

Frequently Asked Questions (FAQs) regarding fecal coliform contamination in Samish River, the creeks and the Bay

What are fecal coliform bacteria and where do they come from?

These bacteria live in the gut of warm-blooded animals including humans, livestock, cats, dogs, birds and wildlife. The bacteria are carried in feces.

Problems occur when people don't manage livestock and pet waste properly, or when on-site sewage systems fail or municipal sewage piping leaks, or when bacteria from feces are discharged to land and water. Attracting wildlife by providing food for them can also create lots of fecal waste.

Ecology's review of land uses in the Samish indicates many sources: dysfunctional on-site sewage systems; livestock manure from watering, storing, or spreading too close to ditches or streams; pet waste left to 'flush-away' when it rains; waste dumping from boats; and many unprepared fishers and hunters who leave more than their footprints behind.

Why did state Department of Health (DOH) temporarily close Samish Bay shellfish beds to harvest five times between May and November 2008?

After high rain events, unusually high levels of fecal coliform bacteria appeared in the river and creeks creating a risk of disease.

DOH determines when shellfish harvesting must be closed, so when water quality data showed the problem they took precautionary steps to close harvests because of the potential risk of illness to shellfish consumers. Local shellfish growers lost thousands of dollars in sales during the first closure, which also involved a recall of products already shipped to retail outlets and restaurants.

DOH is conducting further bacteria studies on the bay after storm events when upriver locations are being monitored. The initial results show that high bacteria levels in the Bay follow rain events that result in high river flow and high concentrations of bacteria in the Samish River. This suggests that DOH may be able to use this "early warning" information to close harvests when necessary in the future. This will better protect public health and the high quality of Samish shellfish.

What are the next steps to correct this problem and who will do them?

Ecology and our partners are actively working to get the waters of the Samish watershed and Bay back to meeting state water quality standards.

Ecology's planning work relies on close cooperation with local partners including departments of Skagit County's government, and with the Skagit Conservation District--a non-regulatory agency that works with farmers to improve land management practices and protect local waters. These partners most often lead actions to protect these public water resources. Ecology's water quality improvement plan (or

Total Maximum Daily Load assessment) will be available for public review and comment in February 2009.

How has Skagit County been involved in protecting health and water?

The County's Public Health and Public Works Departments provide essential information and services in the Samish Watershed and elsewhere.

- **Skagit Health** has an exemplary on-site sewage program designed to address over 5,000 households with such systems in the Samish watershed. Due to public health threats and because of the large number of systems in “*unknown working condition*,” they have identified this basin as a Puget Sound Marine Recovery Area. Skagit Health Department's primary goal is to have all on-site systems working properly by year 2012. This goal requires periodic evaluation of all the components of on-site sewage systems---for a conventional gravity system, every three years, and annually for all other systems with electrical and mechanical components; or at time of sale or property transfer.
- **Skagit Public Works** has a very important program that monitors the quality of freshwater in this basin. They collected data during or after rain events in 2008 which showed high fecal coliform counts in the Samish River. This provided DOH with evidence that was used to protect public health during the precautionary closures. The County is currently looking for additional resources to support the water monitoring program after the Ecology Centennial Grant runs out at the end of 2008.

How does the Skagit Conservation District (SCD) help make things better in County waterbodies?

SCD's services include education, training, and funding for Best Management Practices (BMPs); and individual farm plan development for both large and small farms and numbers of livestock.

This includes advising livestock owners and landowners about ways and times for spreading manure so water is not degraded, and they have cost-share dollars available to implement BMPs. The conservation district also manages a **Stream Team** of volunteers who monitor water quality conditions in streams and provide information that adds to County and Ecology information resources.

How does the State Agriculture Dept. (Ag.) fit in to water protection?

Ag. continues to implement and improve the dairy nutrient management program and assists Ecology with their special expertise.

Ag.'s inspectors work with dairies to protect our water and help to make proper use of these valuable, but sometimes problematic manure nutrients.

What can Samish residents do to protect the water?

We **all** need to be better managers of potential sources of bacteria – pets, hobby farms, dairies, heifer operations, livestock, manure spreading operations, and on-site sewage systems. If everyone takes responsibility for managing their land and animals well, then the water quality of the creeks and rivers draining to Samish Bay can be improved and can reach the goal of meeting water quality standards.