McGrath Pond-Salmon Lake Association

Stewards of Our Belgrade Lakes

Spring/Summer 2025 Newsletter

Editor's Corner

By Lenny Reich

As you may recall, both McGrath Pond and Salmon Lake had excellent water quality last summer. In fact, Lake Scientist Matt Farragher tells us in this issue of the Newsletter that McGrath and Salmon were the two clearest lakes in the Belgrades during summer and fall 2024. We must be doing something right!

But before I tire myself out patting us on the back, I should point out that we were assisted in no small way by the absence of heavy, prolonged downpours over the entire period, and late summer into the early fall saw a mini drought. Those climatic conditions were especially helpful for Salmon Lake, which bypassed its normal fall algae bloom. The missing prolonged downpours cause the gully-washers that stir up the lakes with eroded phosphorus that fertilizes the small amount of ever-present algae. You could say we dodged trillions of tiny bullets.

So, last summer was the good news: some soaking rains during the spring and early summer to keep everything moist and green, then a short drought toward the end. Late fall returned us to normal rains. That was good for the lakes in this era of human development around the lakeshores.

However, it's not the norm, and climate change appears to be an inexorable process in the absence of serious efforts to rein in our activities that release heat-trapping gases. We must not let one good summer lull us into complacency. The forces of nature set loose by humanity, whether on the ground or in the atmosphere, will continue working to degrade the quality of our waters.

Our umbrella organization in the Belgrade Lakes watershed, 7 Lakes Alliance, is launching a summer-long trial run of its new Paddler's Trail, with Pleasant Point Park at the top of McGrath Pond as one endpoint. Another is the Oakland Waterfront Park on the south side of downtown Oakland.

The Trail goes down McGrath Pond, through The Narrows, then across Salmon Lake to the outlet stream. Another part of the Trail goes from the Colby Outing Club property on Snug Harbor Road across Great Pond to Mill Stream and the Village Dam. After a quick portage at Peninsula Park, it continues across Upper Long Pond, through the Castle Island Narrows into Lower Long Pond and eventually winds up at the Oakland Waterfront Park.

7 Lakes Alliance either owns or has access to land for stops at several points along the Trail. Arrangements at those locations are currently being developed and will be publicized when they are ready. An introductory "Paddle Sojourn" of three day-paddles along the Trail will be led by 7 Lakes staff on July 18, 19, & 20th. Check their website for details. A map of the trail is in the works and should be available this summer.

Those members who've been coming to MPSLA annual meetings since the 1990s may remember one attendee who, at that time, regularly raised the specter of phosphorus entering the lakes because of failed septic systems. No doubt he had a point, but no one was sure what to do about it. In the 30 years since, we've learned what to do.

I've spent the last two years on the Town of Belgrade's Lakes & Natural Resources Committee looking at improving the town's Shoreland Zoning Ordinance to better protect its lakes, and one area we've explored in depth is septic systems. Having learned a good deal of how they function and about their fraught relationship to lakes, I decided to put that knowledge to work with an article — published here for the first time — to help people who have septic systems on their shorefront properties best use and maintain those systems to protect our lakes. I would like to dedicate the article to the MPSLA member who raised the alarm 30 years ago, J. Reese Roth.

MPSLA's 2025 Lakeside Calendar was a big success, and we look forward to doing another for 2026. Having one grace your wall is a great way hang out at the lake right through that long winter ahead. Please submit your best lake photos for inclusion and get a free calendar if one is chosen. Files of at least 1 mb are preferred. Send them to outreach@mcgrathpond-salmonlake.org

Speaking of submitted photos, this Newsletter's gorgeous cover is a photo submitted for the 2024 calendar, but the link back to the sender's identifying information has been lost. If it's yours, please let us know, and we will acknowledge you in the Fall/Winter issue.

And finally, a couple of important dates to mark on your calendar: July 17th for the midsummer MPSLA potluck supper, and August 7th for the Annual Meeting. More information about those events can be found on page 9.

Lenny Reich

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Kim and Dave Hallee: MPSLA's LakeSmarties

Dave and Kim Hallee have always loved Maine lakes. Dave grew up in Waterville going summers to McGrath Pond with friends, and Kim spent time on Wesserunsett Lake as a kid in Madison. They've lived near downtown Waterville for many years and thought they couldn't afford a place on a lake until they saw Oakland's listing for a foreclosed "fixer-upper" camp on McGrath Pond in 2011. It had sat unused for decades and was available for a very attractive price.

"When we took possession in 2012 and got inside the main building," said Dave, "we found the place had been taken over by rodents." A 30-year-old calendar graced the kitchen wall. "There were enough acorns in the old stove" added Kim, "to reforest most of the north woods!" With a tarp over the roof to keep out rain, sheets of plywood to walk on the rotten floors, and a camp stove outside for cooking, they made do while fixing things to where the camp was habitable. It had never been wired for electricity.

When it came time to tackle the overgrown waterfront, many years working on a community project to resuscitate their South End neighborhood in Waterville told them to seek out information so the property contributed to its surroundings. "It had us thinking like citizen-scientists," Kim commented. Dave stopped by the Maine Lakes Resource Center in Belgrade Lakes Village to see what they had to offer, and, he remembers with a chuckle, "A nice woman had me sign up the two of us for classes that were about to start on how to do just what we had in mind."

That nice woman turned out to be Maggie Shannon, then Executive Director of Maine Lakes Society and state director for LakeSmart, a program to encourage and certify lake-friendly residential landscaping. Dave and Kim had walked into some of the earliest LakeSmart training in the Belgrade Lakes region.

Not only did they learn how to make their overgrown camp property into a showplace for how to live lightly on the land to protect the lake, they also became McGrath Pond's and Salmon Lake's original LakeSmart evaluators. On request from owners, they visit properties around the lakes and show the owners how to make their properties LakeSmart, often connecting them with 7 Lakes Alliance's Youth Conservation Corps to do on-the-ground work like planting buffers of native plants, making winding pathways, and stabilizing shorelines. When properties go through the LakeSmart process, they usually get more attractive as they become lake-friendly.

"LakeSmart has evolved in the years we've been involved," Dave mentioned, "and in some ways become more stringent." In part, he said, that's because a lot has been learned about how human activities on the land affect water quality.

"Climate change, with its higher temperatures and heavier, longer rainstorms, makes protecting our lakes more difficult," added Kim. "LakeSmart has adapted by emphasizing the portion of land between the house or camp and the waterfront. That's where the activity takes place, so it's where soil most often erodes into the lake. It's the piece of property to protect first and foremost, and so it's emphasized in our evaluation."

After a dozen years, they've evaluated 84 properties on the two lakes, presented 36 LakeSmart awards, and are still going strong. They've trained another evaluator on McGrath Pond, Doug Mather, and would like to find one or two enthusiastic folks to join the LakeSmart team on Salmon Lake.

In addition to LakeSmart, Kim and Dave got involved in MPSLA early on. Visiting a Board of Directors meeting at then-Treasurer John Loomis's home, Kim soon found herself on the Board as Secretary. Then Dave joined Kim for a Board meeting at the home of long-time MPSLA President Ron Purnell. Before long, he had agreed to take over for Ron and serve as President for a few years until a better-qualified person could be found.

So, by 2014, two years into their McGrath Pond experience, Dave and Kim had become President and Secretary of our Lake Association as well as the first LakeSmart evaluators for McGrath Pond and Salmon Lake. "It certainly was Everything Everywhere All At Once when we first got involved," Kim said with a grin.

Dave eventually served four years as President before happily turning the reins over to Jenny Allen. Having gone through training with Lake Stewards of Maine, he continues to take weekly water quality readings on both lakes, which involves using a Secchi disk to measure water clarity and a digital meter to measure dissolved oxygen from near the surface to the bottoms of the lakes. Kim often accompanies him and assists.

Back on their own property, Kim and Dave have replaced the old camp buildings with new ones. "We did that incrementally," said Kim. "We tore down the garage first, then the shed, then the bunkhouse, and rebuilt them. That was all pretty methodical. When we got to the point of doing the main camp, I said, 'Let's not build as close to the water, even though we can. We have some space here, let's build further back.'"

The new main camp – built by Dave and Kim's brother Kent – is completed now, with just a bit of interior trim on the punch list. The entire makeover process for the property took about a decade, done on an available time-and-resources basis, with both Kim and Dave working full-time through most of it.

"People would ask why we didn't build closer to the water, and I'd launch into my spiel about how we are planting a big buffer in front of the camp to be a model for protecting the lake," said citizen-scientist Kim of their big demonstration project. "We're just about 100 feet back. I would love to have people stop by and see what we've done."

To contact Kim and Dave Hallee for a LakeSmart evaluation, to "stop by and see what [they've] done" on their property, or for any other good reason, you can email them at khalleern@gmail.com

100' buffer as seen from deck on main camp building

Water Quality Update

By Matt Farragher
Lake Scientist – 7 Lakes Alliance

After an exceptionally rainy 2023 and a couple of big storms in the early spring of 2024, last summer and fall ended up being fairly dry across the state. The impact on the lakes in the Belgrade region varied, but McGrath Pond and Salmon Lake had a year of great water quality, with both lakes showing clarity improved from 2023, and better than average clarity compared to the previous decade.

Matt Farragher taking dissolved oxygen readings through the ice last winter.

A reliable way to measure water clarity is by sinking a black-and-white Secchi disk into the water and measuring how far down it remains visible. McGrath Pond had the best average water clarity of all the seven Belgrade Lakes at 21.3 feet, with the Secchi disk still visible on the bottom of the lake (24 feet) on many occasions during the season (Fig.1). McGrath Pond averaged two feet better clarity this year compared to 2023 (19.6 ft) and nearly as great an improvement over its ten-year average, 2014-23 (20.3 feet). The poorest water clarity on McGrath Pond was 16.7 feet in early September – a time when shallow lakes typically mix, as surface water cools and sinks to the bottom. That causes an upwelling of deep, nutrient-rich water that becomes available for algae growth.

Salmon Lake was much better in 2024 than in recent years, most notably because it did not experience a severe algae bloom (Fig.2). The Maine DEP defines a severe algae bloom as water clarity dropping below 2 meters (6.6 feet). The poorest water clarity measurement on Salmon Lake was 12.8 feet in mid-September. In previous years, this was when the lake had a severe bloom, for example, 2023's clarity of 5.2 feet.

The average water clarity on Salmon Lake (19.4 feet) was better than its ten-year average (18.0 feet), making Salmon Lake the second-clearest lake across all seven Belgrade Lakes during 2024, behind only McGrath Pond. Salmon Lake can in fact boast the single best water clarity measurement of the seven lakes for the entire 2024 season, with a value of 26.1 feet in late June.

Last summer and fall were much better than previous years for both Salmon and McGrath, but another summer of higher rainfall and resulting erosion could lead to more inputs of nutrients into the lakes, compromising their clarity. To preserve our lakes, please visit 7lakesalliance.org, where you can learn more about what you can do to reduce erosion to help keep our lakes clear and clean.

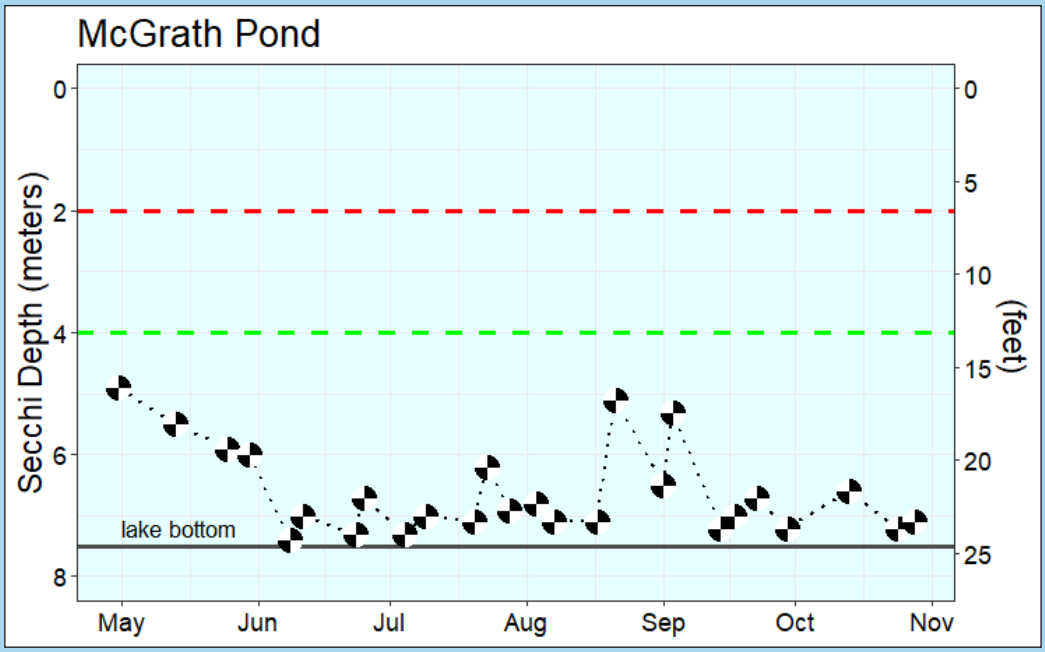


Figure 1. Secchi disk depth (meters on left, feet on right) for McGrath Pond in 2024. Note the inverted y-axis (that is, the surface of the lake is on top of the graph). The red and green dotted lines divide the area into three zones: water clarity less than 2 m (6.6 feet), indicating a severe algae bloom; values between 2 m and 4 m, indicating poor water clarity with moderate algae growth; values deeper than 4 m (13.2 feet), indicating good water clarity and low algae growth.

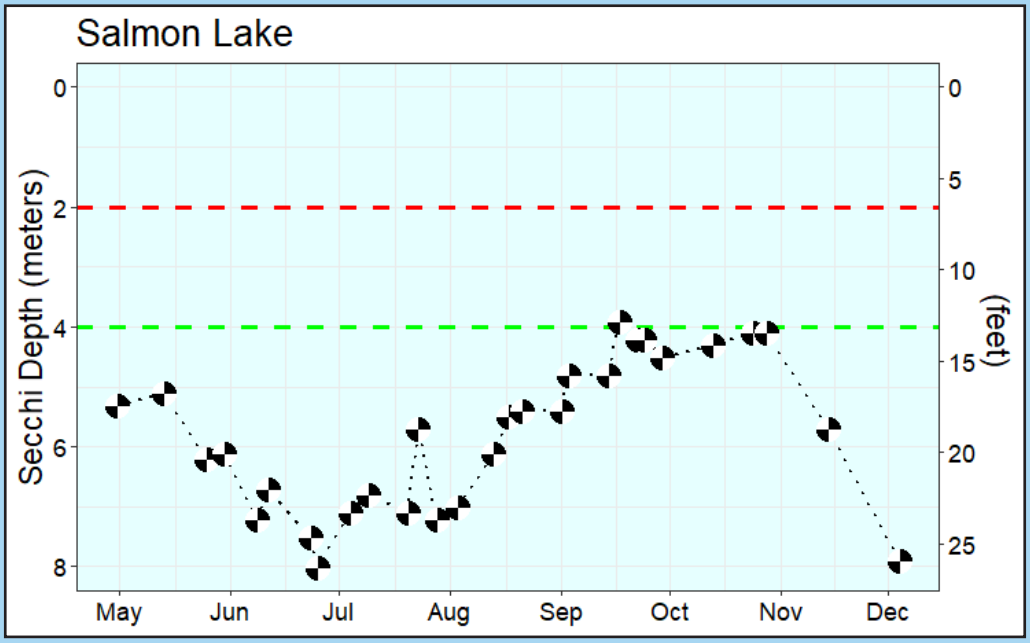


Figure 2. Secchi disk depth (meters on left, feet on right) for Salmon Lake in 2024.

What You Should Know about PFAS in Our Lakes

By the MPSLA Water Quality Committee

The Water Quality Committee has worked hard over the past few years to find out more about higher-than-expected water contaminant indicators in McGrath Pond. Our findings prompted Maine DEP to conduct sampling in 2023 that found elevated levels of PFAS in the groundwater near the Oakland landfill, in the stream leaving the landfill and cascading down the watershed, and in McGrath Pond. PFAS comprise a group of man-made chemicals that have been linked to multiple cancers, disruption of hormones, liver and thyroid abnormalities, high blood pressure, and kidney diseases, among other health issues.

Due to the high concentrations of PFAS in the lake water, DEP then measured the level of one PFAS chemical, PFOS, in fish flesh from both McGrath Pond and Salmon Lake. (McGrath Pond water flows through The Narrows into Salmon Lake.) The results prompted Maine CDC to issue a Fish Consumption Advisory in June 2024, cautioning people to consume "no more than one meal per month of any fish species." You can read a brief on the science plus the actual advisory here: https://www.maine.gov/dhhs/mecdc/environmental-health/eohp/fish/documents/pfas-fish-scientific-brief-06182024.pdf

MPSLA would like to work with the Towns of Oakland and Belgrade to organize public notification programs to supplement the notice that Maine Inland Fisheries & Wildlife has published in its annual pamphlet Maine Fishing Laws. The goal of such a program is to alert those who fish or boat in McGrath Pond and Salmon Lake, and especially those who make use of lake water in their homes or camps. We believe it is incumbent on local governments to give citizens the information they need to keep themselves safe from harm.

Here is some important information about PFAS in freshwater ponds, based on a Maine CDC compilation of Frequently Asked Questions:

What are PFAS?

PFAS refers to a family of chemicals known as per- and polyfluoroalkyl substances. PFAS have been used since the 1950s to make products that repel water and resist stains and grease. PFAS have been used in carpets, fabrics, food packaging, pots and pans, and personal care products, among other things.

Why is PFAS in freshwater fish?

PFAS found in freshwater fish typically come from sites associated historically with PFAS, including landfills, industrial sites that used or processed PFAS, and farm fields where sludge that contained PFAS was spread as fertilizer. PFAS may have been carried into ponds by surface streams or been transported there by leaching into ground water (or both). Fish that live in contaminated water bodies accumulate PFAS in their tissues. The PFAS perfluorooctane sulfonic acid (PFOS) is the most common PFAS detected in fish from the two ponds.

What are PFAS fish consumption advisories?

Fish consumption advisories are recommendations from the Maine Center for Disease Control and Prevention (Maine CDC) on the amount of fish from a specific water body that is safe to consume (i.e., the number of fish meals per week, month, or year).

Is there a way of cleaning or cooking fish to rid it of PFAS?

No. You cannot get rid of PFAS by cooking, cleaning, or removing certain parts of the fish.

Should I be concerned if I have eaten fish from one of the advisory areas?

Eating fish from one of the advisory areas doesn't necessarily mean that you will become ill. Your risk of any health effects will depend on how much fish you eat at a time and how often you eat fish caught from these areas.

Is it safe to go fishing if I don't eat the fish?

Yes, fishing in most water bodies with a consumption advisory is safe as long as you follow the consumption limit in the advisory.

Can I safely swim, wade, or boat in water bodies that have PFAS fish consumption advisories?

Yes, unless other site-specific guidance has been issued (e.g., water bodies on the former Naval Air Station in Brunswick). Exposure to PFAS associated with swimming, wading, and boating is much less than exposure from drinking water or eating fish containing PFAS. These recreational activities are considered safe because PFAS are not normally absorbed through the skin.

Interested readers can learn more at the CDC website: https://www.maine.gov/dhhs/mecdc/environmental-health/eohp/fish/documents/fish-advisory-faq-08232024.pdf. You can also contact one of the CDC toxicologists at 866-292-3474.

UPCOMING EVENTS

July 4th – McGrath Pond Independence Day Flotilla
3:00 pm Pleasant Point Park

July 17th – MPSLA Barbeque & Pot-Luck Supper
5:30 pm (rain date: July 18th)
RSVP for Directions: outreach@mcgrathpond-salmonlake.org

July 18-20th – Paddler's Trail Paddle Sojourn

August 7th – MPSLA Annual Meeting
6:00 PM Pleasant Point Park
Rain Date AUGUST 8th with notification by 3:00 pm on FB and email

Presentation by Mel Croft

Listening to the Rocks

400,000,000 Years of Our Belgrade Lakes

A Lake Lover's Guide to Septic Systems

By Lenny Reich

Let's start with two little-known facts about septic systems and lakes: First, as the name implies, septic systems are primarily used to remove pathogens from sewage. They're not intended to deal with the nutrients that turn lakes green, although they can remove those nutrients if they're well maintained and their leach (drainage) fields are in a good mix of clay, silt, and sand – not sand and gravel, which detoxify pathogens but give a pass to the primary nutrient in sewage, phosphorus.

Second little-known fact: One pound of phosphorus in a lake will feed 500 pounds of algae. A family of four deposits about six pounds of phosphorus in its septic system over the course of a year. That's enough to grow *a ton and a half* of lake algae, so it's vital to contain phosphorus in the septic tank (to be pumped out) or capture it in the soil before it reaches our lakes.

Whether or not septic systems compromise lake water quality depends on a number of factors: what kind and how deep the soils their leach fields are in, how far back those fields are from the lake, what users put into their septic systems, and how well the septic systems are maintained.

Before we get into septic systems, though, recall the Good Old Days, when a family home or camp could be characterized as "so-many rooms and a path," that path leading to an outhouse – a hole in the ground topped by an open seat. With the advent of rural electrification after 1930, owners of these properties began to have deep wells drilled, outfit them with electric pumps, and bring plumbing indoors.

The early indoor commodes flushed human waste into holes, trenches, or buried, perforated 55-gallon metal oil drums. These cesspits and drums also had water piped into them, which diluted the waste solids (unlike the outhouse) and quickly overwhelmed the natural treatment ability of the soils. Because there were as yet no regulations, these foul holes and trenches could be placed as close to lakes as the owners found convenient. Once in the groundwater, contaminants easily migrated into nearby lakes. Fortunately, there weren't many of these pollution factories, so in most cases water quality didn't suffer badly.

Developed in late 19th century France, septic systems were introduced around the lakes during the 1950s, but by later standards they were undersized and often placed quite near the water. Beginning in 1971, Maine's first shoreland zoning regulations called for septic systems to treat wastewater, although with minimal specifications. In 1974, updated regulations required septic systems be designed by licensed site evaluators and approved by local plumbing inspectors, with large tanks and leach fields in appropriate soils and no closer than 100 feet to a lake. The regulations were extended and tightened in 1995. However, they only applied to new applications, and many cesspits, metal drums, and undersized leach fields next to lakes remained in operation for decades. Some still are.

So, before we talk about your septic system doing its job, let's ask whether you might have something other than an actual septic system on your property. If you aren't certain, your

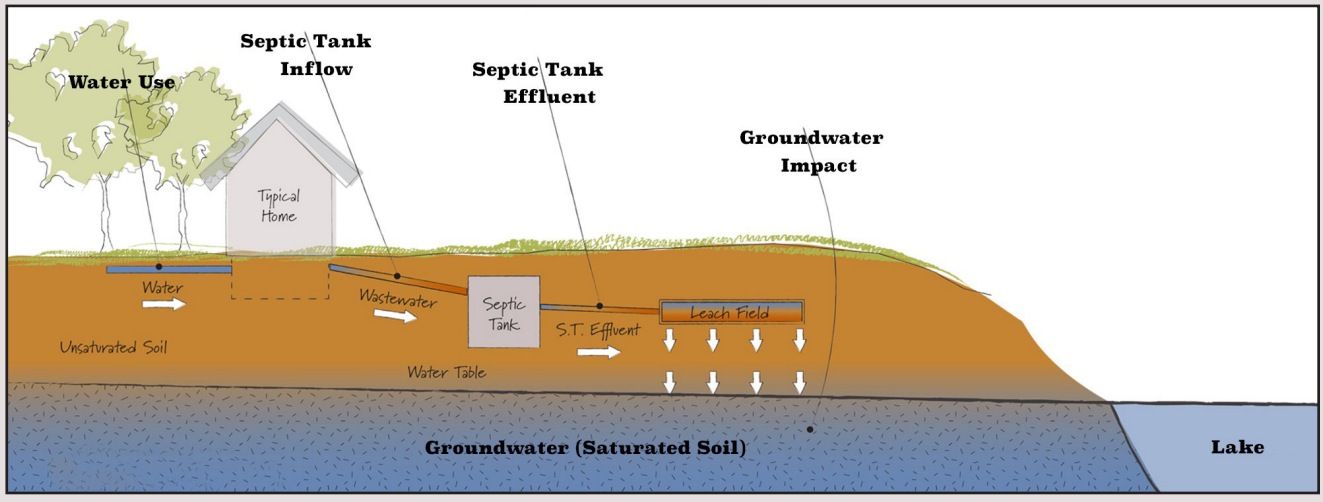
town's plumbing inspector may be able to tell you. In Oakland, that's Nathan Smart (nsmart@oaklandmaine.us, 465-2842), and in Belgrade, Hans Rasmussen (ceo@townofbelgrade.com, 495-2258).

In the event the town has no record of a septic system on your property – or if your septic system is pre-1974 – it's time to have a licensed site evaluator dig into the situation. The town's plumbing inspector can recommend one for you. Should you have to install a new septic system, funding from Maine Department of Environmental Protection's Small Community Grants Program may offset some or all of the cost. https://www.maine.gov/dep/water/grants/scgp.html

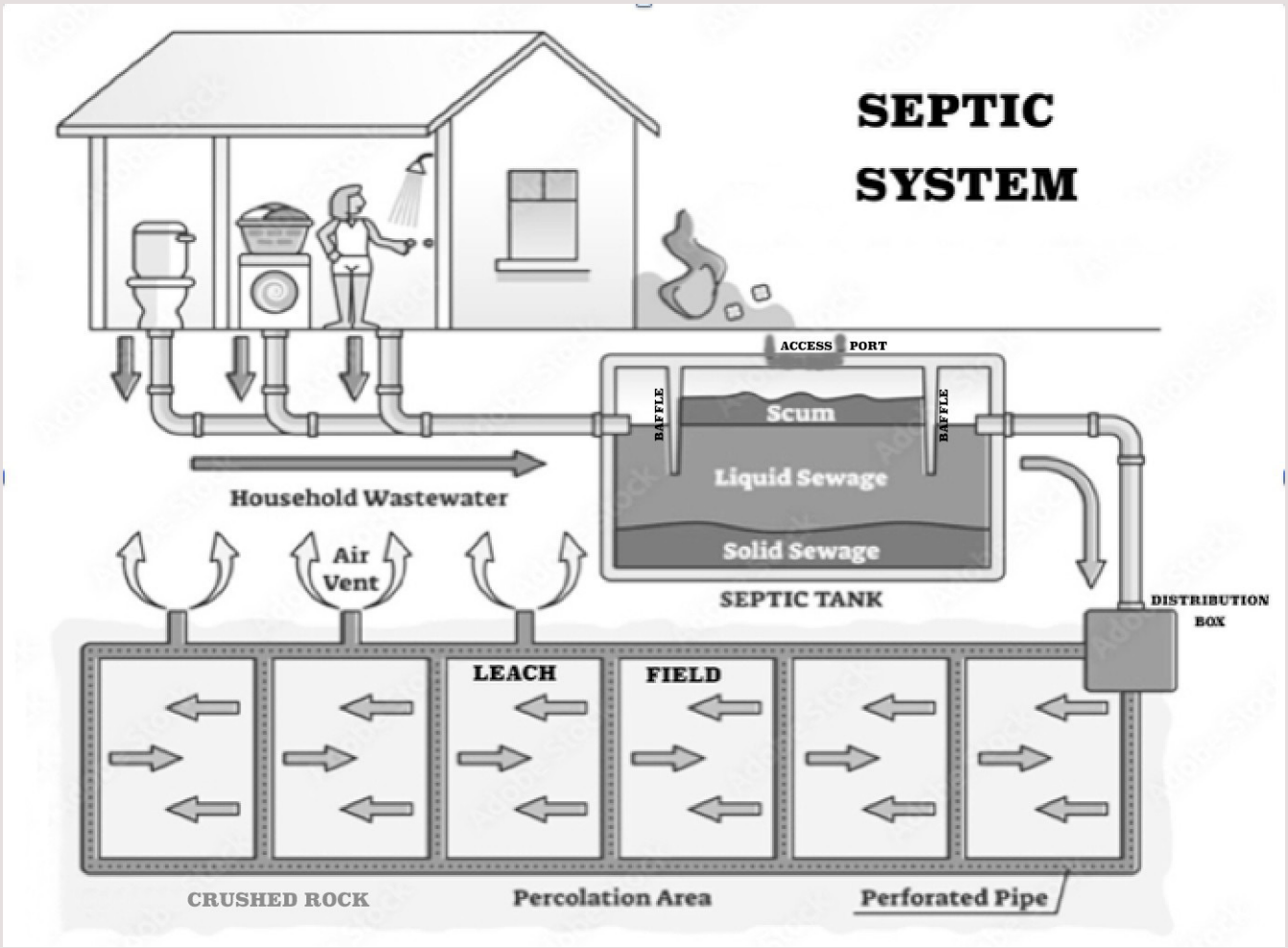
If a licensed site evaluator can't find an appropriate soil bed for the leach field that's 100 feet from the lake and lets gravity move liquid from your septic tank to the leach field, a pumped system will be needed. Although these are more expensive to install and maintain, they take contaminants further from the lake and let the site evaluator find soils better able to neutralize pathogens and nutrients. A good leach field's soils can remove almost all of the remaining nutrients through positive ion exchange and biological activity. If possible, position the field so that its surface stays relatively dry during inclement weather. At my own lakeside home, we pump several hundred feet behind and above the house to a large cleared area containing just such a field.

Groundwater, like surface water, flows down toward a lake throughout the lake's watershed, although the groundwater gradient is not as great as that of the land. This means the depth of soil between the surface and groundwater increases with distance from the lake, making the leach field deeper and hence more effective as it's placed further back from the lakeshore.

Any nutrients the leach field's soil fails to remove from septic effluent will flow with the groundwater, which moves though saturated soil at a far slower pace than surface water – normally about five to ten feet per year, depending on the type of soil, the slope, and the amount of precipitation. Placing the leach field farther from the lake helps reduce any remaining nutrients from reaching the lake because some are adsorbed on soil particles or broken down by soil microorganisms as the water moves slowly past them. See the accompanying sketch. (Disclaimer: In a normal Maine watershed, the land would rise further away from the lake.)



Below is a diagram of a complete, gravity-feed septic system. Note: the house and tank are displayed from the side, the distribution box and leach field (except the air vents) from above. The perforated pipes of the leach field lie horizontally on crushed stone and are covered by soil, with the vents sticking up into the air. There is normally one vent for each long row. The bed of soil under the pipes must be at least three feet deep before contacting bedrock or groundwater. Systems installed since the 1990s may have plastic or concrete chambers, fabric-wrapped pipes, or other proprietary devices making up their leach field equipment, some without vents. Unless that equipment is specifically intended to bear weight, nothing heavier than a lawn mower should be run across the leach field. As the saying goes, "Shield the field!"



The top of the septic tank will be lower than the lowest drain in the building. The tank is usually buried and has one or two access ports for pump-out. Current regulations require the access port(s) to extend up to the surface, but older ones may have to be dug out for pumping. Domestic septic tanks in central Maine are typically 1000-gallon concrete vessels.

Note the three levels of sewage in the tank. The bottom level is formed as human-waste solids enter the tank, get broken down by anaerobic bacteria, and eventually sink, taking much of their phosphorus with them. What settles to the bottom of the tank is known colloquially as "sludge." The entering human-waste solids comprise 25%-40% bacteria by weight, so there's a never-ending bacterial supply.

In the middle, the liquid sewage is mostly household "graywater" from showers, washing machines, etc., and human urine, which also contains some phosphorus. The liquid-sewage layer in the tank holds dissolved organic matter and tiny suspended solids from the decomposing human-waste solids. As new sewage enters the tank from the building, a like volume of liquid flows out toward the distribution box and on to the leach field. Note that as the sludge builds up from the bottom, the layer of liquid sewage gets smaller and hence the suspended solids in it become more concentrated.

Floating at the top of the septic tank, the scum layer is primarily oils, fats, and grease. A vertical baffle, sticking down into the tank near the tank's outflow, prevents scum from flowing out with liquid sewage. Trapped at the top, the scum will stay in the tank until it's pumped out.

Maintaining your septic system comes down to a few important "Do's" and "Don'ts": Pump out the septic tank often, limit the water going into the system, and be careful what you put down your drain.

The crucial "Do" is to pump out your tank regularly – and probably more often than you think necessary. For year-round homes, that's once every two years. With seasonal camps, it's every three years for those getting average use, four years for light use, two years for heavy use or if the property is a busy short-term rental. This is an inexpensive way to be sure there's always a substantial layer of liquid sewage above the sludge, which is important for leach field longevity. As a case in point, we moved into our home in 1989 and have had the septic tank pumped out every odd-numbered summer since 1991. A licensed site evaluator tested the soils of the leach field last summer and found them in good shape after 35 years of continuous use.

Keep the sludge below ⅓ the height of the tank. If you delay pump-outs, the sludge layer builds up and the liquid sewage layer has a higher concentration of suspended solids, which eventually compromises the soil's ability to drain adequately. Should the sludge build up so high that it exits the tank, the leach-field pipes and the soil will be irreparably damaged. If that happens, or if the field becomes saturated with suspended solids, effluent will pool on top of the soil, especially in wet weather. A rainstorm can wash that nutrient bomb right into the lake, a catastrophic failure needing immediate and costly remediation, including a new leach field.

I learned the hard way that you may also need to **clean out your distribution box** (d-box). I've kept our leach field clear of trees and large plants because their roots, attracted by the moisture and nutrients there, can damage the pipes. However, thousands of filamentous roots from the grass covering the field had worked their way under the lid of the concrete d- box and clogged the effluent pathways, creating enough back pressure to cause the early burnout of a septic pump. Now, I don rubber gloves and clean out the d-box every second time the tank is pumped. (If in doubt about d-box location, check your septic system plans.)

When the tank is pumped out, make sure the pumper inspects the tank for leaks and checks that the baffles are securely in place. The outlet baffle, in particular, is crucial for keeping the scum layer in the tank and out of the leach field. Immediately repair anything amiss.

One other "Do": **Use low-flow faucets, showerheads, washing machines, and toilets.** Less water is better for the system because it allows bacteria to work more effectively on human-waste solids and expedites their settling to the bottom. This results in "cleaner" liquid sewage leaving the tank and draining through the soil of your leach field. The fewer suspended solids in the liquid sewage, the longer the field will last. Sending lots of graywater and sewage into your system in a day or less can disrupt the tank's biological processes. "When in doubt, spread it out."

Here are some important "Don'ts": **Don't use a garbage disposal,** compost instead. Ground- up food can overwhelm your septic system's ability to break down organic material into sludge. Large particles from the disposal can get out to the leach field and clog perforations in the pipes. Human waste and toilet tissue are the only non-liquids that should go into your septic system. If you must use a disposal, pump your tank twice as often as otherwise recommended, put a screen in the tank outlet to contain those large particles, and be sure the screen gets cleaned each time the tank is pumped out.

Human solid waste contains all the bacteria your septic system needs to do its job, so **don't add bacteria or enzymes in the form of a commercial product** (such as Rid-X). If an additive causes the breakdown of the scum layer so that oil and grease disperse into the liquid sewage layer and exit the tank to the leach field, soils can get coated and become useless for further sewage treatment. That shortens the leach field's useful life significantly.

Don't put anything toxic down the drain. This includes all paints (including latex), solvents, drain cleaners, waxes, fuels, and other petroleum products. Ditto organic fats and grease; throw them out. As for soap, bleach, and cleaners used in your washing machine, dishwasher, etc., dispense as little as possible to get the job done, and avoid antibacterials and phosphates. Cleaning products left over from the washing cycle go down the drain and kill bacteria.

That's about it. Pump out your septic tank more often than you think you need to, limit the amount of water going into your system, and be very careful what you put down your drain. Do those three things, and your septic system should perform well for decades to come.

If there's any doubt you have a modern, full-functioning system that's keeping both pathogens and phosphorus out of our lakes, get it checked by a licensed site evaluator. Your town Code Enforcement Officer can recommend a good one.

And finally, should you need to install a new leach field, remember that placing it further from the lake will remove more contaminants. If you can, move it back! Our lakes will thank you.

7 Lakes Alliance's New Floating Classroom

Discovering the Connections Between Lake and Land

By Sally Whittington
7 Lakes Alliance Community Engagement Coordinator

7 Lakes Alliance was delighted to introduce a floating classroom to our Education and Outreach programming during summer 2024. Specially equipped with a microscope, water sampling kits, binoculars, and other equipment, this 22-foot pontoon boat allowed us to host people of all ages for educational outings. We are grateful to the donors whose generosity allowed us to launch this new educational program.

7 Lakes's environmental programming is designed to instill a deep appreciation of nature and to help create the next generation of conservationists. Last summer, more than 180 youth from the community participated in programming on the boat with Lake Scientist Matt Farragher and Community Engagement Coordinator Sally Whittington. Campers from both Belgrade Recreation's Camp Golden Pond and Camp Tracy on McGrath Pond received hands-on experience measuring parameters of lake health, studying ecosystems within the watershed, and learning why it's important to take care of the lands and waters of our Belgrade Lakes.

Some of the most rewarding parts of our educational programming are helping participants understand the harmful impact erosion has on water quality and seeing children's eyes light up when they realize that the aquatic plants they've been afraid to swim near are actually teeming with life and wonder. The floating classroom helped create these memorable situations and drove home the importance of fostering love of nature in young and old alike.

With the floating classroom, 7 Lakes was also able to host several environmental programs that gave front-row seats to important bird nesting habitats, valuable undeveloped shorelines, and real-life examples of how conserved land protects water quality. On one of these outings, our Land Conservation Director Noah Pollock highlighted properties conserved by 7 Lakes and shared key insights into why the ecosystems on those lands are vital to protect. From the boat's deck, participants could see how stormwater runoff cascaded down from the higher elevations to the shoreland zone and then into the lakes, demonstrating the importance of undeveloped land for protecting our lakes from eroding soils that can trigger algal blooms.

To register for a trip on the floating classroom or any of 7 Lakes Alliance's programs, visit www.7LakesAlliance.org/events

Matt Farragher with Camp Tracy kids last summer.

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Members' dues help fund:

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To join or renew online, please go to
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MPSLA is a 501(c)3 nonprofit organization

Our Mission is to protect the natural character, enhance the water quality, and promote the responsible use of the lakes for the benefit of ALL.

MPSLA
PO Box 576
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www.mcgrathpond-salmonlake.org

McGrath Pond & Salmon Lake Association

Annual Membership Form

For year 20_____ Name (s)_____
Preferred Mailing Address_____
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Email_____ Phone _____

☐ I would like a paper copy of the newsletter (available on MPSLA's website by default).

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Membership starts at $35 for individuals and $50 for families.

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Please indicate your contribution level:

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Total enclosed: _____ + _____ = $_____
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THANK YOU!

MPSLA is a registered 501(c)(3) nonprofit organization.

Find us on Facebook: www.facebook.com/MPSLAssoc Email address: outreach@mcgrathpond-salmonlake.org

McGrath Pond - Salmon Lake Association
PO Box 576
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Our mission is to preserve and protect the natural character, enhance the water quality, and promote the responsible use of the lakes for the benefit of all.

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