



SOUTH HOLMES HARBOR SHELLFISH FACTS

ISLAND COUNTY PLANNING & COMMUNITY DEVELOPMENT

The problem: fecal coliform bacteria

Unacceptable levels of fecal Coliform bacteria in the waters of South Holmes Harbor are to blame for the shellfish harvesting closure there. "Nonpoint pollution" is the source of the fecal Coliform bacteria. Unlike "point" pollution – which refers to a single known source– nonpoint pollution is caused by one or many activities that take place across the landscape. These activities include human habits and lifestyles, and natural events.

Why do shellfish need clean water?

Shellfish do not need clean water to grow, BUT shellfish *must* have clean water to be safely eaten by humans. That is because clams, oysters, mussels and scallops are *filter feeders* – they get their food by pumping and filtering massive amounts of water through their bodies each day. [A pacific oyster pumps 65 gallons of water through its body every day!]

As water passes through the shellfish, they filter out particles for food. But

Here in the northwest, heavy rainfalls compound the problem by washing pollutants into our streams, harbors, and inlets. Runoff courses across our roofs, yards or fields, downhill and into Holmes Harbor, and carries the nonpoint pollution with it.

In essence, shellfish are like sieves, filtering particles from the water that washes over them. Shellfish capture fecal Coliform bacteria along with other particles they use for food.

shellfish are not choosy. They filter out all particles – including any chemicals, biotoxins (red tide), and bacteria and viruses. And you can't tell by looking at them what they've been filtering. If the water contains human sewage, animal wastes, disease-producing organisms, or chemicals, then these contaminants concentrate in shellfish tissue as well. The accumulated contaminants can make people sick.

SO, WHAT'S THE BIG FUSS ABOUT FECAL COLIFORM ?

The pollution causing the commercial shellfish harvesting closures in South Holmes Harbor is fecal Coliform – not just the variety of E-coli that causes serious illness from undercooked contaminated meat. (Although the two contaminants are cousins, so to speak.)

You may have heard reports about how the presence of Coliform in water tests caused people to boil their drinking water. Actually, most fecal coliforms are ordinarily harmless to humans. It's the company they keep – pathogenic bacteria and viruses – that can cause illness and disease.

Fecal Coliform occurs naturally in the gut of warm-blooded animals – such as cows, birds, dogs and cats, people and raccoons – and usually isn't a concern until it shows up in our water or food. It gets there from contaminated stormwater runoff, poor farm management, waste from pets and wildlife, leaking sewers, and failing septic systems.

NONPOINT POLLUTION COMPOUNDS

Nonpoint pollution never goes away; it constantly changes as we change our activities on the land. The best we can do is *manage* the problem, and we must do so continuously to ensure clean water in the future.

For example, extensive work can clean up identified pollution sources along a particular stream or shoreline, while problems in other areas may go uncorrected. Water quality problems often recur in the same area as time passes and owners change.

New property owners are sometimes unaware of the need for ongoing septic maintenance and use of best management practices. Living on a septic system is far different from being served by a municipal sewer, and homeowners must check their septic system regularly, including having it pumped about every three years. Homeowners can register for special training in maintaining and inspecting their septic systems, by e-mailing HomeownerSeptic@co.island.wa.us

Farm operations can also change over time. Farm plans and practices must keep pace to make that sure livestock waste does not pollute surface water. Manure should never be exposed to precipitation; rather, keep piles covered with a tarp or roof. Manure piles should be located where runoff cannot pick up waste particles as it trickles downhill.

Pet waste should be bagged and disposed of in a trash can – not buried or flushed. That's the best way to keep dangerous pathogens from infecting our soils and water. Landfills are the safest place for handling pet waste (and kitty litter). When placing pet waste in your garbage can, it is recommended that you double-bag, and limit bag size to no more than 10-gallons. If the bag is not see-through, boldly mark the outside as "pet waste".

Managing nonpoint pollution is a big challenge for us all. But if we each work to correct our daily practices, at home and work, we can reduce non-point pollution.



SOUTH HOLMES HARBOR SHELLFISH PROTECTION DISTRICT

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