

Maine Lakes Society

Advocacy, Education, and Action to Protect Maine Lakes

Testimony in SUPPORT of:

LD 216, An Act to Protect Water Quality by Standardizing the Law
Concerning Septic Inspection in the Shoreland Zone; and,

LD 319, An Act to Standardize the Laws Concerning
Property Transfers and to Protect Water Quality

*Submitted to the Environment and Natural Resources Committee
February 7, 2019*

Good afternoon, Chair Carson, Chair Tucker, and Distinguished Members of the Environment and Natural Resources Committee. Thank you for the opportunity to appear before you today. My name is Susan Gallo, and I'm the Executive Director of the Maine Lakes Society. Our membership organization includes more than 1,600 individual members as well as over 140 member Lake Associations. Our membership is dedicated to our mission of promoting, protecting and enhancing lake water quality, and of preserving the ecological, economic, recreational, and aesthetic benefits of Maine's lakes for all Maine people.

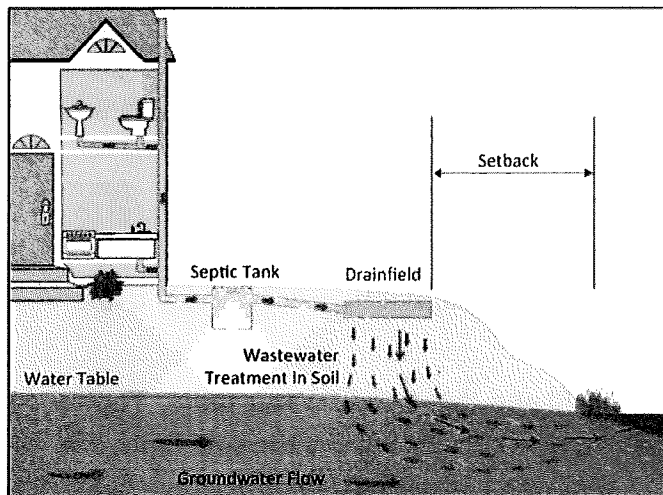


Illustration of the potential for septic systems to contaminate lake water. Even though the source might be small, it adds to an ever increasing inflow of phosphorous from other sources. Modified from U.S. EPA.

The two bills I am supporting today make the same change to the existing law around property transfers in the shoreland zone. Property transfers in coastal shoreland zones have required inspections of subsurface wastewater treatment systems since 2008. This bill would extend that same protection to inland shoreland zones. This change makes sense because it will preserve the water quality of our valuable great ponds and protect lake shorefront property value, the interests of lakefront property sellers and purchasers, and the property tax income of many Maine towns.

It is worth mentioning that this committee unanimously passed a similar bill in 2017. That bill enjoyed widespread and bipartisan support in both the house and senate. It was vetoed by the governor and by a handful of votes missed the vote to override. Looking at the sponsors on these two proposals in front of you, you once again see broad bipartisan support for this measure. And that support is warranted for many reasons:

- 1) Lakes are highly sensitive waterbodies. Unlike rivers and streams that flow and thus constantly renew themselves, lakes are still waters that retain the vast majority of nutrients, sediments, and chemicals from runoff, streams, springs, and underground sources such as subsurface wastewater systems. Too much phosphorous is the primary driver of water quality decline. Unfortunately many of Maine's subsurface wastewater systems are not designed to filter out phosphorous, thus in the shoreland zone, they pose a risk for contributing additional phosphorus to lake water and increasing the likelihood of a water quality degradation.
- 2) Lakes with too much phosphorus are more likely to "bloom" with massive growths of algae, particularly in mid-to late summer. According to the Maine Department of Environmental Protection, more than 63 Maine lakes are at moderate to high risk of having a significant algal bloom, with around 30 blooming each year.
- 3) While we cannot precisely pinpoint the extent of malfunctioning septic systems in Maine's shoreland zone, data from a few locations where inspections are required shows malfunctions range from 20% in MAⁱ, 31% in OHⁱⁱ, 30% for older systems in INⁱⁱⁱ, and 20-25% in MI^{iv}. Maine's camps have older systems that are expected to experience similar or higher rates of malfunction.
- 4) The public generally associates a failing system with ponding or backflow into the home. The real issue however is the threat to water quality from so-called "straight pipe" and older systems (60+ years) which often will neither pond nor cause back flows. Straight pipe systems exist where soils are sandy or thin or the bedrock is fractured. These conditions don't remove phosphorus from the effluent flows with groundwater into the lake. Sandy soils and fractured bedrock are common around Maine lakes.
- 5) Ponding and backflow are hydraulic problems that in most cases are not harmful to waterbodies. These malfunctions are easily detected by the homeowner and sufficiently unpleasant and threatening to human health that they are quickly dealt with.
- 6) Most states require 4' between the disposal field and the ground water table. That is not possible in Maine. Our requirement is only 18" because that is the soil depth we often have available. So many shorefront wastewater treatment systems have been built with suboptimal soil conditions and specifications to begin with.
- 7) Finally, many systems are old. Subsurface waste water treatment systems built before 1989 are all suspect, not only because of their age, but because site evaluation standards in place at the time they were installed did not adequately take soil

characteristics into consideration. Many older systems (which can be simply a buried metal barrel, now long gone) are rarely identified without a septic inspection.

How much does all this cost? Lakes are true economic miracles, fueling the economic vitality of municipalities and regions across our state. From a regional perspective, a study published in 2005 by the University of Maine and the Maine Congress of Lakes Associations showed that *Maine's great ponds generate \$3.5 billion spending annually in 2005 dollars, provide drinking water to a third of our population and are the basis for 52,000 jobs.* v When you consider these lake benefits in the context of lake sensitivity and factor in what we now know to be a striking increase in extreme weather events in Maine, leading to higher rates of erosion and runoff, you must conclude that taking this fair step to reduce septic effluent from the mix is prudent. What we are after is a methodical way to eliminate malfunctioning systems as the lakefront housing stock gradually changes from owner to owner.

Because all the data point to widespread water quality declines in Maine lakes, because phosphorus is a constituent pollutant of septic effluent, and because subsurface wastewater systems aren't designed, nor purported, to sequester phosphorus, we support LD 216/319 as a way to detect malfunctioning subsurface wastewater treatment systems in a methodical and manageable way, and help protect the valuable natural asset that is Maine's clean and clear lake water.

Finally, one last thing to bear in mind as you deliberate. Now that most of us enjoy the comfort and convenience of indoor plumbing, the magic of the flush has hidden the physics, chemistry and biology of subsurface wastewater treatment systems from our sight. Out of sight often means out of mind, too. Urban and suburban buyers of lakefront vacation homes, used to public wastewater treatment systems, may be innocent of the fate of human waste and its potential harm to a lake they value highly. In this connection, it's important to note that Maine has a very high percentage of second, or vacation homes, the highest, in fact in the nation at 15.6% or 101,540 out of 656, 901 homes according to the 2010 US census.

Persons purchasing lakefront properties will benefit from enactment of LD 216/319, as will sellers who might unknowingly sell property with ineffective septic systems only to belatedly find themselves liable for damages.

Please vote unanimously ***Ought to Pass*** on these prudent standardization measure.

Thank you for your time and attention today,



Susan Gallo
Executive Director

ⁱ <http://www2.ca.uky.edu/agcomm/pubs/HENV/HENV502/HENV502.pdf>

ⁱⁱ <https://www.dispatch.com/content/stories/local/2013/02/10/31-of-septic-systems-are-tanking.html>

ⁱⁱⁱ <http://www2.ca.uky.edu/agcomm/pubs/HENV/HENV502/HENV502.pdf>

^{iv} <https://www.oshtemo.org/wp-content/uploads/2017/02/2015-MSU-Septic-Systems-Report-and-News-Articles.pdf>

^v Updated from *Water Quality Affects Property Prices: A Case Study of Selected Lakes*, K.J. Boyle, R Bouchard, and H. J. Michael, 1994.