



BELGRADE REGIONAL CONSERVATION ALLIANCE



BRCA conserves the lands, water quality, and natural heritage of the Belgrade Lakes watershed.

Local Barn Entered into National Register of Historic Places

Winterberry Farm's barn, in Belgrade, has been entered into the National Register of Historic Places. Kenya Perry, daughter of Winterberry Farm owner, Mary Perry, filled out the nomination paperwork as a capstone project in her final year of homeschooling, prior to attending the College of the Atlantic.

The Foster Barn (as it has been named in honor of the brothers that built the barn) at Winterberry Farm is a large, two-story gambrel roof building that demonstrates emerging agricultural practices and construction techniques in the early twentieth century. Built between 1900 and 1910 by a farm family that focused on agriculture and animal husbandry, the barn is outfitted with "modern" features, including ventilation hatches in the walls, dedicated ventilation ducts leading from the tie-ups to the roof ventilators, and cement floors with manure gutters and a ceiling-mounted manure trolley. Structurally, the building has a post-Civil War framing pattern of common rafters, collar ties, wind braces and braced struts, but much of the frame utilizes 2" x 8" planks lagged together (with or without a spacer block) to form "beams" or "posts" of the size used in traditional post and beam construction. Only the first floor level of the exterior walls has ever been shingled - the upper levels of the barn have exposed sheathing.

The Foster Barn at Winterberry Farm is still in active agricultural use, and has had few significant alterations other than re-building the stalls in the former south bay, inserting a chicken coop in the southwest corner, and replacing worn flooring in the north bay. The barn retains a high level of integrity reflecting its period of initial construction.



In 2012, BRCA purchased a conservation easement on Winterberry Farm. This means that the farm practices are sustainable with MOF-GA (Maine Organic Farmers and Gardeners Association) certification, wildlife habitat and water quality in mind. The Winterberry Farm property is also a "Forever Farm", thanks to a partnership with Maine Farmland Trust.

Winterberry Farm is located in the heart of the Belgrade Lakes region, and is a small diversified certified organic farm. Winterberry Farm's mission is to create a sense of community and belonging by offering wholesome food and flowers to neighbors, and to restore old-fashioned values by inviting people to experience life the way it used to be, on an animal powered farm. The Farm store is open from 10am-6pm Friday, Saturday & Sunday. Winterberry Farm is a community supported small business, and offers a CSA program (Community Supported Agriculture) that keeps the farm running and this important business in the community. You can find out more information about Winterberry Farm's CSA and other events happening at the farm at winterberryfarmstand.com.

President's Column: Change

Last newsletter I wrote about the ongoing efforts to collect data on all of our lakes, focused on developing large scale action plans to improve water quality, and hopefully returning the quality of our waters to that of our childhood memories. It's a tall order, but we must make every reasonable effort we can. Those data have been analyzed and were presented to the local conservation groups at our March Lake Trust meeting. Then experts will be contracted to recommend the best treatment to reverse the decline of water quality in the seven Belgrade lakes. While we don't yet know the specific recommendations, we are aware of the various types of treatments that are likely to be recommended, for example the addition of alum or oxygen into our lakes. They all will be expensive and require a significant increase in resources to implement.

There has been much discussion recently on how to build the organizational capacity to car-

ry out this work. A final plan has not been solidified, but the details will emerge over the next few months. Your BRCA is up to the task to help implement the necessary remediation programs and continue to run our base programs, such as land acquisition, the Courtesy Boat Inspection (CBI) program, and the Youth Conservation Corps (YCC) -which I call our "bread and butter." Additional organizational structure and personnel will be required to carry out these large scale remediation efforts. With the right resources and support, I'm hopeful that our lakes can be restored to past conditions. However the proposed remediation will not succeed without maintaining our existing efforts, including upgrading septic systems, supporting natural buffers, and mitigating camp road and driveway runoff. If our efforts to repair our lakes are successful, without the continuance of these programs our lakes will slowly degrade back to the current state.

Clearly CHANGE is on the horizon, but with our long history of collaboration with our conservation partners and providing services and programs throughout the watershed I'm confident that we will prevail. Below are a few highlights of successful collaboration over the years.

- The most successful multi-lake CBI program in the state, with active and financial support of lake associations, towns, and Maine DEP, managed by BRCA.
- The most successful multi-lake LakeSmart program in the State.
- An ongoing highly successful "Stop Milfoil Campaign" led by the Belgrade Lakes Association, the towns and Maine DEP, and managed by BRCA through a One-Ask marketing campaign.
- The largest YCC program in the state supported by local lake associations, towns and Maine DEP, and managed by BRCA.
- New for 2015, BRCA hired an Education Coordinator who has teamed up with Messalonskee High School, Colby College, and others in an effort to spread the conservation message to our younger generation, and their parents.

Executive Director's Column:

Harold Alfond Foundation 2015 Challenge Grant

The year-end BRCA 2015 Annual Appeal was very successful, resulting in over \$37,000 in donations for water quality programs. This exceeded the 1:1 match required for BRCA to receive another \$25,000 from the Harold Alfond Foundation as a Challenge Grant with a donation deadline of December 31, 2015. These funds support BRCA water quality programs including Courtesy Boat Inspection, milfoil removal, and Youth Conservation Corps.

The Challenge Grant was kicked off at the biannual Harold

Alfond Memorial Golf Tournament in August 2015, which was strongly supported by our lake association partners. Thank you Members and Partners, and thank you Harold Alfond Foundation!

Great and Long Pond 2016 Erosion Control Grant Funds

BRCA has just received a new Maine Department of Environmental Protection (DEP) "319" grant which can be used for erosion control projects on Great and Long ponds beginning summer 2016. The reason the grant is limited to projects on these lakes is that the water quality is considered "impaired" by Maine DEP and the

lakes have an approved management plan. The funds will be used primarily for gravel road and driveway improvements such as culverts and ditching. Towns, road associations, and homeowners are eligible. Please contact BRCA at brca@belgradelakes.org or 207-495-6039 for more information.

East Pond 2017 Water Quality Management Plan

BRCA is teaming up with East Pond Association, Kennebec County Soil & Water District, Colby College, Ecolinstincts, and Maine DEP to update the management plan for East Pond, originally prepared in 2007. The goal of the updated plan is to develop "watershed" (eg, reduc-

Lake Trust Corner:

A WATER QUALITY INITIATIVE FOR THE BELGRADE WATERSHED: *WHAT'S YOUR OPINION?*

The **Lake Trust**, comprised of the presidents and other representatives of the 5 lake associations of the Belgrade Lakes Watershed, is a Standing Committee of the Belgrade Regional Conservation Alliance (BRCA). The **Lake Trust** is a watershed-wide group that represents the water quality interests of shorefront property owners, lake users, visitors, and local businesses in our 7 lakes.

Ongoing water quality research led by Colby College and follow-on lake restoration projects are known as the **Water Quality Initiative (WQI)**. Because the **Initiative** is vital to the interests of property owners, users, visitors and businesses, the **Lake Trust** has dedicated its last 9 meetings to understanding Colby's research and considering frameworks for the **Initiative**. In February the **Lake Trust** produced a framing statement which they offer you for comment:

"Building on existing BRCA programs, the '*Water Quality Initiative*' will restore Belgrade waters to optimum condition by engaging stakeholders and generating sufficient funds to invest in actions that achieve water quality goals and ensure an enduring natural resource legacy for the Belgrade Lakes region. The *Initiative* will be lake specific and honor the wishes of donors with respect to the allocation of funds. The Lake Trust recognizes that effective communication for public engagement and youth education are as fundamental to success as the foundation of expert science and appropriate engineered solutions."

Colby's lead researcher, Whitney King, PhD, has asked the lake associations to define lake restoration goals for each lake in the Belgrade Lakes Watershed. We would like to hear your thoughts about this. **Is there a particular point in time when your lake was as clear and as full of the right kind of fish as you would like?** What was it like, then? Send your description to your Lake Association President, or to Maggie Shannon, Lake Trust Chair, at msshannon@mainelakesociety.org by April 18.

Belgrade Lakes Association, Lynn Matson lynncmatson@gmail.com
 East Pond Association, Rob Jones rjmoxie8@gmail.com
 Friends of Messalonskee, Bob Nardi, rnardi@roadrunner.com
 McGrath Pond and Salmon Lake Association, Dave Hallee dphallee@gwi.net
 North Pond Association, Rick Watson northpondpres@gmail.com

Executive Director's Column

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ing road erosion) and "in-lake" (eg, alum treatment) management actions that will result in improved water quality, including fewer algae blooms. Together with enhanced water quality data collection led by Colby, and analysis provided by project partners and outside consultants, the plan will be updated by 2017.

Water Quality Initiative

Maine Lakes Resource Center (MLRC), Colby College, lake associations, and BRCA are collaborating on the Water Quality Initiative launched spring

2015. The goal is to develop management plans for the water quality issues facing the Belgrade Lakes region, including algae blooms and invasive plants.

The first step was to get much more detailed water quality data on all seven major lakes in the Belgrade Lakes chain; this is a long-term task and will be ongoing. Colby professor, Whitney King, presented first-year (2015) water quality and lake sediment data at a public meeting held on March 16, 2016. Visit the link at <https://mainelakesresourcecenter.org/the-water-quality-initiative/water-quality-community-meeting-march-16-2016/>

Next steps are to complete the analysis of the data, develop management plans, and fundraise to undertake the actions needed. Project partners and outside consultants will conduct the analysis which should be completed within a few months. Management planning based upon this analysis will be presented in public meetings during summer 2016.

This is an exciting project that is already giving our lake community tremendous insight into the health, fragility, and resiliency of our lakes. Once the analysis is complete, management plans will give us the game plan to do what we need to do to maintain and restore our lakes .

- Charlie Baeder, Executive Director

The Youth Conservation Corps' (YCC) mission is to install Best Management Practices (BMPs) and to increase awareness of erosion issues around the Belgrade watershed (Great Pond, Long Pond, East Pond, North Pond, Salmon/McGrath, and Messalonskee). BMPs have been designed by the Department of Environmental Protection and will reduce the amount of phosphorus entering our lakes. Impervious surfaces such as; driveways, lawns, and rooftops intensify phosphorus loading by increasing velocity of storm water. Excess phosphorus can cause algal blooms and other water quality problems. The Conservation Corp installs a wide variety of BMPs and uses many techniques that prevent erosion. YCC is seeking local enthusiastic students to fill crew member positions. If you are interested in manual labor and serving our lakes, contact Nathan D. Durant at brcacc@belgradelakes.org or call (207-931-8791).

Conservation Corps Jobs
Are you a high school student over the age of 16?
Do you want to protect natural resources?
Are you motivated to work cooperatively in a group setting?
Do you want to work outside?
Are you able to lift large rocks?
Are you comfortable working in the water?
Do you want to increase physical fitness while getting paid?



The YCC is also looking for project sites. Do you have mud splatter on your siding? Is your shoreline receding? If so, the YCC can help. Contact the Conservation Corps director, Nathan D. Durant to schedule a site visit and get a free estimate for suggested BMPs. The YCCs season runs for eight weeks from Late June to Early August. Our policy is first come, first serve. So don't hesitate to give Nathan a call.

Wish list:
Heavy Duty Wheelbarrows
Spades and Shovels



**Kimball Pond –
Kennebec Highlands
2016 Fundraising Update**

BRCA expects to receive our Land For Maine's Future grant soon! Together with donations received from BRCA members, the community, and foundations, we are close to our fundraising target of \$263,000. At this time, we are still \$30,000 short of our goal. If you have already donated, thank you again for your support! If not, please help us reach our target. Join us on the trails this summer.

Milfoil Program: Volunteer CBI's WANTED!

The Courtesy Boat Inspection Program (CBI) started in the Belgrade Lakes watershed in 2002. This past year, Courtesy Boat Inspectors inspected 15,967 boats going into and coming out of the lakes in the Belgrade Lakes watershed. Each public boat launch in the watershed is staffed at various hours Sunday through Saturday, from Memorial Day weekend through Labor Day weekend. There have been several "saves" throughout duration of the CBI program. This means that there have been several instances where invasive aquatic plants have been removed from a boat or trailer either



before it has entered a lake or when it is coming out of an infested lake. Prevention is the key to winning the battle against invasive aquatic plants, and it is also a lot less expensive than removing invasive plants after they have become established.

The Belgrade Regional Conservation Alliance hires almost 20+ seasonal staff each summer (with financial support from area lake as-

sociations, BRCA members, watershed Towns, and the State of Maine) to staff public boat launches. Most of these seasonal staff include high school and college students. One of the most challenging aspects to the CBI program is maintaining coverage at the beginning of the season and the end of the season (when CBI's are less available due to school and extracurricular schedules). This is why it is so important to include volunteers in the CBI lineup! If you, or someone you know, would be interested in being a volunteer CBI, please contact BRCA Milfoil Director, Toni Pied at brcamf@belgradelakes.org.

A WIN-WIN-WIN PARTNERSHIP THAT BROKE ALL RECORDS: LakeSmart & YCC

Both the BRCA Youth Conservation Corps (YCC) and Belgrade Lakes Association's (BLA) LakeSmart Program broke records in 2015, due in part to a new partnership between them. Last year, the YCC Director, Nathan Durant, took the LakeSmart training and now each program provides information about the other to home owners. Program managers Nathan Durant (YCC) and Logan Parker (LakeSmart) say the synergy between their programs helped propel their success.

It's easy to see how these programs complement each other since LakeSmart evaluates properties and recommends best management practices (BMPs), and the YCC provides free labor to lakefront owners wanting to install BMPs for lake protection. Last summer, the YCC upped its previous record of property improvements by 20% - completing 125 projects on 46 different sites. BLA's LakeSmart visited 82 homeowners on Great and Long Ponds, gave the LakeSmart Award to 26 camp owners

and Commendations to 54 others, an achievement unmatched anywhere else in Maine since the program began in 2004!

The partnership has benefits beyond the numbers, too. BLA's 10 volunteer screeners and 2 evaluators can cover a lot of ground, enabling the YCC to undertake large projects. A notable example is the Crystal Springs Association property on Great Pond where owners of 24 homes made a commitment to become LakeSmart two years ago. Originally a fishing camp, these lakeside homes perch on the water at the foot of a steep hill. For this entire parcel to become LakeSmart will be a significant plus for water quality. And the concentration of YCC work on one extended site enables the Corps to use its resources most efficiently. Camp Merryweather, with more than a mile of shoreline, and Windover Drive Association are two other extensive projects now underway.

LakeSmart takes getting a systematic look at pollution sources

across an entire land parcel. YCC Director Durant appreciates the LakeSmart framework because he can plot one or two upgrades into an overall plan for property improvement. For the homeowner who may deal with both programs more than once over the course of several years, having YCC staff and LakeSmart volunteers use the same approach and terminology promotes understanding.

Both programs are gearing up for a bigger year in 2016. To check your camp's effect on water quality, contact Logan Parker to schedule a LakeSmart visit: 207-495-3617 or lparker.mainelakes@gmail.com And, to put those recommendations in place with free labor, call Nathan Durant at BRCA, 207-931-8791.

By the way, that third "WIN" in the title stands for the lakes, and for property value, wildlife, and recreational opportunities.

-Maggie Shannon, LakeSmart Program Manager, Maine Lakes Society, and BRCA Board Member and Lake Trust Chair

Education Program: UPDATE

Since joining with the BRCA last July, Education & Outreach Coordinator Matthew Leahey has brought watershed science education to 136 individual students for a total instructional time of over 1000 hours. Starting off with co-teaching a 6-week Freshwater Science seminar with HS science teacher Aaron Poday last October-November. This course focused on the water quality of the Belgrade Lakes watershed through studies in dissolved oxygen, nutrients, pollutants, aquatic invertebrates and plants, and physical properties of streams and lakes.

Superintendent Gary Smith was so pleased that he invited Matthew to present his work at the Kennebec Valley Superintendents Association Conference at the University of Maine Augusta last November and to the monthly school board meeting earlier this month. Matthew and Aaron will be offering this course over the summer. Where students will have an opportunity to earn their volunteer hours required for graduation through participation in BRCA and lake association Courtesy Boat Inspection, Milfoil removal and Youth Conservation Corps programs.



Moving forward in the high school, Matthew and Aaron are continuing to work together in Aaron's Science of Fish and Fishing seminar course, concentrating on water quality and its effect on Maine's fisheries and sportsmen. As part of this semi-

nar, representatives from Trout Unlimited conducted a workshop on tying fly fishing flies. Each student had the opportunity to tie two flies.



Matthew has also begun to work with another science teacher, Pia Cellamare, in her Wildlife & Land Management course. They'll be studying trees and logging in Maine, navigation, birds of Maine and invasive species in the Belgrades. Matthew is also expanding into other curriculum areas through Topics in Nonfiction Writing: Hunting and Fishing. One activity we will do in this course is have an IF&W fisheries biologist present on current fish management and stocking plans in Long Pond, afterwards we'll hold a press conference where students will ask questions for a their newspaper article assignment.

BRCA's Education & Outreach Coordinator Matthew Leahey has been working closely with Amanda Ripa's 7th and 8th grade students Messalonskee Middle School. The overall theme of the lab activities that they have conducted has been the processes that lead to algae blooms in the Belgrade Lakes. Students started through an investigation using stream flow tables. These tables allowed students to see how streams, rivers and deltas form over time and how different flows affect erosion and deposition.



Next, they played a game called, "Reliably Dizzy." In this activity, students formed teams and learned about how effective experimental design has a direct affect on the validity and reliability of results.



Using this knowledge, all 76 students conducted an experiment where they tested the effect of different amounts of fertilizers on the amount of algae growth over time. The final investigation students at Messalonskee Middle School conducted was on lake layering. Using dyed water samples, they saw how temperature and density differences influenced the formation of the hypolimnion (colder bottom layer), thermocline

Education Program: UPDATE (continued)

(boundary zone), epilimnion (warmer upper layer) and how the equalization of temperatures caused the layers to mix.

These hands-on science experiments provided a meaningful experience for students, but creating solutions is a crucial component of the Belgrade Lakes Watershed Education Initiative. It's important to impress upon students that it's not all bloom, doom and gloom, and that there are a multitude of solutions that they themselves can enact in an effort to restore lake health. Starting later this spring, over 100 students from 2 classrooms and 3 grades will design, build and install a floating wetland as a long-term bioremediation project in a small pond behind their school. Throughout this long-term project, students will use technology to monitor the pond's water quality in terms of the chemistry and wildlife habitat. One of the largest educational benefits is that once established, this floating wetland should survive for several years, allowing for students to continue their investigations through high school.

In April, Matthew will start with Belgrade Central School's 5th grade where he'll teach lessons on the annual Alewife run in the Kennebec, European settlers on Maine's apple orchard industry as they establish a school garden with funds from RSU 18's recent Farm-to-Schools grant.



Lastly, the BRCA Education Program will be working with Camp Runoia's Junior Maine Guide Program teaching lessons on current Maine environmental issues and orienteering, and Camp Tracy's Outdoor Education Program developing curriculum, training staff and leading overnight trips on BRCA's property on McGrath Pond.

- Matthew Leahey, Education Director

President's Column

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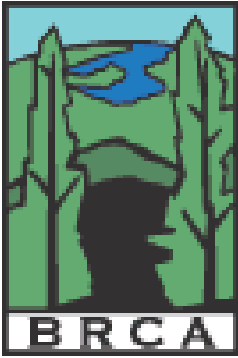
The BRCA provides many services for our conservation partners. Rick Watson, president of the North Pond Association recently wrote "On North Pond we rely on the BRCA to handle hiring, payroll and staffing for our Courtesy Boat Inspection programs... We have also become a more consistent user of the Youth Conservation Corps and its services." East Pond Association president Rob Jones noted that "The East Pond Association is a volunteer only organization. We do not employ staff. Having access to the BRCA staff on an as needed basis enables us to do much more to protect and improve the water quality in East Pond than we could do otherwise."

These programs and services have protected our lakes for years, but now it's time to step it up and treat the illness with all the forces we can muster. It will be a major effort and require that everyone work closely together and pull in the same direction.

Many people fear change; I see it as an opportunity to flourish. I'm very excited about the prospect of initiating new work necessary to return our lakes to their past glory. But you have our commitment that BRCA, with your support, will continue to provide our base programs and services. We will not be content with the status quo; we will continue to take a proactive approach by hiring the necessary experts and doing what it takes to preserve this heritage.

- Mel Croft, President





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