dog:** Always scoop the poop and put it in the trash. Tips: [www.scoopoopoop.org](http://www.scoopoopoop.org)

**With Your Car:** Take your car to a commercial car wash or wash it on your lawn. Fix leaks right away or soak them up with cardboard and throw it in the trash. Tips: [www.fixcarleaks.org](http://www.fixcarleaks.org)

**Cleaning Your Home:** Use less hazardous cleaning supplies and always dispose of household chemicals properly. Tips: <http://watoxics.org/files/cleaningproducts.pdf> <http://www.skagitcounty.net/Departments/PublicWorksSolidWaste/hhw.htm>

**Maintain Your Septic System:** Have your septic system inspected regularly. Tips: <http://www.skagitcounty.net/Departments/HealthEnvironmental/onsitesewer.htm>

**Take Back Your Medications:** Turn in unused medications so they don't end up in our waterways. Tips: [www.takebackyourmeds.org](http://www.takebackyourmeds.org)

**With Your Livestock:** Fence livestock away from water, plant between pastures and water, prevent overgrazing, and manage manure. Tips: <http://skagitcd.org/>

### Get educated!

Upcoming FREE classes:

#### **Holistic Approach to Livestock Management**

March 2, 6-9pm

Learn the latest on manure management and horse health. Hear from Horses for Clean Water's Alayne Blickle and equine veterinarian Dr. Julie Eihl about a holistic approach to parasite control and manure management. Learn how to compost horse manure, off-site options for dealing with stall waste and view the latest techniques for reducing stall waste in the barn. Hear about parasite control, resistance to dewormers, use/overuse of dewormers and techniques to target parasite control. Learn what "natural" options are out there and how to safely cut back on deworming. Save money, keep your horse healthy AND keep the environment healthy, too! Samish Valley Grange, 4320 State Route 9, Sedro-Woolley, WA 98284. Pre-registration requested: Contact Kristi Carpenter, Skagit Conservation District at 360-428-4313 or [kristi@skagitcd.org](mailto:kristi@skagitcd.org)

**Septic Systems 101** - available in person and online

Learn the basics of owning and operating your septic system to keep it working well for as long as possible. Keeping your septic system working well will save you money and help to keep surface and groundwater quality clean. <http://www.skagitcounty.net/Departments/HealthEnvironmental/septic101.htm>

### Get free and friendly help!

#### **Skagit Conservation District**

- ◆ FREE temporary fencing
- ◆ Farm planning
- ◆ Best management practices
- ◆ Cost share
- ◆ Native plants
- ◆ Stormwater management

<http://www.skagitcd.org>

#### **Natural Resources Stewardship Program**

FREE grant funds to:

- ◆ fence out livestock
- ◆ remove invasives
- ◆ Replant natives

<http://www.skagitcounty.net/NRSP>

#### **Loans for Septic System Repair/Replacement**

If you can't afford to repair or replace your septic system, Skagit County offers loans to help you. Contact the Environmental Public Health Department at 360-336-9474.

#### **Skagit Fisheries Enhancement Group**

- ◆ FREE visit to assess fish habitat needs & concerns
- ◆ Assistance with finding funds for barrier culvert removal/repair
- ◆ Replanting riparian areas with native plants
- ◆ Information on salmon in your stream watershed

<http://www.skagitfisheries.org/>

# Clean Samish Initiative

SKAGIT COUNTY PUBLIC WORKS

WINTER/SPRING 2015

### SPECIAL POINTS OF INTEREST:

- March through June is the critical period when the Washington Department of Health reevaluates water quality and will decide whether to upgrade our local shellfish beds.
- Even if your property is not next to a creek, stormwater runoff flowing into ditches from your property can carry bacteria to Samish Bay.

## Partners Working Hard for Clean Water

Skagit County, with the help of state agencies, tribes and volunteers continue to monitor water quality in the Samish watershed. Due to strong community participation and stewardship activities, we are continuing to make progress.

In the last year, local landowners have worked with the Skagit Conservation District to install fencing keeping livestock away from the water and implement other best management practices designed to keep pollution out of the water. Over 1700 homeowners in the Samish watershed are up to date on their septic system inspections, and 11 had their septic systems repaired in the last year. Also, local dairies have worked to protect water quality by adding winter manure storage and reducing the collection of water in manured areas.

Skagit County, and the Washington Departments of Ecology and Agriculture continue to explore the watershed to identify potential pollution sources and get them fixed.



**Volunteer Robert Pare takes a water quality sample.**

Despite all this great progress, there is still more work to be done. March through June is a critical period for the Samish watershed. If there is more than one pollution closure in the Samish during this time, the Washington Department

of Health will upgrade our shellfish beds. We won't be able to reach our goal without your help!

Even if your property is not next to a creek, you're still a part of the Samish watershed. There are probably ditches near your property that receive runoff during rainstorms. These ditches collect water and bring it to the Samish River. If the proper precautions are not taken, stormwater will carry bacteria from dog poop, livestock manure and failed septic systems to Samish Bay. That bacteria threatens public health by contaminating recreational waters and shellfish beds.

It is up to all of us to ensure that the Samish Bay watershed is a healthy place to live and work. Please help by doing your part to protect our water quality!

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## When will our shellfish beds be upgraded?

### A message from Scott Berbells at your state Department of Health

The Department of Health will again evaluate the effectiveness of pollution prevention activities in the Samish River watershed during the upcoming March through June "critical" period. Commercial shellfish harvesting restrictions will be lifted if: 1) the area receives rainfall typical for the region; 2) the river rises above the current river level closure at least six times; and 3) no more than one of the river rises have bacterial levels that exceed the safe level.

The Samish Bay Shellfish Growing Area is closed when the Samish River rises over a pre-set limit in a 24-hour period. The closure is confirmed if sampling results show that bacteria in the river are above safe levels. Since 2011, 65% of the confirmed bacteria closures took place from March through June, which has been defined as the "critical" period for the evaluation of the area. The river rose beyond the closure criteria 30 times in

2014; exceeding safe bacteria levels 13 times.



**Oysters and other shellfish are a major industry in Skagit County.**

## Introducing Crush: The Sewage-Sniffing Dog



Crush detects sewage in a sample.

Say hello to Crush, the cutest sewage-sniffing superhero you'll ever meet!

Skagit County enlisted the help of Environmental Canine Services (ECS) to help locate sources of human sewage in the Samish Bay watershed.

ECS sent Crush and handler Aryn Herval from their California office and Project Manager Karen Reyn-

olds from the main office for two days of work in the Samish Basin. Our approach was two-fold: First we brought samples in from the field for Crush to examine in a neutral-scent environment (our parking lot); then, based on those results, we sent Crush and Aryn into the field to locate the sources.

**The results were quite illuminating:** Crush found human sewage in over a dozen locations.

Skagit County Public Health is following up on those findings and has already located at least three failing septic systems based on Crush's work.

Our next project is designed to use chemical tracers of human-caused pollution (such as caffeine, sweeteners, and over-the-counter drugs) and to develop chemical tracers for livestock contamination as well.

## You want to inspect my property?!



Many people get nervous when someone from the county or the state knocks on their door and asks to do an inspection on their property. They worry that they will be fined for things that they had no idea were a problem, or won't be able to afford to fix problems that are found. The reality of inspections is much different.

### I don't have any pollution sources on my property. Why should I allow an inspection?

If an inspector contacts you about an inspection, they have found pollution in water samples nearby and are looking for sources. We know you work hard and care about your land. Sometimes practices you may not think of as being a pollution risk can be identified during an inspection. In many cases, they are easily addressed. If we inspect your farm or septic system and determine there are no sources of pollution, that information helps us focus on other potential sources in the watershed.

### Could your property be adding pollutants to the Samish River?

There are more septic systems and small farms in the watershed than there have ever been, which means there are more opportunities for pollution to get into surface water. We all need to do our part to keep our waterways clean.

### What happens during an inspection?

If you allow an inspection, someone representing Skagit County or the Washington Department of Ecology will walk your property with you, looking for things that might contribute to pollution. For a septic inspection, staff may ask to put dye in your system to see if there is a leak.

### What happens if the inspector finds a problem?

If the inspector finds a problem, he or she will document the problem on an inspection report. Finding problems is the first step in finding solutions to water quality problems! For small farms, the next step in most cases is a referral to the Skagit Conservation District for technical and financial assistance.

### I've always lived this way. Why is it a problem now?

In 1970, the population of Skagit County was about 52,000. By 2010, the population had more than doubled to nearly 117,000

### Will I get a fine?

Our goal is to help you successfully reduce the risk of discharging pollutants into the water without formal compliance actions. Penalties are a last resort in achieving water quality compliance. We would much rather work with you to get the problem fixed!

### What if I can't afford to fix the problem?

We will work to connect you with a variety of resources available to landowners that need assistance fixing pollution problems, including technical and financial support to install fencing, manure storage, and other best management practices. If your septic system needs repair or replacement, loans are available through Skagit County. We want to make it as easy as possible for you to do the right thing!

### Can you come inspect my property?

If you would like an inspector to visit your farm, contact Karen DuBose at 360-336-9400 or [kdubose@co.skagit.wa.us](mailto:kdubose@co.skagit.wa.us). If you suspect that your septic system has a problem, the first step is to hire a licensed inspector to evaluate your system. You can find a list of licensed inspectors on Skagit County's Environmental Public Health website.

Our goal is to

help you

successfully

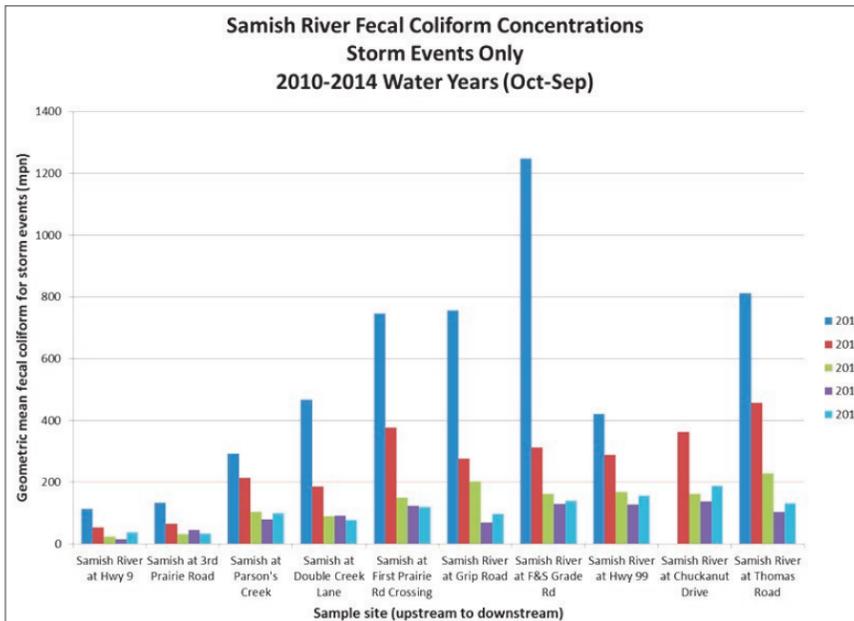
reduce the risk

of discharging

pollutants into

the water.

## Samish River Water Quality Update



This figure shows the average (geometric mean) storm event fecal coliform counts for mainstem Samish River stations from upstream (left) to downstream for 2010-2014. Each station is greatly improved from 2010, but the levels are still too high at the Thomas Road station during storm events to prevent closures

Fecal coliform bacteria come from the intestines of warm blooded animals including humans, dogs and livestock. Although most bacteria in feces are harmless, fecal coliform bacteria may indicate the presence of disease-causing pathogens that can make swimming and eating shellfish unsafe.

County personnel and Storm Team volunteers took over 800 water samples for fecal coliform analysis in the Samish Basin in 2014. This extensive sampling is conducted to assess overall watershed health, to help pinpoint sources of pollution, and to help the state Department of Health manage the Samish Bay shellfish growing area.

Water quality monitoring in the Samish Basin for 2014 continued to show much lower levels of fecal coliform than in 2010-2011,

but averages were not improved from 2013. However, 2014 averages were greatly influenced by extreme weather events in May and October. Removing the May event from the averages results in apparent improvement from 2013 on par with what was seen between 2012 and 2013 (not shown above). Extreme events are part of the Samish Basin hydrology, though, and poor water quality during those events indicates that there are still fecal coliform sources that can be reached during very high rainfall events.

of the shellfish growing area, and the storm event fecal coliform counts exceed state water quality standards.

Skagit County staff and Storm Team volunteers continue the intensive sampling program in the Samish Basin. The continued sampling is designed to locate remaining pollution sources and chart progress in the Samish Basin clean-up. Questions about water quality in the Samish Basin can be addressed to Rick Haley at 360-336-9400 or [rickh@co.skagit.wa.us](mailto:rickh@co.skagit.wa.us).

## A Landowner's Perspective on Inspections - by Wallace Groda

My farm is located on Grip Road, approximately one mile from the Samish River. It consists of an indoor riding arena with horse stalls and pastures, a small vineyard, and a fruit orchard.

Five years ago, an inspector from the State Department of Ecology visited to evaluate the farm's potential for pollution and develop options to manage any assessed problems. This was a constructive, non-confrontational visit requiring less than one hour. The inspector recommended that I contact the Skagit Conservation District, and highlighted that this service was available free of charge and that grants were available to help support recommended projects.

The subsequent visit with the Conservation District identified very little risk of water contamination and offered a practical outline of best practices that would further improve my farm operation. This plan provided side benefits of additional layers of watershed safeguards as well as a grant for financial support for a mud elimination project. The results are a significant benefit for my horses and grooming requirements for them. The project and the associated best practices plan obligated me to yearly inspections to assure meeting my grant commitments. These inspections have been of a very friendly nature with minimum hassle, are scheduled at my convenience, and only take about 30 minutes.

Working to advance the Clean Samish Initiative has been an easy objective to support. As a property owner, I feel obligated and want to manage my farm in a way that avoids any negative impact to the Samish River watershed and to my neighbors. The overall process is so easy that I continue to work with the Conservation District to host farm visits with those considering projects that would benefit the watershed.



Gravel and a concrete pad outside of the horse stalls control mud and runoff.