BELGRADE LAKES ASSOCIATION

To protect and improve the watershed of Great Pond and Long Pond through Preservation, Education and Action.

Winter 2021 - 2022

June 30, 2021 - A Devastating Day for our Community

A MESSAGE FROM OUR PRESIDENT

Carol Johnson, BLA President

As I write this letter, I find I am once again waiting…waiting for change. I waited for the ice to form to give rest to our lakes and for ice thick enough to bring snowmobile lights across the lake at night and ice fishing holes during the day. I waited for the days to begin lengthening - we have gained several minutes since the solstice! And yes, I am waiting for more snow…after all it is winter in Maine.

We are also waiting for relief from Covid. While the previous numbers seemed to improve, we are still experiencing many infections, hospitalizations, and loss of life. So, we wait for good news, improved vaccination rates, and better ways to combat this virus.

While your BLA awaits spring activities, we are busy working on water quality issues for both our lakes. We will continue to:

- Support the Courtesy Boat Inspector (CBI) program to provide coverage at our boat ramps from 7AM to 7PM every day from Memorial Day through Labor Day.
- Work with the Adopt-A-Shoreline program to keep eyes on the water looking for invasives.
- Fund the work of LakeSmart and Youth Conservation Corps (YCC) to assist waterfront owners in improving their property to reduce pollution.
- Coordinate activities with 7 Lakes Alliance and Colby College to continue research and monitoring activities.
- Financially support an Erosion Control Coordinator to specifically work on implementing our Watershed Surveys.
- Battle milfoil in Great Pond to ensure it does not spread throughout our lakes.
- Make plans for our Loon Preservation Project to make sure we have these lyrical birds as part of the experience of the Belgrades!

Both our lakes have completed recent watershed surveys with the Great Pond survey being the recipient of generous 319 monies to work on sites on Great Pond. This winter the Long Pond survey report will be prepared in order to apply to the Maine DEP for 319 monies for projects on that lake. These plans provide a blueprint for action for the next 10 years. Our major focus will be remediation on both lakes of identified properties: individual properties, camp roads, municipal and state-owned properties, as well as commercial locations.

Our towns also received federal funds from the American Rescue Plan Act (ARPA) of 2021 which must be spent on very specific projects. Water Quality is one of the eligible categories for use of these monies presenting an unprecedented opportunity to make significant progress on improving and protecting our lakes. We will be working with our towns to allocate portions of these funds for this goal.

So, I will be waiting patiently for the ice, the snow, longer days and, before you know it, the return of the loons to the lake. We are so fortunate to experience this special place - some of us all year long and some for the summer months. We are committed to keeping our piece of heaven ready for the next generation and the generations that follow. Thank you for supporting us, and we look forward to a very special 2022.

Carol Johnson

OUR SUMMER WITH LONG POND'S LOONS

By Blaine Horrocks, Board Member, Loon Project Volunteer

Ever since we first acquired our camp on Long Pond in 2002, we have enjoyed encountering the loons with their vivid red eyes and black/white signature plumage. And, who hasn't heard the wail of the loon during the warm summer month's nights. So, when we heard the Belgrade Lakes Association was seeking volunteers to monitor the loons under the Association's Loon Preservation Project, Nathalie and I volunteered to actively participate this past May. We thought we had a fair idea of what was in store for us. After our inaugural year with the loons of Long Pond, we have found our experience to be much more than expected and richly rewarding.

The first time I held an adult loon during the banding process. I could feel the loon's heartbeat!

The very first thing we learned was that the loons we had encountered during our years on Long Pond weren't just randomly swimming around searching for their next meal. According to the 2020 Maine Audubon Loon Survey, Long Pond was home to 31 loons. This included 6 pairs of breeding loons that typically set up their nesting site within one of the 11 definitive 'territories' amongst the coves, streams, and islands of Long Pond. These sites were our primary targets during our summer surveys. Each week, from the beginning of the nesting season in May through the end of summer season, we monitored these breeding pairs as they faced the trials and tribulations of hatching chicks and protecting/nurturing the loon chicks as they grew into fledglings and ultimately departed the pond for wintering grounds in coastal ocean waters.

Our nesting loon on our little island is perfectly protected. The chick made its way to fledging.

Within each territory, loon pairs must select a suitable nesting site. These sites typically have similar profiles. First, nesting sites must provide ready access to safe ground that is not too far from the water and also be sufficiently high enough to protect nests from rising levels of water resulting from excessive rains. Second, the nest must be in a location that minimizes the opportunity of Maine predatory wildlife (i.e., racoons, mink, weasels, etc.) from feasting on unhatched eggs. Third, desirable nesting sites must have some attribute of shrubs, small trees and/or grasses to conceal the nest from airborne predators, including eagles, crows, ravens, and gulls. Small islands can prove ideal. This past summer, we had a loon pair nest on a small island 50 yards off of our home. We even purchased a spotting scope to maximize our ability to keep tabs on this nesting pair.

There are also three artificial nests situated in Long Pond coves, two of which produced chicks this past summer. In one instance, an artificial island started to fail, leaving an egg to fall out of the nest and into the lake. Although the lost egg was not viable after being in the water too long, the structure was repaired. The loons returned to the nest and laid another egg that successfully hatched a chick. These are the sites we would visit each week for nesting activity, egg status, and chick development.

On June 10th, we heard a commotion on the small island just off our home where loons had established a nest with one egg present. Our nesting loons sounded as if they were in some form of distress as we listened to wails and cries we had not previously heard. Shortly thereafter, we sited the 'fluff of feathers' of a newly hatched chick. This was the first of six chicks successfully hatched on Long Pond. Once all chicks were hatched, we narrowed our weekly surveys to known hatch areas to track chick development.

As Crocodile Dundee warned reporter Sue Carlton, "There are a lot of nasties out there." This certainly applies to the world of loon chicks as a chick's survival is subject to the forces of nature's environment. Sadly, the number of Long Pond chicks dwindled as the summer progressed during our weekly surveys. However, three chicks did make it through the labyrinth of summer, and we have all expectations that they are now living in the coastal waters of the Atlantic Ocean for the winter until their eventual return to an inland freshwater lake to breed - hopefully here in the Belgrades.

A reconditioned artificial nest. Yours truly is on the left with Pete Kallin and Roy Lane.

INVASIVE AQUATICS PROGRAM FALL 2021

By Sharon Mann, Invasive Program Director

Adopt-a-Shoreline is for all!

Did you know the Adopt-a-Shoreline program is not just on Great Pond? If you own or visit a shoreline property in the Belgrade Lakes region, we need your help! Adopt-a-Shoreline volunteers survey their shoreline twice during the growing season. Surveys can be done via snorkel, paddle board, kayak, or even a motorboat. If you see something you've never seen before, we want to know!

Nice Save, Bonnie Jones!

This summer we were reminded that our watershed is not impervious to new threats. A local of the East Pond Serpentine, Bonnie Jones, did us all a great service by identifying a new invasive in our area. Bonnie is trained in invasive aquatic plant identification and brought a suspicious plant fragment to 7 Lakes staff where the plant was quickly identified as invasive curly-leaf pondweed. Thanks to Bonnie, we were able to catch the new invasion early which gives us a chance at keeping the infestation in check. Want to be like Bonnie? Sign up for an invasive plant workshop, and adopt your shoreline!

Bonnie Jones - Invasives Beware!

Curly-leaf pond weed

Milfoil Highlights on Great Pond

30,530 gallons of invasive variable milfoil pulled
Over half an acre of burlap laid
NO NEW milfoil areas found in our watershed
2 CBI "saves" (Variable and Eurasian Milfoil)
0.7 miles of shoreline adopted on Great Pond
2 dedicated high-schoolers volunteered weekly as "Stream Supporters" in Rome Trout Brook and Robbins Mill Stream

Please contact our Invasive Aquatics Program Manager at sharon.mann@7lakesalliance.org if you would like:

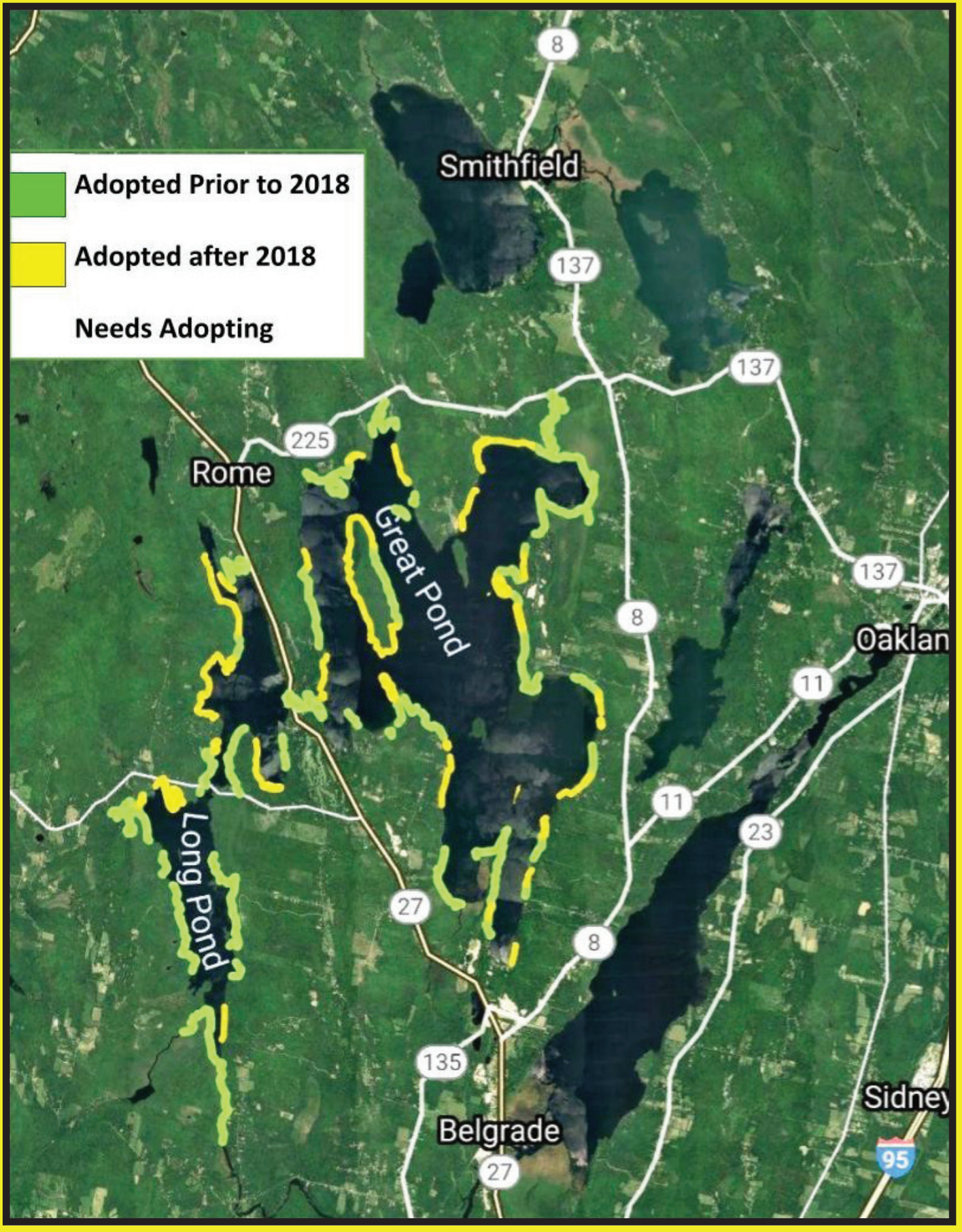
More information about invasive threats
To volunteer or "Adopt" your shoreline
To find employment opportunities for kids and grand kids that will help protect our watershed for future generations

CBI VOLUNTEER OPPORTUNITY!

Is your summer schedule flexible? Could you help keep invasive plants out of our lakes by spending a few hours at a local boat launch just a few times per season? If so, YOU could fill a critical need as a volunteer CBI! Free training provided! FT paid positions are also available.

Call (207) 495-6039 for info.

ADOPT-A-SHORELINE MAKING PROGRESS



WANTED: Adopt-a-Shoreline volunteers on East Pond, North Pond, Salmon Lake, and McGrath Pond!

LOW-SALT DIET FOR OUR LAKES?

By Mary Wicklund, LakeSmart Program Manager

Love it or hate it, winter in Maine means snow. What does this have to do with being LakeSmart? A lot! Whether it's dealing with snow or, more recently, ice during the winter months, we can't ignore the impact of salts on our waterbodies. When the ground is frozen, melting snow and ice can't infiltrate into the ground, so the runoff carries salt and other pollutants directly into our lakes. Salt is a "forever" pollutant, so reducing the use of salt is one more way to be LakeSmart.

While some of you have headed south or west for the winter, others will return to camp to enjoy winter activities, and still others are here year-round. No matter how many times you visit the lake this winter, we all can take steps to reduce the amount of salt used and still be safe! Here are some tips to manage ice on your property in a safe and lake-friendly way:

Around Camp - Walkways/Paths

- **Shovel first, then salt.** Salt is meant to be used on ice, not snow. Shoveling snow after a storm and before you salt can reduce the amount of salt you need to use.
- **Salt before a storm.** If you use salt, consider applying it preventatively 1-2 hours before a storm begins. Any salt you apply before a storm can be several times more effective than salt applied after the storm.
- **Less salt is actually better!** Whichever de-icing product you choose, always follow label directions to ensure you use the correct amount for the area you need to cover – often it's less than what you think! A single coffee mug full of salt, applied carefully, can easily be enough for a full driveway.
- **If some is good, more is NOT better.** Did you know that using too much salt can be dangerous? Excessive salt can clump together on sidewalks and become slippery— especially if it's too cold outside to melt the ice.

- **Skip the salt altogether.** If you're only dealing with a few slick spots that are likely to melt away as temperatures rise during the day, you may be better off using coarse sand or another organic material like sawdust. Just remember, this will provide traction on slippery surfaces, but it won't help melt ice.
- **Sweep it up!** After the storm, sweep up and reuse leftover de-icing materials.
- **Sand/Salt Storage.** Keep sand and salt covered or in a closed container.
- **Know where you throw!** Plan ahead for where your snow piles will be located. When possible, keep the snow in vegetated areas where melting snow is likely to be absorbed into the ground, like rain gardens or other planted areas.

Camp Roads and Driveways

Road salt is a major source of contamination to lakes in Maine. Remember, only use as much salt as you need! In addition to the tips listed above, consider the following:

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LOW-SALT DIET FOR OUR LAKES? (continued from page 6)

- **Where to put that snow?** Did you know? It is illegal to dump snow directly into fresh surface waters (including lakes) in the state of Maine. Instead, find an area of your property where the meltwater will soak in the ground and be filtered by vegetation. Avoid piling snow on your leach field as the concentrated snowmelt could damage your system.
- Keep storm drains and culverts clear. **Resist the temptation to plow snow into storm drains, catch basins,** or drainage swales. Storing snow in these areas can cause flooding and erosion.

- **How low can you go?** Some road salts don't work if it's too cold, so applying more won't do you much good. Sodium chloride, the most common and least expensive salt, stops working at 15°F. Check out this great table from the Bangor Area Stormwater Group (BASWG) that explains the characteristics of some of the most common kinds of salts and their impact on our environment.

- **Learn more about the impact of road salts.** Check out the webinar "Help Put Our Lakes on a Low-Salt Diet this Winter" at https://nhlakes.org/explore-lakes-webinars/

As we wrap up 2021,
I want to extend my gratitude to each of you for your good humor and grace as we navigated yet another unpredictable season. Thank you for your continued dedication to the protection of the lakes of the Belgrade region and to the LakeSmart program. Take care, stay safe, have a wonderful winter, and see you in 2022!

BASWG
BANGOR AREA STORMWATER GROUP

SALT FACTS

NaCl (sodium chloride)

- Most common road salt
- Significantly cheaper than other options
- Effective to 15°F

$CaCl_2$ (calcium chloride)

- More effective than NaCl
- Melts ice very quickly, down to -25°F
- Can be blended with other salts to use as an icebreaker

KCl (potassium chloride)

- Powerful fertilizer - may cause unwanted plant growth or algal blooms
- comparatively expensive but nontoxic to animals
- Frequently mixed with other salts
- Effective to 25°F

$MgCl_2$ (magnesium chloride)

- Arguably least environmentally damaging chloride, but may cause damage to plants or water bodies over prolonged periods
- Less cost effective - need to apply more to be effective
- Relatively nontoxic
- Effective to -12°F, acts quickly

Sand/Gravel

- Inexpensive
- Does not melt ice, only increases traction
- Contains phosphorus, which may cause algal bloom
- Accumulates over time and does not disapper at end of season

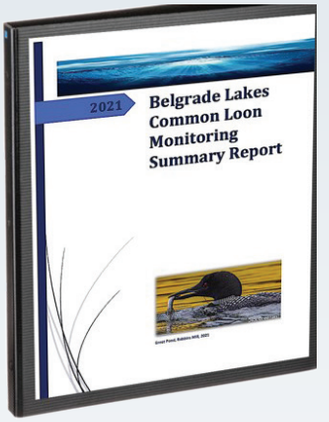
Organic compounds

- Nontoxic
- Relatively untested environmental impacts
- May attract animals to road or cause roads to smell
- Frequently combined with road salts to reduce "bounce rate" (amount of wasted material)

LOON PROJECT CONTINUES TO GROW

by Dick Greenan, Chairman, BLA Loon Preservation Project

Thanks to Loon Consultant, Lee Attix (Loon Conservation Associates), the results of Belgrade Lakes Association's 3rd year of the 5 year Loon Project is now available on the BLA website at BLAmaine.org. See the 2021 Summary Report.



Summary Report

The bottom line is that we had a total of 23 territorial pairs between our two Great and Long Ponds and documented 13 nesting pairs out of those 23 territories. Out of the 13 nesting pairs, we had 10 successful nests with 14 chicks hatched for a total of eight that made it to this fall fly off, an improvement over 2020!

For the first year since the study began in 2019, Great Pond produced more chicks than their neighbors on Long Pond. In 2021, Great Pond loons fledged five chicks versus Long Pond's three. The increase was attributable to a modest rebound in the number of nesting pairs.

2021 Long Pond family has an apparent alpha chick!

So, in summary, the 2021 overall productivity was 0.35 CH/TP (Chick per Territorial Pair) which remains low and well below the established and recognized sustainable population threshold of 0.48 CH/TP. In 2019, we ran another 0.35 and in 2020, we experienced a real dismal 0.17, so as you can see since the beginning of our project, no single year comes even close to the 0.48 CH/TP threshold, hence our project. While these productivity numbers are concerning, multi-year studies, typically no less than five years in duration, are required to adequately assess the population status.

Three of four adult loons just banded in 2020 did not return or they lost their territory to other loons. This negatively affected productivity in two of the three territories these individuals previously occupied in Beaver Cove, Long Pond and Ram Island, and Great Pond. The loss of this "experienced" pair in Long Pond's Beaver Cove was very unsettling as this territory and artificial nest has proven itself over the past several years, but that's Mother Nature for you! She has her own plans!

Board member/Raffle Czar Andy Cook, daughter and grandkids are on their first loon survey at Beaver Cove, Long Pond.

A pair of nesting loons occupied the new artificial raft in Lynch Cove, Long Pond, for the second consecutive year and hatched two chicks, again! Prior to 2020, there were no reports of successful nesting in Lynch Cove for at least a decade due to continued mammal predation, hence the installation of one of our artificial floating nests.

Based on the research and our very own findings from the first three years of the project, artificial nest rafts have been highly effective in the Belgrades. When loons do use them, they have successfully hatched a chick(s) every time (100%), although the chicks have not always survived to fledge (> 6 wks.). Unfortunately, despite the presence of our six artificial nests, their usage or occupation rates are only 33% with only two of six rafts used in 2021. Not quite a Holiday Inn Express! Over time, it is reasonable to expect an occupancy rate to increase to 50% or greater (that is unless the nest has been taken over by turtles, muskrats or ducks!). This will require close monitoring of nesting behaviors and tweaking of nest raft placement, design, etc. We continue to evaluate each territory for predation and a potential raft which could increase the nesting success rates over time.

Loon family use their artificial nest in Lynch Cove, Long Pond.

Overall nesting conditions were favorable in the past few years as water levels during the June/July breeding period remained fairly consistent. Fortunately, we didn't lose any nests, artificial or

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LOON PROJECT (continued from page 8)

otherwise, due to flooding which is often a cause of loon nest failures. During our monitoring surveys in this period, we observed large gatherings of loons in open water and not in territory. This may explain the lack of nesting and the corresponding drop in overall productivity? Were our loons just being overly sociable this past summer and forgot about the hanky panky side of things? There is no known apparent cause for their behavior, so the best thing that we can do is to just stay out of their way!

Great Pond artificial nest was taken over by a painted turtle and then a family of muskrats!

Human disturbance certainly doesn't help nesting circumstances, as you can well imagine; so education is a necessary part of the puzzle that we are addressing more and more with reports such as this. We presently monitor (trail cameras) one nest on Long Pond. As circumstances and funding allow, we would like to employ more cameras to help discover the causes of nest disturbance and failure. We don't believe that there is willful harassment in any case, just inquisitive folks that might not be as aware of their impact on the loon nest environment as they could be.

Dick Greenan is with two new 2021 artificial nests that are ready for Great Pond deployment.

This 2020 Long Pond trail camera captured human disturbance. The nesting loon was flushed by their presence, but it did return.

One significant component of our annual loon surveys is the capture and banding of loons. There are long-established tactics for night capture of adults with chicks. Banding allows individual identification and tracking of movements and survival over time. Both parents and chicks are then carefully released and observed until we can be assured of their re-bonding and safety.

In 2021, we were successful in capturing and banding ten adult loons and one chick that was large enough to qualify for the program. This compares to 2020 where just six adults and 1 chick were able to be banded.

We are all well aware that loons are recognized as a key indicator of aquatic integrity (ie. water quality!) for lakes. The Loon Preservation Project provides an opportunity to confirm the current population status, identify major threats, and create long-term, sustainable conservation solutions that are ultimately designed to support the population.

Without your continued support, we would no longer have the means to protect and preserve these important resources we have here in the Belgrade Lakes. Thank you!

New Board Member and Loon Volunteer, Blaine Horrock, is holding an adult loon while Lee Attix (L) and Lucas, from BioDiversity Institute, record vitals and place two bands on each leg.

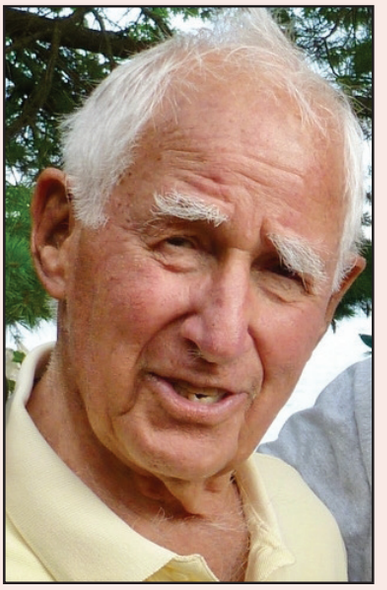
Which one is the female (typically the male has the larger head – no pun intended!)?

A 2021 one-week old Long Pond chick was hidden under a dock by its mother while its father dealt with an intruding adult loon.

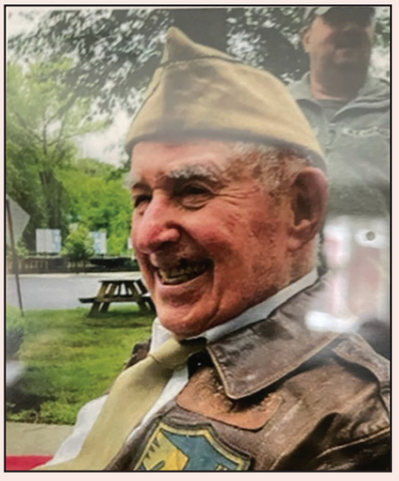
ONE OF A KIND, BILL WITKIN TURNS 100

by Maggie Shannon

Do you see that fellow deep in conversation with friends over there, the one with the big smile and a twinkle in his eye? That's Bill Witkin. He and his wife, Joan, own a camp on the south end of Hoyt Island. He doesn't look it, but he just turned 100 in December. Because this generous, warm-hearted man has worked so diligently with the Belgrade Lakes Association for over 40 years to protect and preserve Great and Long Ponds, we wish to honor him at this opportune moment.



William I. Witkin was born in Manhattan and grew up on its upper West Side. Although his family was comfortably well off, like others of his generation Bill was shaped by the Great Depression. His father, Isaac, a commodities trader, chocolate manufacturer, merchant, and industry leader, founded the New York Cocoa Exchange in 1925, and his own company, the General Cocoa Company, 2 years later. As the son of immigrants and a self-made man, Isaac was dedicated to helping others less fortunate than himself and passed his commitment to philanthropy on to his sons, because "It was the right thing to do."



Bill graduated from Exeter Academy in New Hampshire and then attended the University of North Carolina in Chapel Hill. Midway through his junior year, the Japanese attacked Pearl Harbor, so he completed his undergraduate work in 3 years and joined the United States Air Force. (It was the right thing to do.) He trained to become a pilot and flew B-24 bombers out of a base in Italy on missions to destroy munitions factories and supply centers in Germany. Returning safely from the war, he earned his MBA from Harvard and went into business. He later joined the General Cocoa Company where he served as an executive until his retirement. Throughout his life, from high school on, he has made a practice of giving back. As a dedicated philanthropist, he has been a serious fundraiser for educational institutions, youth betterment programs, and environmental conservation.

Bill met his wife Joan at a cocktail party in New York City on an icy winter's day. Over chips and guacamole, Bill told her it had been an unusual day for him. He had driven to Connecticut to visit his family's home that morning. While on a solitary walk, he had chanced to see a man and his dog marooned on an ice floe out on the lake. Luckily, he found a boathouse, commandeered its boat, and was able to deliver both man and beast safely to shore. Joan did have a date at the party that evening, but Bill – buoyed perhaps by the success of his daring rescue and perhaps not too strongly discouraged by Joan – accompanied Joan and her date to dinner and a movie after the party – thus topping off a rare event with something even better – a chance encounter that bloomed into a felicitous 63-year marriage.

The Witkin's path to Belgrade Lakes began with summer camp – a route common to many summer residents. As a boy, Bill spent summers on Lake Androscoggin at a boys camp in Wayne. Highly rated since its 1907 founding, Camp Androscoggin welcomes 275 boys each summer to a robust program of trips, sports, art, crafts, music, and drama. Bill's mother and aunt visited him at camp each summer and enjoyed vacationing nearby. They quickly located Great Pond and homed in on Jamaica Point. Decades later when Bill wanted to revisit his old haunts, he and Joan stayed with Betty Grant at Woodland Camps in the summer of 1980. On a boat trip around Great Pond, she took them past a historic camp nestled behind the sandy crescent beach at Hoyt's south end. "It happens to be for sale," Betty

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2021 BLA MEMBER RECEPTION AND ANNUAL MEETING

The 2021 BLA Member Reception and Annual Meeting was held at the beautiful Belgrade Lakes Golf Club on Sunday, Aug. 8th. Many thanks to our sponsor, Golden Pond Wealth Management, and to the Golf Club.

BLA members packed the tent.

Fund Raising Success!

The Alan Charles YCC Challenge raised over $40,000. Many thanks to the Charles family, to Bill and Joan Alfond, and to John and Flor Atkinson for their matching grant of $15,000.

New Board Member Blaine Horrock

New Board Member Louise Hogan

New Board Member Sunil Thakor

Peter McManus was remembered, and Matthew McManus accepted the BLA's thanks on behalf of his family.

Long-time BLA Board Member, Maggie Shannon, was honored for her many years of incomparable service.

Departing board member, Bill Shontell, was also thanked for his service.

Marcel Schnee was awarded the President's Paddle for his outstanding service to the BLA.

Lee Attix, loon expert extraodinaire, gave a presentation on our Loon Preservation Project.

Artificial nests work.

MICROBURST!

June 30th, 2021, is a date that many of us will remember forever. As you likely already know, a powerful microburst struck the Belgrades on that day with its main force battering homes and property along the eastern shore of Long Pond in the region of Belgrade Lakes Village. During wind gusts up to 90 mph (equivalent to a Category I hurricane) uprooted trees crashed through houses and garages; roofs were peeled off of buildings; decks and sheds and docks were lifted out of place by huge balls of roots as massive trees were uprooted; vehicles were crushed; power was lost to many homes and camps; and Hwy 27 through the Village was closed for hours by downed trees, debris, and dangerous power lines.


Budweiser
ICE
ICE

In Memoriam - Stefanie Rothschild

Stefanie Rothschild and Oscar

Stefanie Rothschild, a BLA member from Cabin John, Maryland, had just returned from shopping and had backed up her SUV to the family camp on the Pinehurst Loop to unload groceries when the winds struck. She decided to remain in her vehicle until the weather settled down. It was then that a huge pine tree crashed down onto her car. Local rescuers responded immediately and Stefanie had to be taken to Portland where, surrounded by loved ones, she passed away the next day. Stefanie is survived by her husband, Gregg Rothschild, their son Dylan, their daughters Molly and Carly, her parents Herb and Ellen Herscowitz, and many others.

The BLA wishes to extend heartfelt condolences to the Rothschild family and all who have been affected by this unexpected tragedy.

Belgrade Lakes Association
Incorporated

BELGRADE LAKES, MAINE

1952

THE CODE OF THE BELGRADE LAKES

1. Throw nothing into the water or onto the shores of these lakes which will endanger a barefoot swimmer. Never throw a bottle, tin can, or debris into the water or onto the shore.
2. When in a motor boat or outboard keep at least 100 yards away from swimmers, sailboats, canoeists, and people fishing.
3. Leave all campsites better and cleaner than when entered.
4. Keep your boat well outside coves and beaches of occupied private property, especially those off which floats and diving towers have been moored.
5. When fishing unusually early or late, remember that you may disturb those asleep in lakeside cabins.
6. Ask permission before landing at docks or on shore line which is obviously private ground.
7. When erecting new buildings or developing shoreline, keep changes as inconspicuous as possible, and in harmony with their surroundings.
8. When cutting timber, do not strip the shoreline.
9. Do not use mechanical amplification systems.

YOUTH CONSERVATION CORPS: MORE BMPS!

By 7 Lakes Alliance staff

A pea-soup green algal bloom on North Pond in the summer of 2021 was a stark reminder that we must do all we can to keep dirt, and the algae-fueling phosphorus it carries, out of the Belgrade Lakes. Indeed, in early 2021, the science-based collaborative Great Pond Watershed Management Plan confirmed the critical need to control erosion and reverse this troubling trend. The health of our lakes, communities, and economy is at stake.

YCC Crew members: Jaxon Roan, Frankie Reese, Alex Pelotte, Isaiah Gagne-Sengendo

Fortunately, the Youth Conservation Corps, over a quarter of a century strong, provides an effective and affordable way for landowners to keep dirt out of our waters. This year, despite a challenging hiring environment and continuing pandemic challenges, 7 Lakes Alliance operated a robust YCC program. Led by experienced team leader, Tyler Pellerin, YCC crews installed nearly 80 best management practices (BMPs). These simple and effective projects keep dirt and phosphorus out of our lakes. YCC crews planted buffer gardens, spread erosion control mulch, and installed stone (rip rap) to reinforce fragile shorelines.

In 2022, 7 Lakes will continue to integrate YCC projects with LakeSmart and also Clean Water Act Section 319 projects for maximum efficiency and effectiveness. 7 Lakes will also continue to participate in a Maine Department of Environmental Protection pilot program to keep YCC permit fees low. Finally, the YCC program continues to provide jobs, skills, a conservation ethic, and a role in protecting water quality in our lakes! The YCC works watershed-wide with generous support from BLA, East Pond Association, North Pond Association, McGrath Pond- Salmon Lake Association, surrounding towns, and private donors. Contact 7 Lakes at any time to discuss or schedule YCC, LakeSmart, and/or Section 319 projects. Call (207) 495-6039 or email at www.7lakesalliance.org.

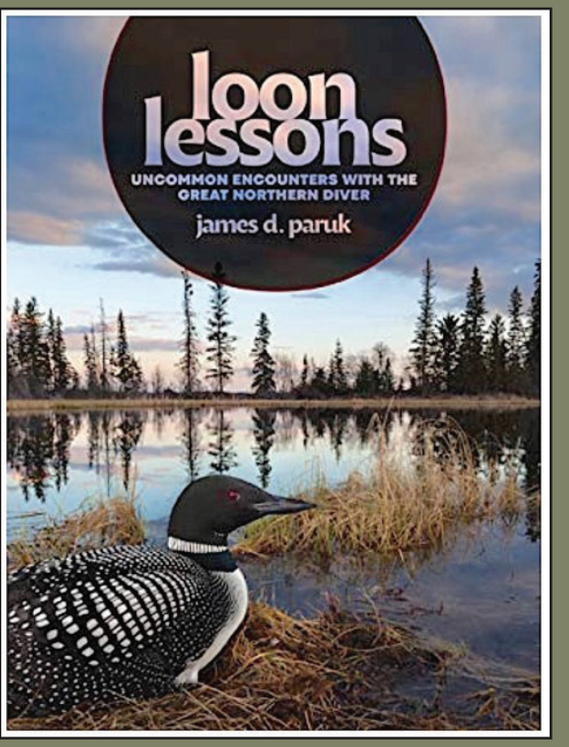
7 Lakes YCC crew members for 2021

Installing erosion control mulch on path to the lake

"LOON LESSONS"

A new book, entitled Loon Lessons, by New Hampshire's James D. Paruk, is an excellent and entertaining work for anyone who appreciates these iconic birds. Paruk has observed and compared loons from Washington and Saskatchewan to the coasts of California and Louisiana, and the mountain lakes in Maine. Drawing on his extensive experience, a wealth of data, and well-established scientific principles, he considers every aspect of the loon, from its plumage and anatomy to its breeding, migration, and wintering strategies. Here, in the first detailed scientific account of the common loon in more than thirty years, Paruk describes its biology in an accessible and entertaining style that affords a deeper understanding of this beautiful and mysterious bird's natural history and annual life cycle.

You will want his book in your own library or up at the lake, and we cannot think of a better gift for the "Loon Lovers" in your family than this most informative and entertaining book. It's available on Amazon or at your local bookstore, Oliver and Friends Bookstore, in Belgrade Lakes.



CAMP ROADS: HIGHWAYS FOR POLLUTION

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Most folks who live on gravel roads, where they have to do their own maintenance, think about the cost of filling in pot holes and washouts. They think about the cost of new sand or gravel to fix the road, but not where the old sand and gravel went. Some believe that the soil collects in the ditches. But once in a ditch, it moves straight on to the nearest water: a lake, stream, river, or bay. In fact, gravel roads and associated ditches are the largest source of pollution in many Maine lakes. Just think of the miles of camp roads (and ditches) that surround our lakes.

In statewide phone surveys, many people did not consider soil a serious pollutant. It is natural, so how can it be bad?

Every year, rainstorms and snowmelt wash away tons of gravel, sand, and soil. We have all seen a stream in our neighborhood turn cloudy or brown after a rainstorm. This cloudy water make it difficult for fish to see and feed properly. The particles act as sandpaper against a fish's gills, causing damage and making breathing difficult.

Many fish and aquatic insects lay their eggs in gravel beds. The sediments that are deposited in the stream cover up these areas, sometimes even entombing young fish and eggs.

To add to all these problems, eroded soil particles are more than just soil particles. They carry hitchhiking pollutants such as nutrients, oil, fertilizers, pesticides, and bacteria.

To protect local water quality, a roadway needs to be designed and maintained to shed water from its surface into nearby wooded areas, not to the lake. Properly crowning the road or installing diversions will direct water away from the road surface. Road ditches and culvert crossings also need to be properly stabilized to prevent soil erosion. Finally, dust control on the road surface is essential during the dry summer months to prevent soil particles from being transported into nearby water.

These practices will also reduce the amount of money that will need to be spent each year to maintain the road because there will be less erosion. They will make a smoother travel surface, too. The same practices will benefit our waters, our pocketbooks, and our car alignments.

To reduce soil erosion and pollution from unpaved roads, the DEP has a number of resources: manuals on how to form a camp road association, how to maintain a camp road, and training programs for contractors, landscapes, and road associations.

For more information about camp road maintenance, visit: **http://www.maine.gov/dep/land/watershed/camp/road**.

BOATING ETIQUETTE 101

by **Commodore Matti Bradley**

Greetings fellow lake-lovers! Once again, I thank the BLA for allowing a corner in their newsletter for the sailing community. Today's lecture subject is boating etiquette. In particular, the inevitable interaction between our motorized brothers and sisters and those under sail.

Sailboats sometimes turn quickly and unexpectedly (sometimes the wind gods give us no choice). If you are passing a sailboat in a constricted area like a channel or between islands, anticipate the sailor may need to turn quickly, so give them a little extra room. Sailboats may not be as maneuverable as you are and may goof it up on the first try and need to get up speed and try again! "Stuff" happens!

Sailboats are often moving faster than you think. When crossing paths, sometimes crossing behind them is the better option. They also are often not as maneuverable as the motorized folks and have deeper drafts. Please do not "trap" them in hazard areas or close to shore. It may be safe for the 1 foot under a motorboat, but it can be a problem for the 3 feet under the sailboat.

I know everyone is going at headway speed within 200 feet of any shoreline or island per the Maine boating regulations. From a courtesy standpoint, consider a sailboat the same way. Excessive wake can dump the wind out of the sails and render them unable to maintain forward speed.

Lastly, wave! The good kind. It's awesome that we can all share this special place together. When doing what we love on the water in whatever mode of transport we choose, give a little wave to your neighboring vessel and smile. There's nothing to scowl about when messing about on the water together in the summer, right? Have a wonderful winter everyone.

Dick Greenan enjoys a moment on Lazy Daze.

GREAT POND AND LONG POND WATER QUALITY UPDATE

By Dr. Danielle Wain, Lake Science Director, 7 Lakes Alliance

Since 2015, the 7 Lakes Alliance and Colby College have collected Secchi disk readings (water clarity) and water samples for total phosphorus (TP) analysis on Great Pond at Maine Department of Environmental Protection (DEP) Stations 1 and 2 and Long Pond Stations 1 and 2, the deepest parts of the lakes (Figure 1).

From this monitoring, we can see how important water quality metrics are, such as the average TP and Secchi disk transparency (SDT), and their change from year to year. These metrics are one way of classifying the trophic state of the lakes which essentially tells us if we have good (oligotrophic), medium (mesotrophic), or bad (eutrophic) water quality. The State of Maine has defined thresholds for water quality based on SDT and TP. An average SDT reading between 13 ft (4 m) and 26 ft (8 m) is defined as medium water quality, > 26 ft (8 m) is good and < 13 ft (4 m) is bad). An average TP value between 4.5 and 20 ppb is defined as medium water quality (< 4.5 ppb is good and > 20 ppb is bad).

The 2021 average clarity for Great Pond and Lower Long Pond was 20 ft (6.0 m), right in the middle of the medium water quality range (Table 1). Upper Long Pond was slightly better at 21 ft (6.3 m). The average phosphorus in all three lakes was between 8 and 10 ppb, also in the medium water quality range, with Great Pond being slightly higher than Long Pond. For comparison, the average phosphorus for 2021 in North Pond, where there was a bloom this summer, was 17 ppb, almost twice that.

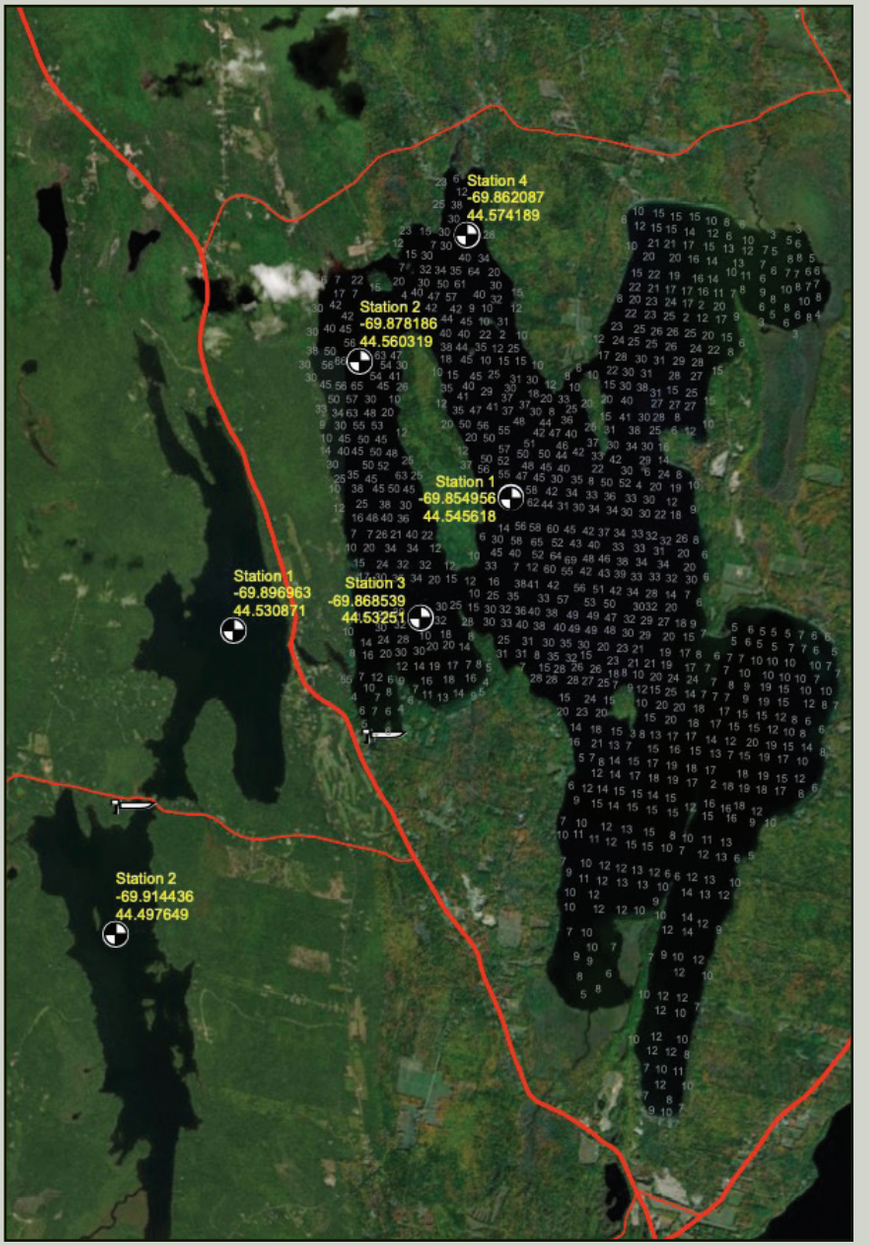


Figure 1: Map of Great Pond and Long Pond denotes the Maine DEP sampling stations (www.lakesofmaine.org).

Table 1: 2021 Great Pond and Long Pond Seasonal Averages and Trophic Status

	ME DEP Trophic Status Indicators			Great Pond Average (Range)	Long Pond - Upper Average (Range)	Long Pond - Lower Average (Range)
	Oligo-trophic	Meso-trophic	Eu-trophic			
Water Clarity (meters)	> 8	4 - 8	< 4	6.0 (4.7 - 7.1)	6.3 (4.7 - 7.6)	6.0 (5.0 - 7.5)
Total Phosphorus (ppb)	< 4.5	4.5 - 20	> 20	10 (6 - 12)	9 (4 - 13)	8 (5 - 11)

(continued on page 19)

WATER QUALITY (continued from page 18)

How does this compare to previous years? Since we started more intensive data collection in 2015, Great Pond and Long Pond have fluctuated, but, then remained in the medium (mesotrophic) range (Figure 2). While 2021 was the same or better than 2020, the past four years have had water clarity 1-5 ft less than 2015 – 2017.

Once a water body tips into the bad/eutrophic range, it often will not return to better conditions without significant remediation work. BLA, 7 Lakes Alliance, and other partners are keeping a close eye on the lakes to ensure they are not moving in the wrong direction for water quality. The Great Pond Watershed Based Management Plan, completed in early 2021, will provide the framework for protecting the lake from decline. An update to the Long Pond Watershed Based Management Plan is about to begin as well.

One of the purposes of the Watershed Based Management Plans is to identify the primary causes of phosphorus pollution in the lake, how best to address them, to reduce the likelihood of algal blooms, and to improve water clarity. Phosphorus is a key nutrient for algal growth which is why we monitor it closely. To understand more clearly how much phosphorus is coming into the lakes, in 2021 we started a stream sampling program throughout the Belgrade watershed. We started with volunteers collecting manual samples during rain storms, but thanks to a generous donor, the 7 Lakes Alliance is excited to have five autosamplers (Figure 3) to collect samples from streams as often as we would like (and no volunteer needs to go out in the dark and rain). As most of our rain is in the spring, we are already coming up with plans for deployment – if you live on a stream that enters Great or Long Pond and would be willing to host one of our autosamplers for a week or two in the spring, please get in touch at danielle.wain@7lakesalliance.org!

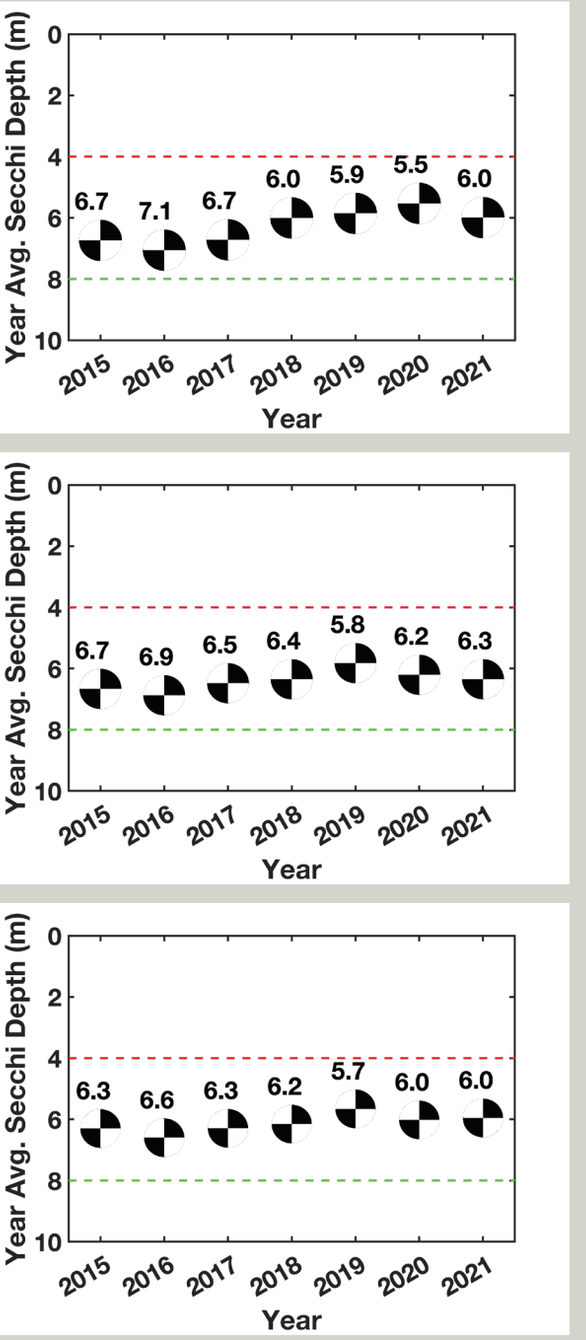


Figure 2: Average SDT for each year. The red line indicates the "bad" water quality threshold, while the green line indicates the "good" water quality threshold.

Colby Intern, Erin Coughlin, is setting up an autosampler on Great Meadow Stream.

2021 RAFFLE GOOD NEWS FOR ALL

by Andy Cook, Raffle Czar

As usual, in the 2021 BLA raffle everyone was a winner.

First and foremost we raised $38,000 for our lakes. This was close to a record (2018- $39,345) and the best we have ever done without a pontoon boat. This money greatly helps the Belgrade Lakes Association support the lake water quality funding for courtesy boat inspectors, the youth conservation corps, milfoil clean up, lake water quality testing and analysis, required lake and watershed surveys, and public awareness.

The good news is we seem to be holding our own in terms of water quality. Great Pond and Long Pond have not degraded this year. So this is great! We are not where we were in 1900, but at least for now we are stopping the degradation. So we are all winning.

At the same time our many donors have won by being part of a great cause. These include Hamlin's Marine (whom we love – try them), Hammond Lumber (whom we also love), and the wonderful people at Lynch Landscaping, the Farmers Market, Lowes, Day's Store, Lakepoint Real Estate, the Rizzo's, and the Village Inn. They have all stood by us over the years and again made this year's raffle possible.

Our winners are wonderful and exceptional people, each with a special story. First the bonus raffle. William Brydges, a vacation visitor from Virginia, bought several raffle books on the Saturday before the drawing and won the Sunfish on Sunday. He and his family were all smiles as they took it home at the end of their Long Pond vacation. Alex McManus from New Jersey won the Lakepoint Realty standup paddle Board, and again more smiles. Michael Karetzm won the Rizzo's four rounds of golf and laughed and laughed. He is not a golfer. Bummer, a great prize was never used. And John Albertini won the dinner for four at the Village Inn, and I am sure he and his family had a wonderful meal.

Now for the main event. Alix Alter won the Hamlin's Alumacraft V16 with the Yamaha F20 motor and a trailer. Alix and her husband Bill generously regifted the boat and gear to the Travis Mills Foundation. Steve Gavett won the Hammonds boat lift. It ended up at a more northern lake and is much appreciated. Nancy Vailas won the dock sections and promptly regifted those to the 7 Lakes Alliance docks-to-doorways effort! Thank you, Nancy, and the Sutton Family. Nancy Blomstrom won the Lynch landscaping and was considering where to use that excellent work. Steve Roy picked up the Farmers Market gift basket on the spot and loved it (thank you Alice VanDerwerken and the entire Farmers market team. Mitzi Cushing won the Lowe's chainsaw. I hand delivered it, and I'll bet after the wind storm it was put to good use. John and Ellen Gallin won the Days Summer Picnic basket, and I am sure they had a wonderful sirloin strip steak dinner for 6!

Alix and husband Bill spread the joy by regifting Hamlin's Alumacraft V16 boat and gear to the Travis Mills Foundation.

2021 RAFFLE GOOD NEWS FOR ALL (continued from page 20)

We had many volunteer helpers. They helped at the raffle tables throughout the summer and were winners, too. Despite the pandemic we all had a wonderful opportunity to renew acquaintances and enjoy the company of the many who value and enjoy our lakes. Special recognition goes to Carol Johnson for most hours on table duty, Lynn Matson for helping to coordinate our wonderful prize donations, George Atkinson who coordinated all our table volunteers, John Biddiscomber and Abigail Groton (member table volunteers), the Board members who helped out and, of course, the many, many BLA members who purchased books and books of raffle tickets, stopped by to talk, and renewed their BLA memberships. You all made all the difference. Our lakes are better for it!

We look forward to a fun 2022. Hopefully, with everyone vaccinated (or nearly so), we will have another wonderful summer in the Belgrade Lakes, another great raffle, and another occasion where we can all be winners in helping improve Great Pond and Long Pond water quality.

$ REBATE CONTINUES $

Save Money When You Protect Your Lake!

YOU'LL EARN MONEY BACK ON BUFFER PLANTS AND LANDSCAPING, AS WELL AS SEPTIC PUMP-OUTS AND SEPTIC SYSTEM INSPECTIONS!

Stable shorelines and stopping stormwater runoff are so vital to lake health that BLA will reimburse Great and Long Pond shorefront homeowners 10% of their investment when they build or reinforce their vegetated buffer strip, and/or complete a septic tank or cistern pump-out, and/or septic inspection this year.

This offer is good for buffer work or purchase and completed septic pump-out and/or septic system inspection in 2022. The Rebate limit is $500.
Proof of completed work required.

Get your REBATE by mailing your receipt, showing plant materials purchased and itemizing completed work to:

BLA REBATE
PO Box 551
Belgrade Lakes, ME 04918

Be sure to include your USPS address so we can send you your money!
Include phone and email too, please.

Philip H. Mulville

In Memoriam - Philip H. Mulville

Philip H. Mulville, 52, passed away peacefully on Saturday, Jan. 1, 2022, at Gray Birch in Augusta after a long illness. He was born Feb. 28, 1969, in Sharon, CT, the son of John and Anne (Bradley) Mulville. Philip is survived by his mother, Anne B. Mulville; brother, Clayton H. Mulville. He was predeceased by his brother, Matthew W. Mulville; and father, John D. Mullville.

He was a graduate of the University of Connecticut and was employed by the Center for All Seasons in Belgrade. Phil served a stint on the BLA Board of Directors and was known as a very kind, gentle, and thoughtful person.

The BLA extends its condolences to the entire Mulville family.

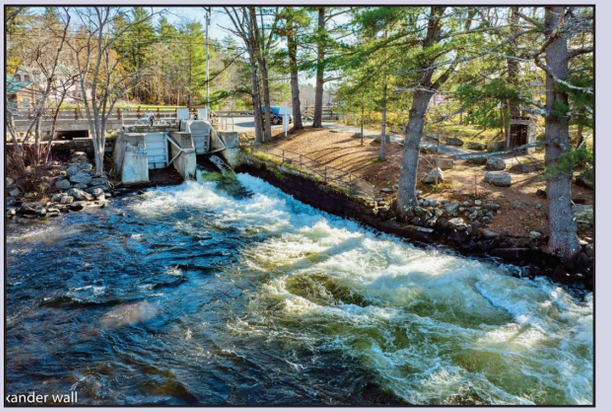
Inter-lakes Dams Report

by Dick Greenan

As I write this update, all of our gates continue to be some-what open due to continued precipitation. Where was this rain earlier this summer when we could have used it? As it turned out, the long-term forecasts were amiss, and we ended up having the necessary rain fall for the second half of the summer.

Actually, with all of this Yankee humidity, we had to open all of the gates to be on track with our Fall Drawdown and Winter Storage schedule: (which can be found at: https://belgradelakesassociation.org/Portals/0/21_22%20Fall%20Drawdown%20Winter%20Storage.pdf). The schedule calls for Great Pond and Long Pond each to be drawn down to 18-24" below full pond and for Salmon Lake to be drawn down to 12" below full pond, weather permitting, of course.

The Completed Wings Mill Dam



Mid-November Village Dam drone photo

The Wings Mill Dam Remediation project went according to plan and was completed within budget, particularly in light of Covid-19 pricing - a tribute to local contractor, Waterville based Kavestone, LLC Construction Company. It was quite an engineering feat to successfully complete restoration without losing any of our precious water in the process, but they did it. The persistent leaking of this 100 year old dam is finally history! With several thousand dollars of stainless steel hardware and pressure treated hemlock, it should easily serve another hundred years this time around! And we can now state, unequivocally, that the leakage at the Wings Mill Dam has been 95+% remediated. We still have the Wings Mill driveway to rebuild, but that is budgeted and scheduled for this coming Spring – following our mud season, of course!

Winter at the Wings Mill Dam

Committee Members L-R, Tom Bennett, Jack Schultz and former Chairman, Doug McCafferty

Well, today as you read this column, your volunteers on the Dams Committee continue to maintain the water levels, but, unfortunately, today it's with a snow shovel!

We've been talking a lot about Long Pond's Wings Mill Dam and Great Pond's Village Dam, but isn't there a dam on Salmon/McGrath? The answer is yes. They will be getting an automated data logger this year which will show Salmon's daily water levels without physically having to daily measure – including in the winter!

Thank you all for your continued support and enjoy your winter – if that's possible!!! It's supposed to be another classic, but it's always beautiful here in the Belgrades.

ONE OF A KIND (continued from page 10)

allowed. "Would you like to see it?" Curious, they tied up at the dock and hopped out. After visiting the lodge, the bunk house, and hiking the wooded acres beyond, Joan was smitten. By the time the pair arrived back home in Chappaqua, NY, they knew they needed to consult Edward, Peter, and Jane – their three children – to win approval for the purchase.

Bill and Joan enjoying a moment with fellow sailor John Gibbs.

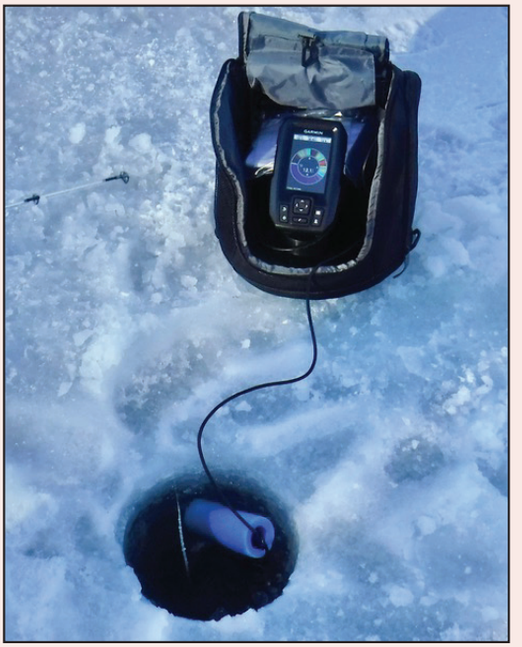
Since then, the extraordinary warmth and friendship and plain good fun this pair has brought to the lake has been squarely matched by their commitment to the welfare of its woods and waters. For many years, Bill served on the board of the Belgrade Lakes Association, some of them as its president, and always as an active volunteer, generous donor, and outspoken advocate for stewardship. Uniquely, he attended every board meeting throughout each winter by commuting monthly from Chappaqua to Belgrade Lakes! As active supporters of the Belgrade Regional Conservation Alliance, now 7 Lakes Alliance, the Witkins in typical fashion are donating 50 of their Hoyt Island acres to the Alliance to be "Forever Wild."

Of course, they would. It's the right thing to do.

That's a whopper, Blaine!

Dick, Pete, and Blaine - fish tremble at their names.

Two whoppers in one day!



The secret to their success? An underwater speaker broadcasting, "Here fishy fishy fishy."

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