



Ensuring Our Future

THE CONSERVATIONIST

Conserving the Lands and Waters of the Belgrade Lakes Region For All

VOLUME 7

FALL 2018

Working Together to Combat Summer Algal Blooms

7 Lakes Alliance and East Pond Association teamed up to complete a \$1.1 million alum treatment on East Pond. While new to the Belgrade Lakes, alum treatments on other Maine lakes successfully prevented phosphorus that collects in lake-bottom sediments from causing summer algal blooms. In June, both groups, working closely with Colby College, completed the first phase of a two part alum treatment on East Pond. In early October, the team completed the second phase of the treatment to ensure that the treatment will be effective for as long as possible. **Alum treatments on East Pond combined with prevention of phosphorous-causing inputs to the lake, could prevent algal blooms for 15-20 years.**

Alum applications, targeted and carefully formulated, cause aluminum to bind with phosphorus in sediments deposited on the lake bottom over decades to prevent it from leaching into the lake. There were no algal blooms on East Pond in the summer of 2018 – an encouraging early sign! However, scientists must monitor and analyze many complex factors to fully understand the treatment’s effects to make informed decisions on other lakes. In the meantime, if conditions cause a release of phosphorous from East Pond sediments, experts expect the alum will sequester the phosphorus and prevent algal blooms.

“Happy so far! Our daughter is enjoying swimming in the pond in August for the first time in about 20 years!”

Randie Martin - East Pond Resident

One thing is certain -- it is critical that we do everything possible to prevent the introduction of new phosphorus to East Pond and other lakes. Prevention through erosion control efforts on roads and driveways, updating and maintaining waste water systems to prevent seepage, and installing lakeshore buffers will help prevent future algal issues. **Together as a community, if we limit phosphorus entering the lake, we could prevent the need for expensive alum treatments throughout the watershed in the future.**



Alum (aluminum sulfate) carefully applied in East Pond by SOLitude barge



Alum falls to the lake bottom where it binds with phosphorus-rich sediment, preventing it from feeding summer algae.



Students and staff from Colby College monitor alum distribution and pH levels to ensure that the correct dose of alum is administered. The students documented that the alum contractor kept pH at between 6.5 and 7.5 to prevent harm to fish and other aquatic life.

Introducing the 7 Lakes Alliance

Merging Resources to Effectively Champion Conservation



Ensuring Our Future

7 Lakes Alliance, in partnership with Colby College, has combined the talent and resources of the Belgrade Regional Conservation Alliance and the Maine Lakes Resource Center to create an organization to champion local conservation.

Mission – Conserving the lands and waters of the Belgrade Lakes Region for all.

Vision – 7 Lakes Alliance will support land and water conservation in the Belgrade Lakes Region by engaging with the whole community to achieve clean water, well stewarded lands, and a vibrant economy. Our work will combine contemporary scientific knowledge, respect for the area’s natural heritage and local traditions, inclusive priority setting and collaborative problem solving, with ongoing dialogue and widespread resource sharing to create a culture of conservation that serves us all. *(continued)*

7 Lakes Alliance Announces New Trail Development

Summer 2018 was a busy one for the 7 Lakes Alliance Stewardship Committee. Volunteers completed a ridge trail across McGaffey Mountain, connecting the A-trail to the Roundtop Spur trail at the summit, creating a roughly 10-mile loop trail. This is all part of a larger vision to connect The Mountain to Mount Phillip, and Mount Phillip to the Kennebec Highlands, as well as to develop a canoe/kayak trail from East Pond to Messalonskee Lake, with multiple stops along the way. New trail development and stewardship volunteers are always welcome!

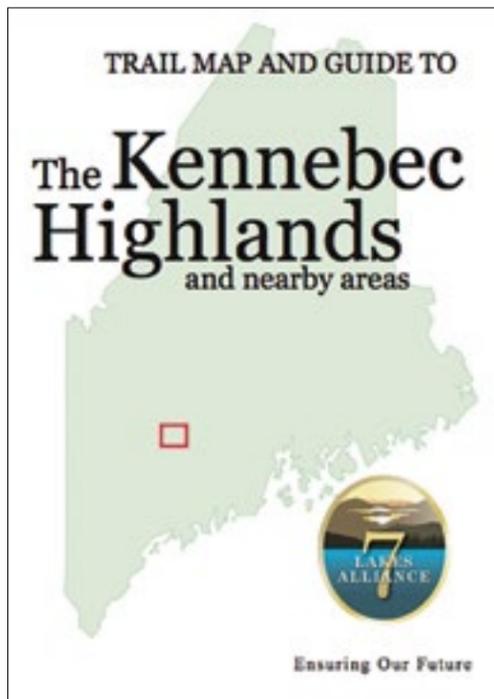


New and Improved Recreational Opportunities in the Kennebec Highlands

7 Lakes Alliance has added several new trails to expand and enhance outdoor sport and recreation activities across our conservation properties. New trails include a new loop trail to The Mountain (outer loop), a new mountain bike and hiking trail up McGaffey Mountain (A Trail), a new beginner mountain bike trail on the Dolley Property, and a new hiking, mountain bike, and Nordic ski trail at Fogg Island. Additionally, 7 Lakes Alliance is examining new and improved ways to collaborate with the Belgrade, Rome, and Smithfield snowmobile clubs on trails across 7 Lakes Alliance properties. For trail maps and more information, visit 7 Lakes Alliance at the Maine Lakes Resource Center in Belgrade Lakes or at www.7lakesalliance.org.



The new Fogg Island trail includes a bog bridge to allow visitors to experience and enjoy the wetlands, while protecting the delicate wetland ecology.



To see this detailed Trail Map or others go to: www.7LakesAlliance.org/KHTrailMaps

(continued from pg 1)

Introducing the 7 Lakes Alliance

Merging Resources to Effectively Champion Conservation

At 7 Lakes Alliance, we believe HOW we work with people throughout the Belgrade Lakes region is critically important. We respect the differing perspectives, experiences and backgrounds of the people who live, work and play here in the Belgrade Lakes Region and believe that all are important to ensuring the future vitality of the waters and woods on which we all depend. We exist to help us all do more and do better through unique programs and resources, innovation, collaboration and advanced science and stewardship.

7 Lakes Alliance will work hard to help bring resources and put them to work on the ground collaboratively and efficiently for the health of the lakes and lands we love.

For more details on our values, visit:

www.7lakesalliance.org/values.



Research and Collaboration: Changing the Future of Algal Blooms on East Pond

East Pond Association has looked to 7 Lakes Alliance and Colby College to help end algal blooms for more than 30 years. Our efforts began 20 years ago with widespread erosion control projects on both public and private lands, made possible through funding secured by 7 Lakes Alliance, that significantly reduced the amount of new phosphorus being introduced to East Pond. Funding has been provided by the U.S. Environmental Protection Agency under Section 319 of the Clean Water Act, administered by the Maine Department of Environmental Protection in partnership with EPA. Colby College and Maine DEP water quality monitoring and research discovered that, while the erosion control efforts we made were keeping new phosphorus from entering East Pond, summer algal blooms were being caused by phosphorus accumulated over decades in East Pond's sediment. The East Pond Restoration Project raised over \$1 million for alum treatments. 7 Lakes Alliance has provided fundraising support, helping

us secure \$232,000 from US EPA-Maine DEP and \$200,000 from the Harold Alfond Foundation, and is the manager, permit holder and fiscal agent for the project. Alum was applied to East Pond in June 2018 and early October (see cover article). We look forward to continuing collaboration with 7 Lakes Alliance and Colby College to extend and protect the investment in the Alum treatment and learn from the first summer

in 25 years without algal blooms on East Pond! To learn more about alum treatments on East Pond and the East Pond Association, visit: www.eastpond.org

Rob Jones, President, East Pond Association

Left: Colby's Compass, captained by Dr. Whitney King, monitoring pH and other water quality factors. Right: Solitude's barge applying Alum to East Pond.



Stop Milfoil: Favorable Conditions Fuel Spread of Variable Milfoil

Belgrade Lakes Association has been collaborating with 7 Lakes Alliance since 2010 to STOP MILFOIL, with BLA raising much of the funding and spearheading communications and 7 Lakes Alliance doing the field work, including removal and identification of new outbreaks. Many people thought the battle was won, but unfortunately the threat is very much alive today. In 2016, we removed 3,500 gallons of milfoil from Great Pond and Great Meadow Stream. This year, 16,808 gallons of milfoil were removed. What happened? The best thinking is that abundant sunshine and very low water levels gave the plants a good head start, and they took off. To help, you can: **Learn** what milfoil looks like, **Inspect** your boat and all aquatic equipment for milfoil every time you leave the water, **Sign-Up** to become an Adopt-A-Shoreline Volunteer, and **Give** generously to the STOP MILFOIL campaign. To learn more about invasive plant prevention on Great and Long Ponds and the Belgrade Lakes Association, visit: www.belgradelakesassociation.org

Lynn Matson, Former President, Belgrade Lakes Association



Top: STOP Milfoil crew members out for survey, Logan Hallett and Reed Bridge Koenigsberg.
Bottom: Variable Milfoil Growth in Great Meadow Stream, Great Pond.

Lake Associations and 7 Lakes Alliance Team Up to Control Erosion



In 2016 North Pond was named a Nonpoint Source Priority Watershed by the Maine Department of Environmental Protection (MDEP). With the help of 7 Lakes Alliance, North Pond Association developed a Watershed Based Protection Plan and was awarded \$80,000 from the U.S. Environmental Protection Agency under Section 319 of the Clean Water Act, administered by the Maine Department of Environmental Protection in partnership with USEPA. Phase 1, starting in early summer 2018 and managed by 7 Lakes Alliance, consists of erosion control on Lake View Drive (photo above) and North Shore Drive in Smithfield. Erosion control and buffer planting will also take place at various sites on the shoreline at Pine Tree Camp in Rome. To learn more about erosion control projects around North Pond and the North Pond Association, visit: www.northpond.net

Jodie Mosher Towle, President, North Pond Association

Mapping Sources of Phosphorus and Mitigating Nutrient Rich Runoff

Like all the Belgrade Lakes, Salmon Lake and McGrath Pond are threatened by decades of phosphorus rich runoff collected in lake bottom sediments. Intervention is needed soon. The priority now is to work with 7 Lakes Alliance Youth Conservation Corps to limit the introduction of new phosphorus as a first step in securing clean, clear, healthy lakes. Last fall 7 Lakes Alliance led a collaborative effort to survey and map runoff areas along the Salmon and McGrath shorelines. Property owners received information to help remove issues found on their shorefronts. The 7 Lakes Alliance Youth Conservation Corps installed multiple Best Management Practices (BMPs) to reduce erosion and the phosphorus load. To learn more about this and McGrath Pond Salmon Lake Association, visit: www.mcgrathpond-salmonlake.org.

Dave Hallee, President, McGrath Pond Salmon Lake Association



The Youth Conservation Corps working on an erosion control mulch project at a property in the watershed. This mulch helps reduce the amount of phosphorus in runoff that ends up in the lake.

BLA Watershed Survey: Helping Out



7 Lakes Alliance's Director of Programs, Charlie Baeder and BLA President, Carol Johnson assessing erosion problems around Great Pond for the BLA watershed survey. www.belgradelakesassociation.org

Keeping Invasive Plants from Destroying our Ecosystem and Property Values



Since 2010, 7 Lakes Alliance has managed a milfoil remediation team to identify, mark, and remove milfoil in Great Pond in support of BLA's STOP Milfoil Program. 7 Lakes Alliance coordinates invasive plant prevention efforts on East Pond, Great Pond, Long Pond, McGrath Pond, North Pond, and Salmon Lake. The Lake Trust offers support to all five lake associations and provides administrative and project management support as requested. 7 Lakes Alliance also works to educate and engage the public in both prevention and remediation efforts.

7 Lakes Alliance Works with Local Lake Associations to Keep our Lakes Clean and Clear

Story courtesy of Lake Association Reports

7 Lakes Alliance is at the forefront of Belgrade Lakes watershed protection. Our approach is evidence-driven, rooted in the latest scientific research. The collaborative team of 7 Lakes Alliance and Colby College scientists assesses water quality in our lakes and helps develop specific actions to prevent and fix problems.

Several of our lakes have high phosphorous levels resulting in algal blooms, which not only diminish the quality of the lakes but also threaten the ecological and economic health of our region. Alum treatments can help abate decades of phosphorus build-up on lake bottoms and prevent seasonal algal blooms.

Lessons learned from the East Pond treatment (see pg. 1) can guide other lakes experiencing or anticipating algal

blooms, including Salmon Lake, Great Pond and North Pond. The cost of treating these lakes, if needed, could exceed \$5 million. To extend the life of alum treatments and to prevent blooms, we must promote buffers and innovate new ways to keep phosphorous from septic, roads and other sources out of our lakes.

Increased scientific research and development of prevention and mitigation protocols provides critical guidance to our conservation colleagues throughout Maine and the world. 7 Lakes Alliance, in collaboration with Colby College, has an opportunity to create water quality guidance that improves both our region and the planet we call home. To help ensure high water quality in our lakes, a \$500,000 investment in critical scientific research is needed over the next five years.

Photo: Alexander Wall



COMMUNITY



Double Dipping

Wings Mill Dam has been a topic of discussion for many reasons. This is the dam that separates Long Pond and Belgrade Stream (which feeds into Messalonskee Lake). The milfoil in Messalonskee is not contained to the lake: it creeps up the Belgrade Stream all the way to the dam. On the other side of this narrow dam is the south end of Long Pond, which still remains free from invasive plant infestation. This dam is an ideal local fishing spot, and there have been concerns about people “double-dipping” from one side to another and bringing fragments of variable milfoil to Long Pond.

STOP Milfoil is a program funded primarily by Belgrade Lakes Association. The milfoil crew removed 2,920 gallons of variable milfoil from the Belgrade Stream side of the dam to prevent a new infestation in Long Pond.

An Unusual Ride

At every boat launch, 7 Lakes Alliance provides a courtesy boat inspector to prevent invasive species from enter the lakes. This summer 7 Lakes Alliance discovered that water was being drawn from an area that has an aggressive infestation of invasive variable milfoil. The water was used for dust control during road construction around the watershed and could have carried invasive plant fragments. 7 Lakes Alliance is working diligently to identify new threats or new means of transport, such as a seemingly harmless hose at a boat launch. This is a great reminder that invaders are willing to take any free ride they can catch. Whether on a boat, fishing tackle, traps, or hunters blind, invaders do not discriminate.



A Letter from a Volunteer...

Lauren and Sharon came to our annual meeting to explain the Adopt A Shoreline and Milfoil program and to offer their assistance and expertise, and we quickly decided to adopt our shoreline. Several of us attended the workshops where we were taught how to identify milfoil and were given survey materials. Since then, when we gaze under the surface of the water, a whole new world has been opened up to us---the world of aquatic plants---and we feel our lake experience has been greatly enriched.

The Adopt-a-Shoreline and plant paddle experiences were a great way to develop community. We look forward to growing our efforts over the years. There’s even talk of a cookout after the plant paddle next year on Hoyt Island. It is our hope that we have started a tradition of carrying out a conservation group activity that will be passed down throughout the generations.

-Lea Ramirez

Messalonskee Students Learn Lakes Science with Maine Lakes Society and 7 Lakes Alliance

In October, roughly 80 students from Messalonskee Middle School came to the MLRC to learn about lake science. Students were able to go out on Great Pond by Maine Lakes Society’s science boat, The Melinda Ann. It was captained by Phil Mulville, and Peter Kallin taught students how to do multiple scientific tests of water quality including dissolved oxygen tests and Secchi disk readings. At the MLRC, 7 Lakes Alliance staff Lauren Pickford and Amy Soper, led various activities involving fish adaptations, watershed dynamics, salmon migration, and macro invertebrates.



Summer Ends But 7 Lakes Alliance Keeps On Working

Some upcoming events to look forward to..

October

- Leaf Peeping Hike
- Hunters Moon (Blood Moon) Hike
- Volunteer Trail Work Day
- Trick or Treating at the MLRC

Other Events

- Volunteer Trail Work Days
- Holiday Fest – Meet Santa!
- Tree Ski
- Full Moon Snowshoe Trip
- Scavenger Hunt at The Dolley Preserve
- Full Moon Ski (Long Pond)
- Make Your Own Ecosystem
- Bat House Making
- Maple Sunday at the MLRC

Details will be posted on our Facebook page: [Fb.me/7lakesalliance](https://www.facebook.com/7lakesalliance)

Inspected
9,494

boats for hitchhiking plants and animals. 35 courtesy boat inspectors (CBIs) worked 12 hours, 7 days a week protecting the lakes. This program is critical in the prevention of new infestations, invasive species can spread by larvae and small fragments. CBIs are a mix of volunteers, and staff funded by surrounding towns, lake associations, the State of Maine, and more.



7 LAKES ALLIANCE

BY THE NUMBERS



Carrying on **30** years of making conservation a tradition

402 volunteer survey hours

in 2018 looking for invasive plant infestations by kayak, snorkel, or canoe. Plant Paddles and the Adopt A Shoreline program educate volunteers on survey methods and plant identification. After training volunteers can distinguish invasive plants from natives. No new infestations were found!

Removed

15,593

gallons of variable milfoil from Great Pond, Great Meadow Stream, and Belgrade Stream. The fight against invasive species in the Belgrade Lakes is challenging. Maine has 6 native species of milfoil, all of which are commonly found in the watershed. Maine Department of Environmental Protection and Lake Stewards of Maine trained our staff on how to distinguish invasive from natives, well as how to remove the invasive. Unfortunately variable milfoil is very resilient. The STOP MILFOIL crew worked sunrise to sunset to keep the infestation at bay. In 2018, the 7 Lakes Alliance crew, combined with New England Milfoil, removed 16,808 gallons of variable milfoil using multiple methods including DASH (diver assisted suction harvesting), benthic barriers, and hand pulling. Photo below: 7LA's Logan Hallett and Lucas Govert. Photo left: New England Milfoil in Belgrade Stream.

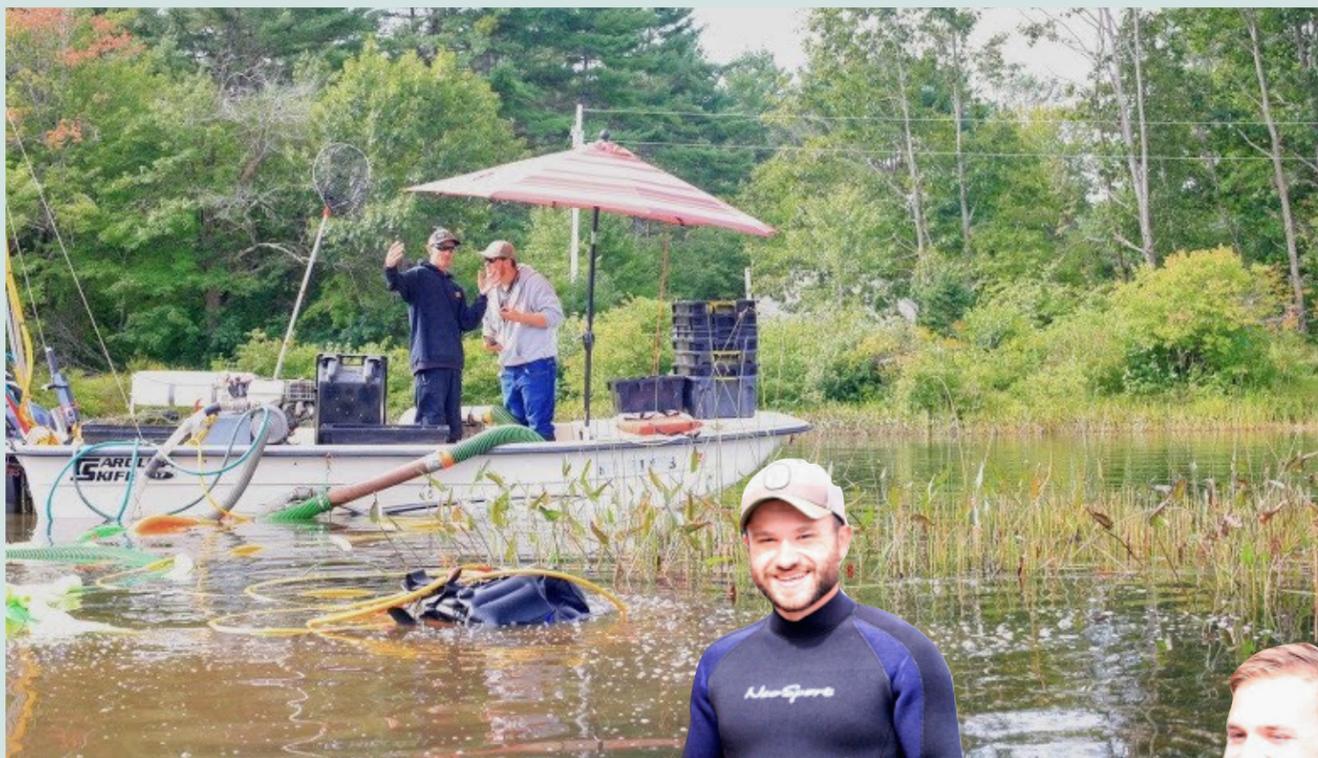
Treated
676

acres in the East Pond Alum Project. 40 years of data combined with Colby's water quality and sediment analyses were used to create a management plan. The project aimed to combat annual algal blooms on East Pond. Funded by the East Pond Association, US EPA, MDEP, and other partners.

Installed **71**

erosion control projects. The

Youth Conservation Corps work to improve water quality by decreasing erosion in the watershed. In 2018, they completed projects on all 7 lakes with the support of towns and lake associations.



Snorkeled **62**

miles during survey and paddled 86 miles in the Belgrade Lakes. The STOP MILFOIL crew snorkeled over half of the shoreline in the Belgrade Lakes, searching for new infestations. The remaining shoreline was paddled in canoes with Aquascopes for better viewing. No new infestations were found!



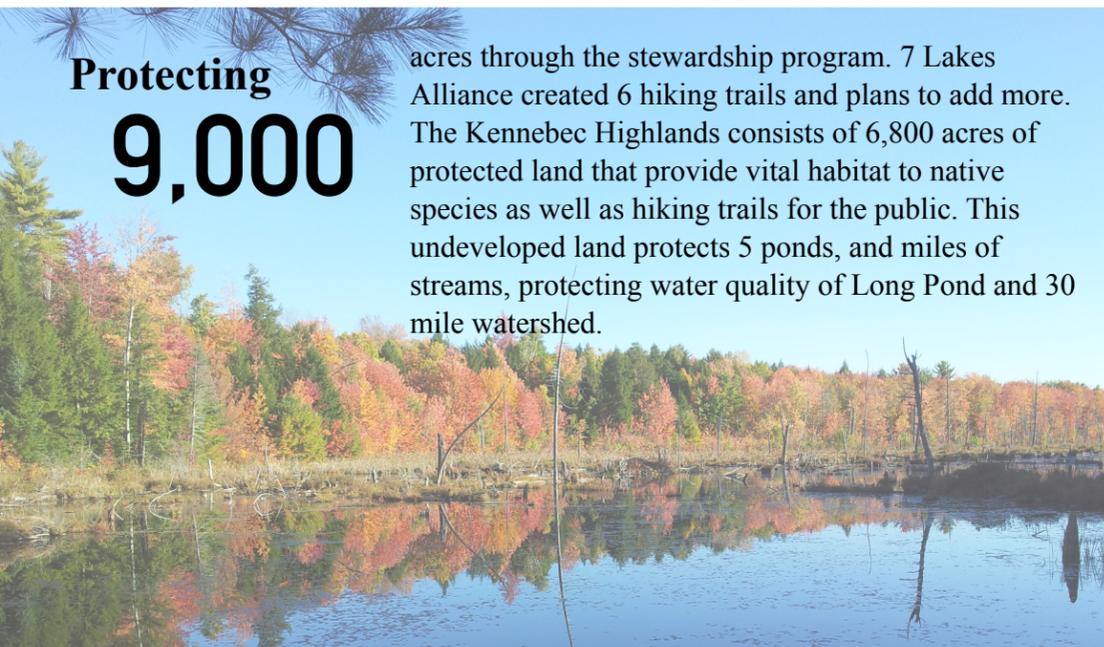
Stopped

411

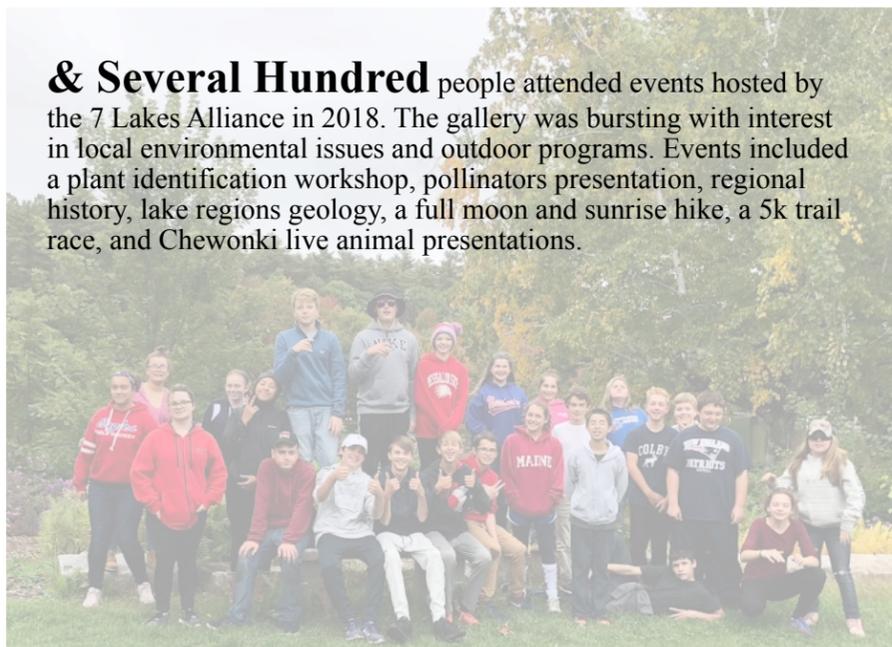
hitchhiking plants thanks to courtesy boat inspections through the CBI program

Protecting
9,000

acres through the stewardship program. 7 Lakes Alliance created 6 hiking trails and plans to add more. The Kennebec Highlands consists of 6,800 acres of protected land that provide vital habitat to native species as well as hiking trails for the public. This undeveloped land protects 5 ponds, and miles of streams, protecting water quality of Long Pond and 30 mile watershed.



& Several Hundred people attended events hosted by the 7 Lakes Alliance in 2018. The gallery was bursting with interest in local environmental issues and outdoor programs. Events included a plant identification workshop, pollinators presentation, regional history, lake regions geology, a full moon and sunrise hike, a 5k trail race, and Chewonki live animal presentations.



Partnerships make everything we do possible.

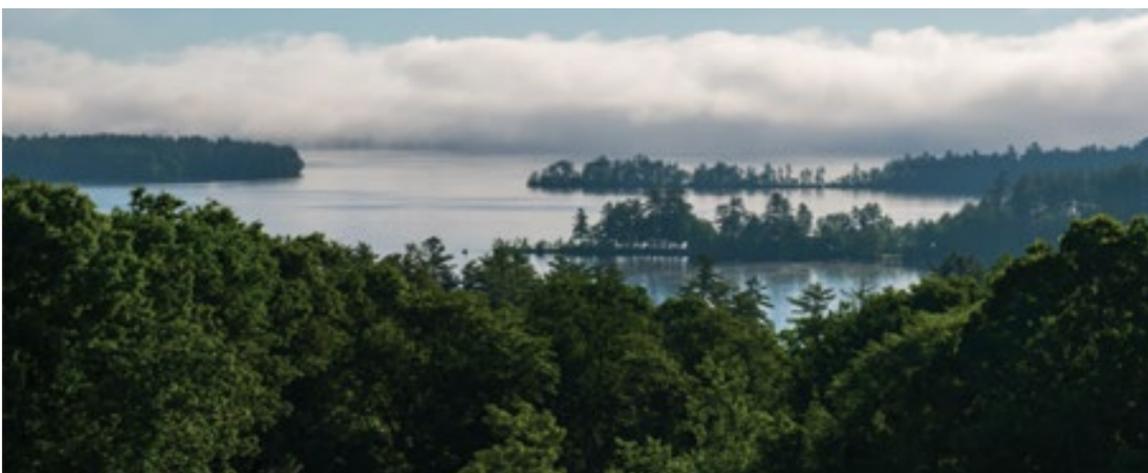
For more information on these programs, please visit our website 7LakesAlliance.org



Conserving Six New Areas of High Ecological, Scenic, and Recreational Value



7 Lakes Alliance has several new land projects underway including land purchases and conservation easement donations. Three conservation easement donations will conserve 415 acres in Smithfield, Mercer, and Rome, will protect water quality and wildlife habitat, and will provide recreation opportunities. Land purchases include a property in the Kennebec Highlands, funded in part by a grant from the Land for Maine's Future Program. This property provides important trail linkages and great views. In addition, 7 Lakes Alliance has been offered two fee purchase properties that are important to protecting the water quality of Great Pond, that are visible from the lake, and that offer exciting recreation opportunities. Both fee purchases have local partners that are willing to work with 7 Lakes Alliance to fundraise and buy these properties.



7 Lakes Alliance, in collaboration with Maine Department of Agriculture, Conservation, and Forestry and private landowners, has conserved 9,000 acres with high recreational and/or ecological value, through both easements and land purchases. 7 Lakes Alliance-conserved lands include the summit of McGaffey Mountain, miles of pristine streams, several wetlands areas, and five undeveloped ponds.

*7 Lakes Alliance
Seeking Accreditation from the
Land Trust Accreditation Commission*



7 Lakes Alliance is in the process of becoming accredited by The National Land Trust Alliance. Land trust accreditation is a mark of distinction, showing that a land trust meets high standards for land conservation and has successfully implemented national Land Trust Alliance Standards and Practices. Accreditation is a catalyst for improvement, which results in faster, better, stronger conservation, and assures that a land trust can keep the promise of perpetuity and is worthy of the public's trust.

To learn more visit: www.landtrustaccreditation.org

Do good work & have fun: JOIN US!

7 Lakes Alliance Welcomes Volunteers to serve as Adopt-A-Shoreline inspectors; Courtesy Boat Inspectors; Stewardship & Trail Development Team Members; Program & Maine Lakes Resource Center Support, and Membership and Fundraising activities. The more help we have, the sooner we can realize our shared vision of a preserved, protected, and high quality natural environment throughout the Belgrade Region.

Please call Mary Kerwood at 495-6039 to learn more and sign up as a volunteer.

THIS JUST IN! - MILFOIL BOAT NEEDED!

STOP Milfoil crew is looking for a donation of a 18-20 ft fiberglass boat for milfoil removal work.
Would be a tax deductible donation.



7 Lakes Alliance was formed in January 2018 to combine the experiences, resources, and knowledge of BRCA and MLRC, with the excellent scientific and research capabilities of Colby College and create a hub of water and land conservation and stewardship in the Belgrade Lakes Region. Our conservation partners and members made this transformative evolution possible through wise, experienced guidance, support, and encouragement. We are deeply grateful.

We've assembled a team of staff and volunteers whose expertise and commitment will significantly enhance the conservation landscape. Our call for a CEO to lead 7 Lakes Alliance drew conservation leaders from throughout the U.S. We are pleased to introduce our new CEO, Laura Rose Day, an energetic, passionate and experienced leader excited about advancing the 7 Lakes Alliance mission to conserve and protect the Belgrade Lakes region for all. Laura, who's lived in the Kennebec watershed for over 20 years, brings degrees in natural resource management and law, and decades of accomplished leadership and management experience. Her work has ranged from lakes management in the Great Lakes to over a decade as Executive Director of the globally acclaimed Penobscot River Restoration Project here in Maine.

We are just as excited about our new Lakes Science Director, Dr. Danielle Wain. Dr. Wain is a civil engineer with over a decade of aquatic research experience working with governmental, industry and academic partners in both the U.S. and recently at the University of Bath in the UK. She's investigated turbulence-plankton interaction in stratified lakes and physical drivers of water quality in reservoirs. Her extensive

field experience and academic excellence make her a great choice to work in collaboration with Colby College and our entire team. Learn more about Danielle, Laura and our board and staff team at www.7lakesalliance.org.

Please come in and meet the rest of our exceptional team who are committed to working with you to preserve and protect this special place. You can also look for them out in the field spotting and removing invasive plants from our waters, providing courtesy boat inspections, constructing shoreline rain gardens and upland erosion buffers, building and maintaining our extensive trail system, conducting water quality research, and assisting and advancing the good work of our conservation and lake association partners.

We are highly optimistic about the future of our region. We look forward to seeing you on the trails, on the lakes, and at 7 Lakes Alliance headquarters on Main Street in Belgrade. Together we can conserve the lands and waters of the Belgrade Lakes Region for all. We thank you for your past support and welcome you to join us.

Thanks for your support.

Tom Klingenstein
7 Lakes Alliance
Chairman

Laura Rose Day
7 Lakes Alliance
President & CEO

www.7lakesalliance.org



Ensuring Our Future

137 Main Street
Belgrade Lakes
Maine 04918