



Northern Michigan's waters, like scenic Black Lake pictured here, depend on proper stewardship to remain healthy. Septic leachate can pollute our groundwater, rivers, lakes, streams and wetlands. Our focus on water quality makes septic system maintenance a key focus for the Watershed Council.

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# Something's up underground

## Septic systems and Northern Michigan's freshwater resources

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Tip of the Mitt Watershed Council

Do you know what a septic system is? Do you know if your property has one? If so, have you thought about your septic system lately?

Septic systems are underground structures that work with natural processes to treat wastewater before it is introduced back into the groundwater and surface water systems that make up our precious freshwater resources. Septic systems are out of sight, and often out of mind, which is fine when they are properly functioning. However, if not correctly maintained, or if used beyond their life expectancy, septic systems can wreak havoc on homeowners and on the surrounding water resources.

Signs that your system is not properly functioning include gurgling in your toilet or pipes, strong odors, and pooling water or lush vegetation over your drainfield.

In Michigan, 35 percent of residents rely on septic systems, and the percentage is even higher in rural areas, such as Northern Michigan. This means there are between 1.3 and 1.4 million on-site septic systems throughout the state, and each system generates an average of 300-400 gallons of sewage daily. That means on-site systems in Michigan must treat and dispose of more than 455 million gallons of wastewater each day.

When septic leachate is not properly processed, it can introduce nutrients, bacteria, viruses, pharmaceuticals, and other pollutants to our lakes, streams, wetlands and groundwater. These contaminants can present health risks, as well as environmental impacts like increased plant and algae growth along our shorelines.

Public health officials in Michigan believe reported septic system failures represent only a fraction of the total number of failures statewide, and many go undetected or unreported for years. Michigan State University studies suggest that at least a third of septic systems are not working properly.

The good news is that proactively caring for your septic system can not only protect drinking water

supplies and the environment, but it can also safeguard your investment and save you money. Malfunctioning systems can cost between \$3,000-\$10,000 to repair or replace, and costs could be higher, upwards of \$20,000, depending on the type of septic system and absorption field and the size of the septic tank. By comparison, septic system maintenance costs typically range from about \$250-\$500 every three to five years.

Michigan is the only state in the nation without uniform standards for how on-site septic systems are designed, built, installed, and maintained. As a result, local government oversight is vital for taking action to address local concerns about septic system performance. Local governments are charged with maintaining the general health, safety, and welfare of their communities, and ensuring the proper maintenance of septic systems is an important part of that work.

The Watershed Council is grateful to report that we have received generous grant funding to raise awareness of these issues and to build support for policies and regulations that will protect the public health, homeowners' investments, and our shared water resources. These efforts build on the work of Dr. Greneta Thomassey (the Watershed Council's former watershed policy director), the Health Department of Northwest Michigan, and countless community partners on the Septic Question Report series.

Policy options include mandatory inspection ordinances, time-of-transfer or point-of-sale ordinances (requiring inspections during the transfer or sale of property), and short-term rental provisions, among others. For some communities, a centralized sewer system or community cluster system may be the best fit.

Watershed Council staff, along with our community partners, will be presenting on policy opportunities for septic-system oversight at local government meetings in Emmet and Antrim counties this year. We have also created a guide to proper septic system maintenance for homeowners and a number of other handouts and resources on the topic. Please, visit us at our office in Petoskey to pick up copies of these materials.

If you are interested in learning more or requesting a presentation at a local government meeting, please contact [info@watershedcouncil.org](mailto:info@watershedcouncil.org) or 231-347-1181.

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