

## Buffers -- Beautiful and Best

For a lake, shoreline buffers are like the walls of our homes or the clothes on our backs. That's how the Huron River Waterfront Council in Michigan describes them. When it comes to shoreline landscaping, a buffer offers not only beauty, but also superior protection for the Lake's water quality.



Bruce and Mary Ashby recently completed a new lake-friendly buffer featuring terraced gardens with a large variety of plants. Along with the many native trees left standing on their property, the buffer helps to control stormwater runoff, the major source of contaminants in Lake George.

A buffer is a strip of vegetation, either original or re-established, along a shoreline. The trees, shrubs and plants in a buffer provide a natural and gradual transition from the land to the Lake, and a connection that is essential to wildlife.

As you travel around Lake George by boat it is easy to spot properties where this important

connection has been lost... where native plants have been replaced with turf grass, seawalls, boulders, or other man-made barriers. But thankfully, we also have plenty of places where trees, shrubs and natural plants are still flourishing along the water's edge. By reducing the speed of runoff, buffers reduce erosion and allow groundwater to recharge. Buffers absorb noise and provide shade to help reduce water temperature. As a source of food, nesting cover, and shelter, buffers enable wildlife to move safely from one habitat to another.

Longtime LGA members Bruce and Mary Ashby wanted to slow down the runoff on their lake-side property north of Bolton. Every time it rained, their steep and rocky site, with shallow soils, provided a straight shot to the Lake for runoff and anything it contained. They chose Gould Landscaping to help them solve the problem, because of the company's reputation for being environmentally conscious and for using phosphorus-free fertilizers. Gould designed and installed a beautiful terraced buffer using a wide variety of plants, including natives such as red twig dogwood and low grow fragrant sumac. Bruce and Mary also have a rain barrel to capture stormwater on their property. *(continued, next page)*



## Buffers, *continued* - Claudia Welss Goes Wild with Native Plants - Exclusively!



Pictured here is the new shoreline buffer of Tom Halbach and Claudia Welss, planted this past summer. When they moved to their new home, directly south of Indian Kettles Bay, Claudia noticed that the water didn't seem as clear as it was at her previous Lake George home, and there were small plants growing in the water, making her suspicious that perhaps too many nutrients were getting into the lake. Aesthetically, too, the property looked unnatural; too many trees had been removed and the lawn ran directly down to the dock. A large circular driveway was also generating a lot of runoff.

The solution? A shoreline buffer landscaping plan, designed and installed by DeFranco Landscaping. The plan included three separate planting beds, running parallel to the dock, to capture and filter runoff before it can enter the lake. What's also amazing about it? The design features **EXCLUSIVELY** native plants! Dozens



*(continued, next page)*

(continued from previous page) of different varieties were used in the design. The flowers are (starting clockwise from the upper right): Shrubby St. John's Wort, Butterfly Weed, Swamp Milkweed, New England Aster, White Wood Aster and Sneezeweed. By using all native plants, this landscaping plan will require minimal maintenance. These plants thrive in our Adirondack environment, resist draught and deer, work well in our soils, and require no fertilization. They also attract birds, butterflies and bees! (For the complete landscape plan, see the LGA website.)

## An Inspired Legacy - Mike & Kathy Dier



When Mike Dier was five years old, he walked from his home in the village of Lake George to the Lake Avenue beach with his mom and brother. He could swim out as far as he wanted because there were no ropes, and a sand bar made the water shallow. His mom would lay out a wicker mat on the beach, and nearby a vendor sold soda and ice cream sandwiches. Every summer, Mike's family enjoyed a two-week camping trip on Long Island. He learned to swim and sail at the Lake George Club. And Mike's grandfather was the doctor who followed alongside historic swimmer Diane Struble in August of 1958, when she became the first woman to swim the length of the lake.

These cherished memories have cemented a deep love for Lake George in Mike's soul. Five years ago Mike was humbled when asked to join the board of the LGA; today he is proud of the multiple services the LGA provides, and embraces the LGA's balanced, non-threatening approach to conservation, an approach that fosters municipal and business partnerships. The passion of his fellow board members has been infectious he says! For all these reasons and more, Mike and Kathy have chosen to leave a gift to Lake George in their will through the LGA's Helen V. Froehlich Legacy Society. For more information on how you can do the same, please contact Nancy Cobb-Zoll at the LGA office.



## Ice Eater Reminders

As winter approaches, remember these Ice Eater tips. Avoid the headache of a damaged dock.



1. One size doesn't fit all. Use the smallest sized ice eater possible to open the area you need.
2. Limit the time that your ice eater runs by using a timer and a thermostat.
3. Keep it to yourself. Place your ice eater in the water pointing vertically.
4. Do not use an ice eater to impede public access to the lake.
5. Consider posting a sign that says "Danger: Thin Ice" or "Caution: Open Water" as a general precaution if you are concerned about safety or live close to a public access location.
6. Turn your ice eater off by mid-March to avoid the problem pictured above.

(Download more complete information from our website – look for our De-icing Devices brochure.)

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## Island Trash: LGA Advocates for, and Secures, a Lake-friendly Solution

Due in large part to public pressure and efforts made by the Lake George Association, the Department of Environmental Conservation (DEC) has reversed an earlier decision to discontinue trash collection centers for the Lake George islands in 2011.

The DEC has decided to raise campers' fees to offset the costs of operating the trash collection centers. In 2011, in-state campers will pay \$28 per night and out-of-state campers will pay \$33. Rates in 2010 were \$25 a night for all campers. These new rates and the reversed decision are not yet reflected on DEC or camp reservation web sites.

Earlier this summer the DEC announced that, beginning in the 2011 season, it would no longer provide trash removal services



for people camping or picnicking on the Lake George islands. Due to state budget problems, the DEC announced it would be implementing a "carry in, carry out" policy for the islands. At the time, DEC spokespersons said that the decision was final and non-negotiable.

The LGA responded immediately, with Executive Director Walt Lender issuing a letter to DEC Commissioner Pete Grannis. In that letter, and corresponding letters to the editors of local newspapers, Lender encouraged the DEC to consider alternatives and to meet face to face with Association members, local elected officials, and other local stakeholders to gain a better understanding of the history and unique local situation regarding these campers and campsites. With pressure mounting from State Senator Betty Little, Assemblywoman Teresa Sayward, local officials and other groups, the DEC agreed to meet.

The decision deeply concerned the LGA, as trash left behind at campsites, floating in the water, or piling up at lake-side marinas, can be highly detrimental to both the lake's water quality and to its beauty. Buck Bryan, LGA past president, in an interview with Albany's *Times Union*, shared his memories of what it was like before the state started garbage collection on the lake in 1955, and it wasn't pretty. There was garbage all around on the sites, he said. Marina owners and other shoreline business owners are also well aware of the severe problems that occur at their businesses when state garbage collec-

tion is inadequate: garbage spills over from their small private dumpsters.

As has been the case for over a decade, 2011 island campers will be required to remove all of their trash and recyclables from their individual campsites, and will have the option to take it by boat to one of three garbage collection centers: Uncas Island, Narrow Island or Long Island. Campers can stay on the islands as long as two weeks. Without these collection centers in place, the responsible camper would either have had to store up to two weeks of garbage at their campsite or on their boat, or they would have had to interrupt their vacations mid-week, boat back to the shoreline, get in their cars, and drive their garbage to a town landfill -- not the easiest task for out-of-town campers not familiar with local landfill locations. A more likely scenario would be that more campers would either leave their trash behind at the campsite, where it could easily flow into the Lake, or would dump it in the private dumpster of a marina or other a shoreline business, causing an unfair burden to these businesses.

## Floating Classroom: Best Year Ever

Our audiences on the Floating Classroom soared this year. In 2010, 2093 participants experienced the hands-on educational program out on Lake George. Our 2009 participation was 1,261.

We welcomed many new groups this year, including three homeowner associations: Arcady Bay, Overlook and Pilot Knob; the Hague Chamber of Commerce; Camp Chingachook; Silver Bay YMCA; Adirondack Camp; Huletts Landing Historical Society; Stony Creek Summer Camp; seniors from Bolton and Hague; and schools from Greenwich, Edinburg, Hunter-Tannersville, Putnam,



Schalmont, Ticonderoga (St. Mary's), and Addison, as well as the Bethlehem Lab School. After their memorable learning experience out on the

Lake, we hope all our participants will put their new-found understanding of lake science and conservation to work by becoming lifelong stewards, not only of Lake George, but of all the water bodies they visit!

## \$53,000 Stormwater Project at Lake George Highway Garage is Complete

In 2008, a stormwater problem at the Lake George town highway department was identified. All of the stormwater on the highway department's 1.8 acre site was flowing to the north end of the property, and it was causing a tremendous amount of erosion as it ran directly into West Brook.

Recently, with the help of the LGA, this non-point source pollution has been eliminated. Construction on a new \$53,000 system, estimated to handle about 14,800 cubic feet of runoff, is now complete. Two sets of double stacked dry wells

problem was originally identified in a Warren County Soil and Water Conservation Department (WCSWCD) watershed field study on West Brook. The field study looked at upland areas and identified areas of nonpoint source pollution within the watershed.

While they knew they had a major problem, the highway department did not have the estimated \$75,000 in funds required to fix the situation. State funds were requested from the Lake George Watershed Coalition (LGWC), but reimbursement through

that program comes only after a project is completed, and the town didn't have the up-front money needed. Local matching funds were also required.

The LGA requested funds from the Helen V. Froehlich Foundation as part of the local match. Lake George Town Highway Superintendent Hoddy Ovitt offered equipment and labor as part of the match as well. After walking through the site and discussing the project with WCSWCD's Dave Wick, estimates to just capture the stormwater runoff on the site were lowered to \$35,000 to \$40,000. The Lake

George Association decided it was important to step in and fund the project up front to alleviate and fix this critical stormwater problem quickly, rather than wait, particularly with work about to begin downstream at Gaslight Village.

The project took several weeks to complete from the initial excavation to the final paving. The cost and transport of materials were underestimated and additional funding was secured through the Champlain Watershed Improvement Coalition of New York (CWICNY) and their EPA Targeted Watershed Grant. WCSWCD provided the design and project oversight. The highway department provided equipment and labor, and Warren County provided an excavator and paving crew.



Infiltration chambers are in place and getting backfilled with stone. A double stacked dry well is in the upper right corner.

now capture runoff from the site. (Each of the four dry wells is four-feet high and eight-feet wide.) From the dry wells the flow is directed into 40 StormTech® MC-3500 infiltration chambers via a 12-inch manifold distribution pipe.

The system was completed just in time for several recent heavy storms that dropped almost three inches of rain. This was quite a test for the new system, but we are happy to report that all that rain did not overtop the system at all! All of the stormwater that was previously running off the site is now getting infiltrated into the soils, recharging the groundwater.

The highway department's stormwater



Pavement is removed and the first dry well is installed.

## Another Successful Peat Septic System: the Fergusons on Oahu Island

*This year's June/July issue of LGA news featured a story about Tom and Dusty Putnam's enhanced peat septic system. In this issue we bring you another successful septic story... this time about Oahu Island's Ferguson family.*

Oahu Island is a beautiful, privately owned island on Lake George, greeting boaters as they enter the Narrows from the south. The Ferguson Family has summered on the island for decades, having bought the island in 1952. At one time all four houses on the island belonged to members of their family. Over the years, two of the houses were sold outside the family. A third was owned by a cousin until a little over a year ago, when Cynthia Ferguson and her sons, Jonathan and Keith, bought it. (An interesting historical aside: the Fergusons have been told that the cousin's house was built in 1858 on Commission Point, where it was used by the underground railroad, and was then later rolled over on logs in 1920 to Oahu.)

The Fergusons have long prided themselves on keeping a modern, well functioning septic system at their main island house on Oahu, and wanted to do the same for the house they had just bought. "When property owners on the Lake expand the size of their homes and increase the use of their septic systems, but don't upgrade their systems accordingly to handle the increased flow, that really concerns us," said Cynthia. "We always want to do the right thing to help protect the lake that we love so much."

and the Fergusons agreed. In fact, both the main house and the second house could be joined together on one Puraflo system for less cost than constructing a conventional system only for the second house.

A peat septic system functions much like a conventional septic system with the exception that the wastewater receives treatment by being filtered through two to three feet of peat before being discharged to the soil for final disposal. Water from the house first flows to a conventional septic tank where solids settle. The clarified effluent then flows, either by gravity or by pump, to the peat filter. The peat acts much like a sponge, absorbing and wicking the effluent and providing



treatment as the wastewater slowly filters through the peat. A combination of biological, chemical and physical processes treat the wastewater as it filters through the peat. Eventually the treated effluent disperses either to a gravel pad underneath the peat modules, or it is



Seven peat containers are readied for level installation on Oahu Island. Above, the completed project (you can just see the top of the units on the crest of the mound.)

Jarrett Engineering was hired to come take a look at the situation. The septic system for the second house was not in good shape, and there was very little soil on the lot. Building a conventional system for the house would require a lot of soil to be brought out to the lot by barge, and that process would be expensive. Jarrett suggested that a Puraflo Peat Septic system be installed instead,

collected for dispersal by other methods, including gravel trenches or a separate drain field. These systems are known to clean the water in a much more comprehensive way than standard systems, filtering it both biologically and chemically. Total nitrogen in the finished effluent is significantly reduced, and this is a great plus for the Lake.

The Ferguson's system was installed this past August

## 2010 Lake Stewards Report

and it was used successfully at the end of August and throughout September. A holding tank and pump was installed at the second house, and then connected through thick brush to the Puraflo units nearer the main house. Each of the seven Puraflo containers had to be situated perfectly level with one another. It took Chris Gabriels about three weeks to install the system, longer than the typical three days. This was due to the island location, and the fact that two houses were being connected to one system. Chris also had to build a large custom-designed barge just to bring over the system's components. Each of the seven units weighed 1800 lbs.

### In the town of Bolton, the current steps for approval of a new peat septic system are:

1. Hire a civil engineer.
2. Perform a perk test and deep hole test on the property. (These tests are usually performed by the engineer.)
3. Download the town's wastewater disposal system application and wastewater system separation requirements. (Available on the website: [www.boltonnewyork.com](http://www.boltonnewyork.com). Bolton is more restrictive than some communities. Both NYS Appendix 75-A and the Bolton code are used.)
4. Design the system. (Must be done by a civil engineer.)
5. Submit two sets of engineered plans and the application to the town.
6. The town planning department reviews the application and plans. Separation and fill requirements must be met. (In the town of Bolton, septic fill systems, or systems having a 0-3 minute percolation rate, must be 200 feet from the Lake.) If separation and fill requirements are not met, the homeowner will be asked to request a variance. If separation and fill requirements are met, and the project meets NSF-40 requirements (Puraflo systems do), the planning department may issue the approval, and no further steps are needed. All enhanced treatment systems, such as the Puraflo, must meet NSF-40 standards as required by the NYS Board of Health's Appendix 75-A regulation.
7. At the town's discretion, and when a variance is required, the town's engineer will review the project. There is a fee for this engineering review. Upon review, if changes are needed, they will be given to the property owner's engineer for revision.
8. Once approved by the town engineer (when necessary), the town engineer will make a recommendation to the local town Board of Health (BOH) that the project be approved. The town's BOH meets once a month.
9. Unlike Bolton, some towns do not have a land-use management program (approved by the Adirondack Park Agency) in place. In these cases, when a system is being re-built that does not meet APA separation requirements, the designing engineer needs to submit the project to the Adirondack Park Agency for approval.

The approval process took much longer than the Fergusons first imagined. Because peat systems are relatively new, the guidelines for approval by code officers, health departments and engineers are not as clear-cut as they are for the standard conventional systems the towns typically see. Each community is somewhat different of course, but in the town of Bolton, which had jurisdiction for this Oahu Island project, the process is multi-stepped and time-consuming, and Mitzi Nittmann, the town's zoning enforcement officer, advises homeowners to allow at least a year to complete the process.

This year the LGA posted Lake Stewards at four boat launch sites on Lake George: Mossy Point, Norowal Marina, Rogers Rock, and the Hague Town Launch. Coordinated for the third year by the LGA, this program seeks to contain the spread of the aquatic species already present in Lake George: Eurasian watermilfoil, zebra mussels, curly leaf pondweed and Asian clam. The program also helps prevent new invasive species from being introduced, such as spiny waterflea and water chestnut, which are present in nearby water bodies.

Of the 2,538 boats inspected in 2010, 414 boats visited a different water body during the two weeks



prior to their launch in Lake George. Other than Lake George, the two most common previously visited water bodies, prior to launch were Lake Champlain and the Hudson River. Lake Champlain is home to over 40 invasive species and the Hudson has 91.

### Boats Inspected in 2010

Launch Location	Boats Inspected	Invasives Found
Mossy Point	875	19
Norowal Marina	807	15
Hague Town	279	11
Rogers Rock	577	8
<b>TOTAL</b>	<b>2538</b>	<b>53</b>

### Total Invasive Species Removed

Eurasian watermilfoil	36
Curly leaf pondweed	9
Water chestnut	5
<i>(not currently found in Lake George)</i>	
Zebra mussels	3



**Don't Forget... Santa will need these to stuff in lots of stockings!!!!**

**The LGA 2011 Calendar**

\$15 each

\$18 each (if mailed)



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**A New Lake-friendly Buffer at the Ashby's Northwest Bay Home**



Bruce and Mary Ashby just completed construction on a beautiful new terraced buffer on their lake front home to address stormwater runoff problems they were experiencing on a steep and rocky hillside. Plants like fragrant sumac, pictured at right, work well on steep slopes like these. And because they are native, they require little maintenance.



**LGA's MISSION:** *Working together to protect, conserve and improve the beauty and quality of the Lake George Basin.*

**Invest in the future of Lake George. Your help is essential to our success...**

This year, the LGA reached a major milestone: 125 years of successful conservation of Lake George!

We had a banner year for our Floating Classroom Program (see the story inside), and a very full season of educational programs: *Lake George-ology, Goose Management, Lake Friendly Landscaping, Lake Invaders, Water Conservation, Creek Critters* and more.

Our Lake Saving Projects span one end of the lake to the other, from West Brook to Putnam! Tremendous preparation goes into each of these specialized projects before any ground is broken.

**Your membership donation supports all of these programs and much more.** Donate online at [www.lakegeorgeassociation.org](http://www.lakegeorgeassociation.org) or call us at 518-668-3558.