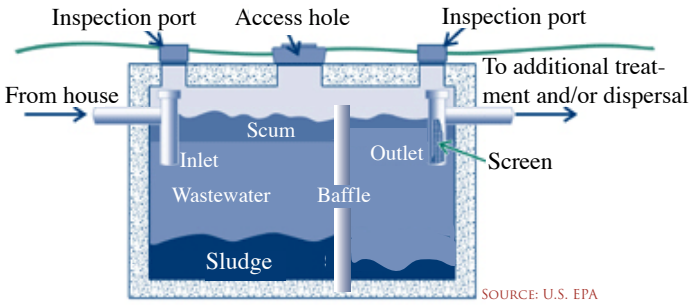
PHOTO BY CASEY HEISLER

Water bodies can be polluted by many different sources, such as industrial toxic waste, gasoline and oil spills, and sewer overflows. Most people are not aware, however, that the home site has the potential to be a source of pollution that can severely degrade the water quality of lakes, streams, or groundwater. Many homes in the Lake Almanor Basin use an onsite septic system to dispose of wastewater from toilets, sinks, tubs, and floor drains. Failing or poorly managed home septic systems are a potential source of pollution, posing serious health risks and environmental hazards.

What is a Septic System?

A septic system is designed to collect, treat, and release wastewater. First, wastewater from the house flows into the septic tank where settling occurs: heavier solids sink to the bottom and the lighter solids (like grease or soapscum) float to the top. The liquid layer in the middle is released from the septic tank through perforated pipes into the ground. The area where the liquid is released into the ground is called a drainfield or leachfield.



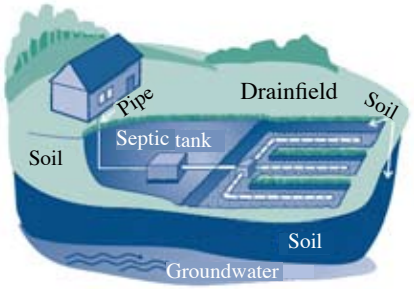
SOURCE: U.S. EPA

Why do I need to maintain my Septic System?

An improperly functioning or failing system poses significant risks to human health and the water quality of nearby rivers, lakes, and groundwater. Failing septic systems allow untreated human waste and its associated nutrients and pathogens, such as disease-causing bacteria and viruses, to enter the environment.

In addition, a poorly functioning septic system can release excess nitrogen and phosphorus into water bodies, resulting in aquatic weed growth which limits recreational use of ponds and lakes.

Too much nitrogen can also cause massive algae blooms. After the algae dies, it uses up oxygen as it decomposes, leaving the water body in a state of hypoxia, a condition in which there is less oxygen available for fish and other aquatic organisms.



SOURCE: U.S. EPA

What causes Septic System failure?

The most common cause of septic system failure is improper maintenance and care. Failure to periodically pump the tank and fix leaks, as well as adding inappropriate chemicals to the system, can degrade your septic system. Improper design, construction, or placement of the septic system in an unsuitable location can also lead to its failure.

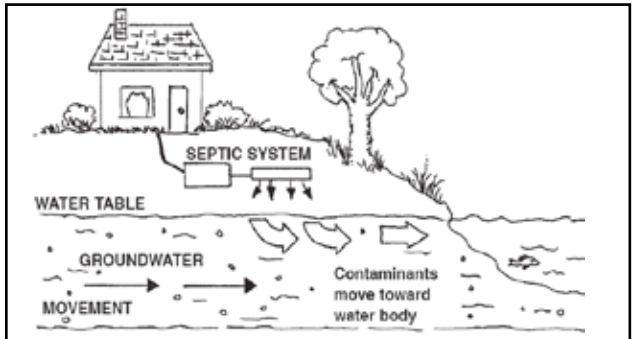
What are the benefits of maintenance?

Regular and periodic maintenance of your system will save you money, result in a better functioning system, and protect the environment. Inspecting and pumping your septic tank every 3-5 years can save you the thousands of dollars required to replace a failing system. A failing septic system can also be very costly in terms of lost property value and real estate sales. Periodic maintenance will also help ensure that your system does not contaminate nearby water with unwanted pathogens and nutrients.

Catch problems early to prevent costly repairs.

Contact Plumas County Environmental Health at **(530) 283-6355** for advice, if you notice any of the following signs of system failure:

- Offensive odors, surfacing sewage, wet spots, or lush vegetation over the drainfield
- Toilet back-ups into the tub or shower
- Slow-draining toilets or sinks (but be sure to check for clogged pipes)



Groundwater can transport biological, chemical and nutrient contaminants to nearby surface waters.

SOURCE: THE LONG ISLAND SOUND STUDY

Good Management of Septic Systems in the Watershed

In order to protect the water quality of Lake Almanor you can follow these septic system best management practices:

- **Pump your septic tank regularly.** Tanks should be pumped every 3-5 years. Check the age of the septic system. Even though well-maintained septic systems installed in the 1930s are still working, up to 50% of all septic systems fail within 25 years.

- **Watch what you put down the drain.** Do not put harmful chemicals, grease, and solids down the drain. What you put into the drain will eventually trickle down into the groundwater, or if it is too coarse, it will clog the system.

- **Avoid septic tank additives.** There is no scientific evidence that demonstrates the effectiveness of any additive, nor do they reduce the need for routine maintenance.

- **Don't plant trees and shrubs over septic tanks or drainfields.** The water-seeking roots of these plants can damage your home septic system. Grass or shallow-rooted plants tend to be the best cover for a drain or leach field.

- **Conserve water.** Conserving water by installing low-flow fixtures in your home and adopting more conservative water use practices will extend the life of the system, delay the need for repair, and lessen the likelihood of contaminating local surface and groundwater. Minimizing water use during periods of heavy rainfall or snowmelt will also reduce the potential for system malfunction.

The Sierra Institute for Community and Environment is working in partnership with Plumas County, funded by a grant from the California State Water Resources Control Board.

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For more information concerning the Lake Almanor Watershed Planning effort and how you can become involved, contact the Watershed Coordinator at (530) 284-1022 or WatershedInfo@SierraInstitute.us

Maintaining Your Septic System

Photo by Casey Heisler

Lake Almanor Watershed Project

Fact Sheet #2