



Focus on Samish Watershed

from Ecology's Water Quality Program

Beach and bay users and shellfish need clean water

A water quality improvement plan is being developed to establish maximum amounts of fecal coliform bacteria that the river and bay can receive and still meet state water quality standards.



The Department of Ecology held a public meeting in January at the Skagit County Fire District Station in Edison for the Samish Watershed Water Quality Improvement Plan.

Ecology identified pollution from fecal coliform bacteria as a common water quality problem in the state. These bacteria are typical and widespread, affecting at least 30 percent of the state's polluted water bodies.

Samish Bay and the Samish River (and tributaries, Friday Creek, and Thomas Creek) contain high levels of fecal coliform bacteria at many locations. These bacteria indicate the possible presence of other disease-causing bacteria (pathogens) in water. Stormwater runoff and other pathways carry bacteria into streams, lakes, and estuaries where they can infect people through drinking water, skin contact, or eating fish and shellfish.

The Department of Ecology began measuring concentrations and distributions of fecal coliform bacteria in freshwater sources into Samish Bay in the winter of 2005-2006. This work will continue through spring of 2007. Local organizations are working with Ecology on the monitoring plan. You can request to receive current information about these activities (*see "stay informed"- pg. 3*).

Water Quality Improvement Plans (TMDLs)

A water quality improvement plan (also known as a *total maximum daily load assessment* or *TMDL*) describes the amount and sources of a specific pollutant in a water body, how much the waters can absorb without violating clean water standards, and offers solutions to correct the related water quality problems.

A water quality improvement plan includes the following elements:

- A scientific evaluation of how a pollutant of concern affects water quality.
- A technical analysis of the sources of a pollutant of concern.
- An action plan to control pollutant sources and help protect water quality.

Ecology works with counties, local and tribal governments, and other concerned citizens and organizations to gather this information and prepare a plan. The plan helps these parties to work as partners to bring water bodies into compliance with state water quality standards for specific pollutants of concern.

What we will learn from monitoring the water

From February 2006 through April 2007 Ecology will study water quality in the Samish Watershed. We will measure the flow of watershed streams and the presence of fecal coliform bacteria so that we can calculate what the bacteria *loads* are at the site where the sample was collected. Identifying any changes in bacteria loads in the creeks as they run down to Samish Bay is an important part of determining any additional locations where bacteria are entering the stream. We use this information, along with data on land uses; locations of human recreational use, wildlife, and domestic animals; and inventories of on-site septic systems, including their ages and any history of problems, to plan pollution-reduction strategies that are most likely to be effective.



Samish watershed partners to improve water quality

The key part of the Samish Watershed Water Quality Improvement Plan will be how to reduce fecal coliform bacteria pollution. Skagit County, the Skagit Conservation District (see below), Skagit Health Department, Skagit Conservation Education Alliance, Native-American tribal governments, and other groups and individuals have already done much to improve water quality in the Samish Watershed. The community septic system at Edison and a number of septic repairs in Blanchard in recent years were strong steps forward. However, more work is needed.

Potential sources of fecal coliform bacteria

Human sources of these bacteria vary depending on whether the watershed has sewers or not. In non-sewered areas, failing on-site septic systems are often significant human sources of fecal coliform bacteria and other pollutants. Also, people who hunt, fish, boat, and engage in other forms of recreation without *properly disposing of their waste* put water quality at risk.

People also create problems with illegal sanitary connections and with illegal disposal or mismanagement of manure and other domestic animal wastes (cattle, horses, poultry, and other animals — including dogs and cats). Non-human sources can include pigeons, seabirds and waterfowl, rats, raccoons, squirrels, beavers, muskrats, deer, and other wild mammals.

What can you do?

Fixing fecal coliform contamination problems means each of us looking at what we do (or don't do) on our property to prevent sewage, manure, or other pollution sources from reaching public waters. To be a good steward of your watershed, here are some important things you can do:

- Make sure your on site septic system is in good working order by having it checked (or inspected) every one to three years depending on what type of septic system you have. Contact the Skagit County Public Health Department at 360-336-9380 for details.
- Manage livestock so they can water away from a stream or lake. Need help figuring out an alternative? Call the Skagit Conservation District at **360-428-4313** for help (*also, see below*).
- Protect the natural vegetation along streams and lakes — you may need to plant more. Vegetation slows and filters pollutants from runoff. Your conservation district can help.
- Bag pet waste and put it in the garbage — not in the septic system where it can cause expensive problems.
- Safeguard manure piles from rain and surface runoff. The Skagit Conservation District can help here, too.
- Use proper waste management when you are boating, fishing, hunting, hiking, and camping.
- Call the **Spill Hotline if you see a spill or illegal dumping: 800-OILS-911.**

Skagit Conservation District describes role and available assistance

The District is a non-regulatory public agency governed by a volunteer board of supervisors, representing a cross section of landowners in the local community. It provides free technical assistance to local landowners interested in improving their property and developing and implementing a farm plan.

A farm plan is a series of actions developed to meet the goals of the individual landowner while protecting water quality and the natural resources. Some of the things considered in a farm 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 such as machinery, buildings, and available finances are given top priority. The Skagit Conservation District works with farms of all sizes — from acreages with just one horse in the backyard to large dairy and beef operations.

The District also provides technical assistance and cost share funds for the design and implementation of conservation practices such as gutters; downspouts and outlet lines; manure storage facilities; fencing; watering facilities; protection of heavy use areas; and stream and riparian planting — just to name a few.



Stay Informed! Add your name to a mailing list for information about the Samish Watershed TMDL (Water Quality Improvement Plan)

The Washington Department of Ecology is working with local organizations, the Skagit Conservation District, Washington Department of Health, Skagit County, and tribal governments to develop a water quality monitoring plan that will aid in determining sources of fecal coliform bacteria to Samish Bay. For more information please contact:

**Sally Lawrence, Samish Watershed
Water Quality Improvement Plan (TMDL) Leader
Washington State Department of Ecology, Northwest Regional Office
3190 - 160th Ave SE, Bellevue, WA 98008-5452
Phone: 425-649-7036; [email: slaw461@ecy.wa.gov](mailto:slaw461@ecy.wa.gov)**

If you need this publication in an alternate format, please contact DouGlas Palenshus at 425-649-7041. Persons with hearing loss can call 711 for Washington Relay Service. Persons with a speech disability can call 877-833-6341.

3190 160th Avenue SE
Bellevue, WA 98008-5452

