Belgrade Lakes Association 2019 Annual Meeting



Meeting sponsored by Golden Pond Wealth Management





Welcome to the 2018 BLA Member Reception and Annual Meeting. We very much appreciate your participation in this important event and what a wonderful place to gather where we can see our lakes everywhere we look.

The mission of the BLA is to "protect and improve the watershed of Great Pond and Long Pond through preservation, education and action." To that end, today's meeting will focus on three major areas-Loons, Milfoil and Water Quality-and the steps we are taking to preserve it.

On behalf of the BLA Board of Directors I want to thank you for your membership, your generous financial support and your good stewardship of our lakes. Have a wonderful meeting and please don't hesitate to contact any of your board members with your ideas, concerns and suggestions for how we can better serve you and care for our lakes.

Carol Johnson President

AGENDA

3:45 PM-4:30 PM-Registration and a chance to visit

4:30 PM-Welcome and Loon Preservation Project- Lee Attix

4:50 PM-Business Meeting
Recognition
Board of Directors Election
President's Award

5:05 PM-Milfoil Update-Sharon Mann

5:20 PM-Water Quality
Great Pond Survey-Jen Jespersen
Research Update-Danielle Wain, PhD

6:00 PM-Closing. Now go enjoy your lake!



LOON PRESERVATION PROJECT

The Belgrade Lakes Association is leading the efforts to conduct a comprehensive survey of the Common Loon population on Great Pond and Long Pond. The survey is estimated to cost over \$40,000 and will take place over a period of four years. Inspired by a project conducted in the Kezar Lake Watershed by Lee Attix of Loon Conservation Associates, the Association is seeking funding to develop a comprehensive plan in order to support and grow the loon population in a sustainable manner. With this plan, we would be better prepared to establish and maintain nesting areas that are sensible and well-protected.

Volunteers on the two lakes have always understood the significant of these beautiful birds within our environment. Each year, many volunteers canvas the waters for loons in support of the annual Audubon Loon Count. These loon-lovers and stewards of the environment are willing and able; with the necessary funding and resulting study, the Association will be better equipped to educate these volunteers and maximize their impact on the region.

The impact of climate change on our environment is significant and we must gain a better perspective of its impact on our resources. These changes have impacted the common loon and its habits within the region. We understand that pollutants have an impact on the loon population; we strive to minimize such negative effect. Our Association seeks to be proactive in supporting the loon population.

WHAT CAN YOU DO TO HELP?

- ✓ Volunteer— we are looking for loon lovers who may be willing to discretely monitor loon nests
- ✓ Donate your generous contribution can help to defray the costs incurred by the BLA in order to preserve our loon population
- ✓ Spread the Word— share information about this project with your friends and neighbors. They, too, may be willing to get involved in one capacity or another
- ✓ Keep a Watchful Eye— if you notice unusual loon activity, boaters harassing the birds, or other unusual activities, bring it to someone's attention



Donations may be made by sending payment to the address on the reverse side. The BLA is also pleased to accept credit card payments, for your convenience.

Today's Presenters

<u>Lee Attix</u> - is the Director of Loon Conservation Associates (LCA). Lee has devoted over 20+ years to loon research and conservation, leading and participating in many projects in Maine, New Hampshire, Massachusetts, the mid-Atlantic, and even Canada. As Director of LCA, Lee is focused on collaborating with lake associations to help them better understand the status of their current loon population, and implement beneficial conservation measures as appropriate. Lee is currently working with the Kezar Lake Watershed Association, the Little Sebago Lake Association, the Belgrade Lakes Association, the Watchic Lake Association, the Somes Meynell Wildlife Sanctuary and several others.

<u>Sharon Mann, Milfoil Removal Manager</u> - Sharon has a background in ecosystem community interactions and microbiology. She holds a bachelor's degree in Biology from the University of Southern Maine where she managed the microbiology laboratory and taught college level microbiology laboratory classes. Before earning her degree, Sharon had a variety of jobs including; deckhand in Alaska, sous chef, and laboratory assistant. Her eclectic resume and strong background in biology is reflected in her management style of the milfoil removal crew. Sharon is currently working towards a Master's degree in Biology. Her thesis will investigate the effects of climate change on the reproductive strategies of variable milfoil and other invasive aquatic plants.

Jennifer Jespersen-Owner of Ecological Instincts - Jen is an ecologist and water resource specialist with 20 years of experience in the environmental field. Her experiences include working with municipalities, lake associations, Conservation Districts, and state and federal agencies to assess impacts to water quality, and to develop high-quality planning documents that help move restoration projects forward. Jen is a detail-oriented project manager, field scientist and watershed planner with expertise in leading and conducting complex watershed planning projects in Maine and throughout New England.

Dr. Danielle Wain, Lake Science Director - Before coming to Maine, she was most recently a Lecturer (Assistant Professor) in Water Quality Engineering with the Department of Architecture and Civil Engineering at the University of Bath (UK). Danielle graduated with a BS in Civil Engineering from Cornell University after which she spent two years in the US Peace Corps building rural water systems in the Dominican Republic. Upon return, she worked for a year as an engineer in environmental consulting until pursuing an MS degree in Civil Engineering from the University of Illinois, followed by a PhD in Civil Engineering from Iowa State University. Danielle spent two years as a research associate in the Ocean Physics Department at the Applied Physics Laboratory at the University of Washington, then received a postdoctoral fellowship from the Changing Earth Science Network of the European Space Agency at the AirSea Laboratory at the National University of Ireland, Galway. Danielle joined the University of Bath in 2013, where her research was sponsored by the UK Royal Society and the European Commission Marie Curie program to investigate turbulence-plankton interactions in stratified lakes, and the UK Natural Environment Research Council to work with the water industry on the impact of reservoir hydrodynamics on water quality. She joined the 7 Lakes Alliance in September 2018 and is bringing over a decade of aquatic research experience to the organization to help ensure the future of the Belgrade Lakes.

The <u>Belgrade Lakes Association</u> will continue to operate as a separate member-based non-profit lake association, just as we have for the last 111 years. Our mission will not change. We will protect our loons and continue our work to improve the watershed of Great Pond and Long Pond. At the same time we will support, work closely with and do everything we can to help the 7 Lakes Alliance achieve its mission-as it is the same as ours. We all want clean lakes for the generations to come. If you have questions, please contact me at 603-828-1252.

STOP MILFOIL 2019

The STOP MILFOIL crew started the season with a full survey of Great Meadow Stream. They found variable milfoil throughout the stream-- starting just south of the Route 225 bridge.

The most concentrated part of the infestation remains at the mouth of the stream within the confinement of the Surface Use Restriction. Through the extensive fundraising efforts of BLA, generous donations from the towns, and funding from the Department of Environmental Protection, we were able to hire New England Milfoil for 10 weeks this season. Our STOP MILFOIL crew has been removing v. milfoil from Great Meadow Stream, Robbins Mill Stream, and Rome Trout Brook since late May.

So far ~10,000 gallons of v. milfoil has been removed from GMS in 2019. We are expecting a much larger harvest than in 2017 and 2018.

Current Infestations

There are currently three v. milfoil infestations in Great Pond: Great Meadow Stream, Rome Trout Brook, and Robbins Mill Stream.
We forget how lucky we are that the infestation has not spread throughout Great Pond.
Without the efforts of the STOP MILFOIL program, Great Pond would be overrun with v. milfoil!

Get Involved

There's still time to get involved! If you'd like to help in the fight against invasive species in Great Pond:
Adopt your shoreline, DONATE, and support the field crew! We are looking for paddlers to collect fragments in North Bay. Please contact Sharon Mann, Milfoil Removal Manager, 603-205-3912, to receive an assignment!



Variable Milfoil monoculture patch in the mouth of Great Meadow Stream



Emergent flowering spike of Variable Milfoil. Stamen and flowers arranged in whorls on top of the bract axles.

NO NEW INFESTATIONS FOUND!



GREAT POND ~ BELGRADE LAKES, ME

2018 WATERSHED SURVEY

SURVEY FACTS

Watershed Towns: Belgrade, Rome, Smithfield & Mercer

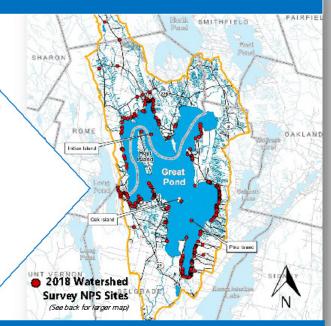
Date: September - October 2018

of Volunteers: 50 Water Quality Concerns:

- Polluted Runoff from Developed Land Areas
- Increased Frequency of Gloeotrichia
- Low Levels of Dissolved Oxygen/Internal Loading

Potential Pollutants: Nonpoint Source Pollution (NPS)*

Nutrient of Concern: Phosphorus Total # of Sites Identified: 237



Number of NPS Sites by Land Use Type:

Residential	147
Driveways	20
Trail/Path	19
Private Roads	15
Beach/Boat Access	11
Commercial	10
State & Town Roads	9
Municipal/Public	4
Other	2



The watershed survey identified 237 different nonpoint source (NPS) pollution sites around the lake that affect the water quality of Great Pond

Erosion caused by driveways, private roads and town and state roads cumulatively have a BIG impact on the water quality of Great Pond, accounting for another 19%

> Similarly, trails and paths leading to the shore and shoreline erosion caused by beach and boat access, accounts for another 13% of sites.

- 6. Maintain private roads annually

THINGS YOU CAN DO TO HELP! 1. Add vegetation to your shoreline buffer 2. Define & stabilize footpaths 3. Add erosion control mulch (ECM) to bare soil areas 4. Install dripline trenches at your rooflines 5. Capture and infiltrate driveway runoff Become LakeSmart ~ Contact the BLA!

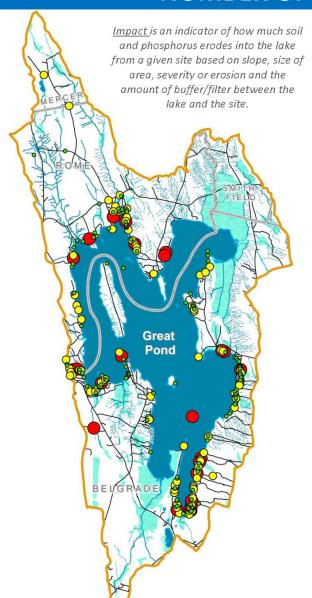
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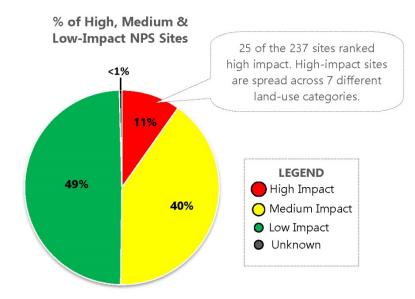


BEFORE & AFTER

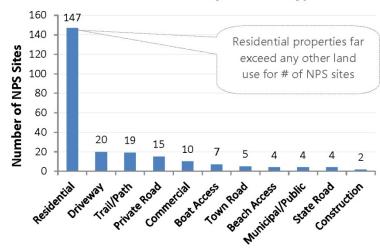
^{*} Nonpoint Source (NPS) pollution, or polluted stormwater runoff comes from a number of diffuse sources within a watershed NPS pollution includes soil, fertilizers, septic waste and other pollutants from diffuse sources across the landscape that are carried into a waterbody by rainfall or snowmelt.

IMPACT OF NPS POLLUTION SITES & NUMBER OF SITES BY LAND-USE TYPE





of NPS Sites by Land-Use Type



Lake Characteristics	Great Pond
Surface Area	8,200 acres
Perimeter	46.1 miles
Maximum Depth	69 feet
Average Depth	21 feet
Flushing Rate	0.43 flushes/year

This survey was made possible in part by the BLA through generous contributions of its members and a grant from the Lake Stewards of Maine. In-kind contributions were made possible by the many volunteers that participated in the survey, including BLA members, 7 Lakes Alliance, Maine DEP, McGrath Pond-Salmon Lake Association, North Pond Association, Kennebec County SWCD, and other interested stakeholders. For more information, call BLA at (207) 512-5150.

Watershed Restoration Priorities

- 1. Target residential neighborhoods with multiple sites for greater reach and impact
- 2. Convene a meeting of commercial landowners with NPS sites in Belgrade Lakes
- 3. Meet with owners of large summer camps to review survey results and discuss next steps
- 4. Meet with town officials to review recommendations for road sites
- 5. Schedule meetings with road associations to discuss recommendations/conduct spring visits
- 6. Follow-up with 88 landowners on the LakeSmart referral list to provide educational materials on lake-friendly landscaping

2019 BLA BOARD OF DIRECTORS

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