Maine Lakes Society
FOR THE SAKE OF MAINE'S LAKES

Policy, Education, and Action to Protect Maine Lakes

The Maine Lakes Society protects Maine's lakes, ponds and watersheds and their many benefits for current and future generations through science-based action, education and advocacy and by supporting and promoting local lake associations

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LD 559: An Act to Standardize the Law Concerning Property Transfers and to Protect Water Quality

Good afternoon, Senator Volk, Representative Fecteau, and Distinguished Members of the Commerce, Labor, Research and Community Development Committee. Thank you for the privilege of appearing before you today. My name is Maggie Shannon, and I'm the Executive Director of the Maine Lakes Society, which was founded as the Congress of Lake Associations in 1970. Today the Society represents well over 15,000 people actively involved in lake protection through 140 lake associations and hundreds of individuals who are our members.

I'm speaking in favor of Representative Hilliard's bill, **LD 559 An Act to Standardize the Law Concerning Property Transfers and to Protect Water Quality**. We think this methodical standardization measure is beneficial on both a societal and individual level because it will preserve the water quality of our irreplaceable great ponds protect the interests of lakefront property sellers and purchasers.

Properties in coastal shorelands have required inspections of subsurface wastewater treatment systems since 2008. Representative Hilliard's initiative would extend that same protection to inland waters as well. *This is vital for many reasons:*

- Lakes are highly sensitive waterbodies. Unlike rivers and streams that flow and thus constantly renew themselves, lakes are still waters and keep 90% of what enters them. Nutrient buildup can lead to internal recycling of nutrients, particularly phosphorus -- the limiting nutrient in water quality condition. Internal recycling adds to overland and atmospheric nutrient deposition and increases the likelihood of nuisance and/or toxic algal blooms that characterize eutrophication.
- 239 lakes or 10% of our 2,314 publicly owned lakes, Maine's great ponds, are on the list of "Direct Watersheds of Lakes Most at Risk from Development," maintained by the Maine Department of Environmental Protection. Excessive nutrient loading – from cultural development including subsurface wastewater system effluent – is the chief cause of these water quality declines.
- In short, phosphorus pollution is *out of control* in 239 Lakes and the number is growing (see Complete List in attachment).
- Already, "Repeated nuisance algal blooms have been recorded on more than 53 Maine lakes and another 493 are considered at significant risk" according to the Maine Department of Environmental Protection web site.
- While we cannot precisely pinpoint the extent of malfunctioning septic systems in lake shorelands, data from locations where inspections are required, shows the range of malfunction to be between 15% and 30%.
- Septic systems **are not designed to remove or treat phosphorous** except indirectly. It is the native soils beneath the leach field that remove the phosphorus, and to a lesser degree the biomat which forms between the disposal field and the soils. Both soils and biomat will lose their sequestering capacity over time.

- It is the soluble reactive phosphorus (SRP) which leaches from subsurface disposal fields that is s a major threat to our lakes. The aerobic native soil layer, which lies between the bottom of the field and the top of the water table, serves to capture and immobilize SRP. However, the capacity of that soil to sequester phosphorus is time limited, estimated to last between 10 and 40 years.
- Then, too, we need to account for the thin soil layer across our state. Most states require 4 feet between the disposal field and the ground water table. That is not possible in Maine. Our requirement is only 16 inches because that is the practicable standard. Shorefront properties are often sited on fractured bedrock and thin soils to begin with, so our base conditions are not highly protective of water quality.
- Grandfathered subsurface waste water treatment systems built before 1989 are all suspect, not only because of age, but because site evaluation standards didn't adequately take soil characteristics into consideration before then.
- In addition to being time-limited, system functionality is also affected by use and treatment. Many factors have an adverse effect, including how heavily the system is used, whether it is year round or seasonal, whether materials or additives have been put down the drain, whether the homeowner has a garbage disposal and uses it to get rid of food waste, whether the drain field has been damaged by vehicles and whether runoff is directed to it or not, among other considerations.
- The public is apt to equate a failing system with ponding or backflow into the home and think these hydraulic problems are the telltale signs of malfunction harmful to nearby waterbodies, but that is normally not so. In the first place, these malfunctions are easily detected by the homeowner and sufficiently unpleasant and threatening to health to be quickly dealt with. Instead, the real culprit is the so called "straight pipe" from disposal field to waterbody that threatens lakes, streams, wetlands, and rivers. Straight pipe systems, either because the site has inadequate cleansing capacity due to sandy or thin soils or fractured bedrock, don't remove nutrients from the effluent. What is worse, they are unlikely to be identified without an inspection.

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 559 because it provides a way to detect malfunctioning subsurface wastewater treatment systems in a methodical and manageable way.

How much does all this count? Lakes are true economic miracles, fueling the economic vitality of municipalities and regions across our state. Some years ago, a now-retired state representative from Wayne was fond of asking colleagues, "How many lakes does it take to float a school?" From a larger than regional perspective, a study published in 2005 by the University of Maine and the Maine Congress of Lakes Associations (which updated "Water Quality Affects Property Prices: A Case Study of Selected Lakes" by K.J. Boyle, R Bouchard, and H. J. Michael, 1994,) 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.* 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.

Finally, one last thing to bear in mind as you deliberate on LD 559. 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 ne innocent of the fate of human waste and its potential on 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 2011 US census.* (Department of Commerce, https://www.census.gov/hhes/www/housing/census/historic/vacation.html) Persons purchasing lakefront properties will benefit from enactment of LD 559, as would the 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 Representative Hilliard's prudent standardization measure.

Thank you for your time and attention today,

Maggie Shannon

"The people of Maine should keep in mind that they are the actual owners of the lakes of Maine and of the water contained in them. These lakes and this water is public property of inestimable value." Percival P Baxter, 53rd Governor of Maine, 1923