



# Pend Oreille Messenger

A Semi-Annual Publication of the Tri-State Water Quality Council

Fall 2010

Welcome!

This newsletter is a project of the Nearshore Committee of the Tri-State Water Quality Council and is a chance to reflect on how much we value Lake Pend Oreille.

**A Clean Lake Begins at *Your* Doorstep!**

## Interesting Water Facts

1. Idaho has 26,000 miles of streams and rivers and 3,000 natural lakes.
2. One gallon of gasoline can contaminate 750,000 gallons of water.
3. Less than 1% of the water supply on Earth can be used as drinking water.
4. Freshwater animals are disappearing five times faster than land animals.
5. The average person in the United States uses anywhere from 80 to 100 gallons of water per day. Flushing the toilet actually makes up the largest amount of this water.

## Who is Watching Your Drinking Water?

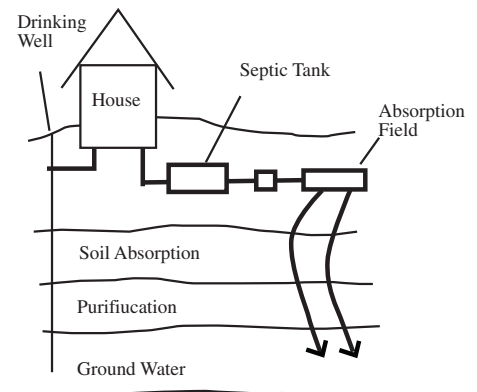
With many areas of Lake Pend Oreille beyond the reach of municipal drinking water and wastewater treatment systems, many homeowners rely on individual drinking water wells and on-site septic systems. A recent Lake Pend Oreille property owner survey revealed that over half of shoreline homeowners rely on wells and septic tanks. Properly maintained septic tanks will treat and dispose of pollutants. Drinking water wells on the same lot can deliver good, clean water for decades provided they are properly isolated from septic systems. Septic systems are at risk of failure, and drinking water systems and their aquifers are at risk of contamination, if both are not routinely maintained. (See the back page of this newsletter for more septic and well maintenance tips.)

Signs of possible trouble with your septic system include a wet area or standing water above the drain field; toilets that flush slowly or backup; sewage flooding a basement or surfacing on the ground; and septic odors occurring in the house, above the tank and drain field, or escaping from the vent pipe. An annual inspection of your septic system, by a certified inspector, and

pumping the tank at least every five years, will help keep your drinking water clean.

Even if the system appears to be working well, sludge may build up in the septic tank to the point where wastewater is released without sufficient time for solids and other particles to settle in the tank.

This may result in eventual clogging of the drain field and inadequate treatment of septic wastewater/effluent that can pollute ground water and wells, and eventually surface waters.



The ability of your drain field to properly treat the wastewater exiting your septic tank depends on soil type or particle size (sands and gravels have more “space” between soil particles resulting in faster flows, while clays have virtually no space between soil particles resulting in obstructed flows). When a septic system is installed, the location and size of the drain field is based on a soil percolation test that evaluates water movement in the soil. If your septic system is not maintained properly, the rate of water percolation through the drainfield soils may change, which can lead to inadequate treatment or an outright system failure. Most failures are caused by a malfunctioning drain field, which must then be replaced at considerable expense to the homeowner.

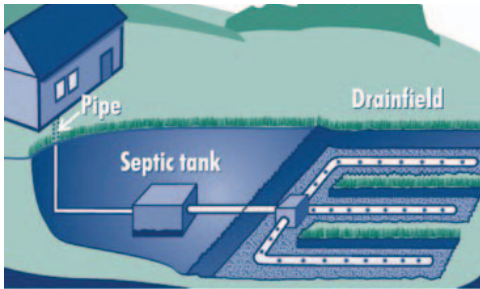
Inadequately treated wastewater that enters ground water or surface water drinking sources can have detrimental effects on both human health and the environment. Human and wildlife health impacts include risks from bacteria (giardia, E. coli, etc.) and nitrates. Nitrates add nitrogen to the bloodstream impacting the blood’s ability to carry oxygen throughout the body, and are especially harmful to pregnant women, infants, and small children. Phosphorus from inadequately treated wastewater threatens the health of Lake Pend Oreille by fertilizing nuisance plants like Eurasian watermilfoil, hampering recreational opportunities, and robbing oxygen from fish.

For questions about permits, placing, and proper maintenance of your septic system to protect your drinking water, contact the Panhandle Health District in Sandpoint at 265-6384.

## Septic Maintenance and Well Protection Tips

Here are a few tips to keep your drinking water and Lake Pend Oreille clean and healthy:

- Decrease the flow of water into the septic system by using low-flow fixtures and repairing leaks (check your toilet for leaks!) in your home's water system. This will help settle solids and prevent drain field problems.
- Don't use garbage disposals because they overload septic systems with too many nutrients.
- When siting a septic system, steer clear of drinking water wells, surface water, flood zones, steep slopes, buildings and property lines, parking areas, and roots from large trees. Don't install a system when the soil is wet.
- Don't pave, build, or drive vehicles over the septic drain field. Divert drainage from rooftops, gutters, and hoses away from the drain field. Use grass to cover the septic tank and drain field.
- When siting a well, make sure it is sealed and on the highest ground possible.
- Abandoned wells should be covered and sealed with concrete or bentonite clay by a licensed well driller to prevent pollutants from contaminating drinking water. Contact the Idaho Department of Water Resources for more information.
- Timely septic system inspection (every year) by a certified inspector will keep well and surface drinking water clean.
- Do not flush semi- or non-biodegradable material into a septic tank, such as paper towels, newspapers, or cat litter.



- Do not put harmful chemicals down your sink drains or toilet, such as chlorine bleach, paint and solvents, or motor oil.
- Do not use septic additives as they may harm organisms that treat wastewater.

Tri-State Water Quality Council  
101 N. Fourth Ave., Ste. 105, Sandpoint, Idaho 83864  
(208) 265-9092 [www.tristatecouncil.org](http://www.tristatecouncil.org)

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## Lake Pend Oreille Watershed Warrior

Under the leadership of Lieutenant Cary Kelly, the Marine Division of the Bonner County Sheriff's Department has expanded its ability to protect our waterways. Besides his regular duties, Lt. Kelly has also served on the Waterways Committee, an advisory body to the Bonner County Commissioners, for the past 12 years.



Lt. Kelly and the Waterways Committee have been able to proactively protect shorelines and sensitive areas from erosion, which reduces the amount of phosphorus pollution that threatens the health of Lake Pend Oreille. Bonner County established No-Wake Zone rules in 2001 that created a 200 foot no-wake zone from all shores. "It is particularly important that boats slow down in small bays, deltas, sloughs, and other confined areas," said Kelly.

Lt. Kelly and the Sheriff's Marine Division conduct boat safety inspections; water search and rescue missions; and respond to boating complaints, violations and accidents. They are the first to respond to hazardous material spills and regularly coordinate shoreline trash cleanups with the Idaho Department of Lands. Lt. Kelly and the Division have been supportive of programs like the new invasive species boat inspections that can help limit the spread of Eurasian Watermilfoil and other potentially harmful aquatic invaders that can devastate water quality.

Thank you, Lt. Kelly, for helping to protect Lake Pend Oreille!

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101 N. Fourth Ave., Suite 105  
Sandpoint, ID 83864  
Phone: (208) 265-9092 • Fax: (208) 265-0754

