



## PRESIDENT'S REPORT Elliott Hillback, IRLC President

Wow! Phew! What an amazing summer and what an impressive last twelve months the Indian River Lakes Conservancy has had with your involvement, help and support. I'll start with a big THANK YOU, to EVERYONE who has been involved! We have continued to grow, to add new programs and strengthen existing ones, to create and build strong working collaborations with government agencies and other partners, and to prepare for national accreditation, while constantly expanding our membership, volunteer and financial support bases.

Here are a few important highlights:

- The Indian River and Lakes Water Project started just one year ago and is making strong progress on a number of fronts, like these five examples:
  - » Increasing public and government awareness and action through regular newsletters, professionally taught seminars, and one on one consultations for and with residents.
  - » Building water quality focused collaborations and working groups with relevant local, county and state government units.
  - » Creating plans and funding sources to develop an Indian River Watershed Plan.
  - » Helping two lakes organize new Lake Associations.
  - » Expanding the IRLC's already strong relationship with the Masters in Lake Management Program at SUNY Oneonta while building new relationships at several other schools.
- We acquired three parcels of land totaling 234 acres, bringing the total acreage we care for to about 1,923.
  - » The Red Lake Preserve and the Indian River Wetlands total 182 acres of mostly wetlands along the Indian River.
  - » The 51.4 acre Redwood Hill Preserve of beautifully wooded uplands is next to our offices in Redwood. It will become home to our education center which will include all-access and standard trails, a trailside classroom and an overlook with a beautiful view of Butterfield Lake. There are also plans for a larger education building in the future.
  - » Construction of some components of Redwood Hill will be underway this fall.
- Various trail improvements included new benches, new signage and a major upgrade of the parking lot and first segment of the Butterfield Lake Trail
- Several members of our team (with partners Cornell, TILT, Clarkson and the DEC) organized a very successful seminar for 35 land and forest managers from around the state about our joint Golden-winged Warbler Habitat Remediation Project. The seminar included fieldwork at our site adjacent to the Butterfield Trail
- We held our largest (and most fun) Celebration of the Lakes event ever along with a slate of informative and fun on-the-trail or on-the-water events
- We are on track to file for National Accreditation in April 2016.

This is  
the  
Place We Love  
Let's care  
for it  
Together

Our largest, most complex and most important effort, however, must continue to be the water quality in the Indian River watershed. If we, collectively, do not take the steps necessary to make significant corrections, the impact will affect everything we love about our Indian River Lakes area. The once pristine Indian River and Indian River Lakes in Jefferson and St. Lawrence Counties are under stress and their future viability is in doubt. The Indian River Lakes Conservancy is working to expand its important human and capital resources to aggressively reverse the decline of these unique bodies of water. The most obvious signs of deterioration include the continuing spread of invasive species like Eurasian Milfoil and the more frequent and widespread appearance of dangerous toxic algae blooms that foul the water. Left unchecked, our beautiful lakes and river will become inhospitable for swimmers and boaters, fish populations will continue to decline and many other wild species that thrive in, on and around our lakes and river will be severely affected. The inevitable outcome will be a reduction in the quality of life for all our region's creatures, both human and wild, leading to dire environmental and

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*Rana sp.* photo by: J Ninos

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## President's Report

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economic consequences.

The Indian River Lakes Conservancy needs your help now to accelerate and expand our water related programs – time is of the essence to deal with this huge fundamental problem. At the same time we also have tremendous opportunities to increase our stewardship activities, expand our educational and recreational programs, and increase access for all to this wonderful place we love where Mother Nature gets to show off her charms. The IRLC Board, Members, Volunteers and Donors have really been stepping up to provide the ideas, the energy and the resources we need to continue our growth, but it is a never ending challenge. Will you accept the Challenge to join us and add your ideas, skills and energy to our team? Call today to find out how you can help! Please remember, this is the Place We Love. Let's care for it together.

## IRLC Awards Scholarships

Each year IRLC awards two scholarships to students, one high school and one Jefferson Community College, who demonstrate academic excellence and intend to pursue a degree in environmental science.

Dr. Richard Sauer, chair of the scholarship committee, presented the award to Lauren Workman at her graduation ceremony at Hammond High School in June. Lauren was the class of 2015 Valedictorian and is majoring in Environmental Science at Hobart and William Smith College. She was very active in school sports and clubs and has also been involved in community service. This summer she volunteered at Cross Island Farms where she increased her knowledge of animals, plants and agriculture.

Jeanette Johnson received a scholarship award at Jefferson Community College in September in recognition of her academic achievement and dedication to the environment. Jeanette demonstrates those qualities and much more, according to Dr. Monica LeClerc, Professor of Biology, and one of Jeanette's lead teachers at JCC. She earned recognition as either a Dean's List or President's List student for each semester at JCC.

Jeanette was born and raised in Spokane, Washington. She spent her childhood exploring the outdoors of Washington and Idaho, leading to her love of nature. She came to the Watertown area to serve with the US Army at Ft. Drum. It was here that she met her husband and they decided to raise their family. Jeanette has begun her BS studies at SUNY Oswego with the goal of becoming an Environmental Research Biologist.

IRLC is proud to recognize the achievements of these two accomplished students.

## Increase your Membership

Have you renewed your membership for 2015?

Your support is critical to conserving this beautiful place and providing clean water for future generations.

Please consider increasing your membership level. Just a few extra dollars per month can go a long way toward helping your Conservancy develop more public programs and bring more people together to protect water quality in our precious Indian River and Lakes!

Thank you for your support!



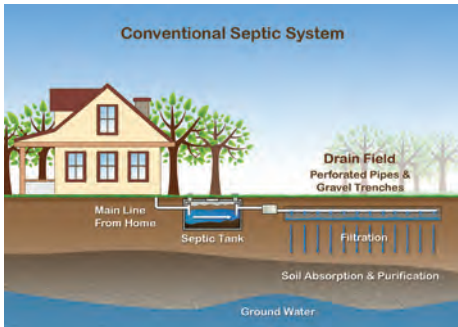
*Dr. Monica LeClerc, Jeanette Johnson, Dr. Richard A. Sauer*

# When Your Wastewater Meets Your Lake

by Kathleen Marean, SUNY Oneonta Biological Field Station

If you live outside of a sewer district, this article is for you. Your home's septic tank is playing a bigger role in the health of your nearby waterbody than you may realize.

Traditional, single-home septic systems treat wastewater in two steps. First, the wastewater leaves your house and spends time in a buried septic tank. While in the tank, the solids will slowly sink to the bottom and the fats and oils float to the top. Second, the partially treated wastewater left in the middle is then released into an absorption field (also called a leaching field or a drainfield). The absorption field is simply a series of pipes that releases the wastewater into a designated area in the soil. Once released into the soil, the wastewater is filtered and "cleaned" by bacteria living underground.



## What gets filtered out by the soil?

During this second step, nutrients like nitrogen and phosphorus are taken up by the soil and can be used by plants. Additionally, and most importantly for your health, harmful bacteria like *E. coli* and other fecal coliforms remain behind in the soil as the wastewater trickles downward.

## Why is this important?

Eventually, the wastewater from your home is going to reach an underground aquifer or bedrock. If the wastewater is not properly filtered and cleaned when it meets the groundwater, it will contaminate it with excess nutrients or bacteria. Often groundwater is a source for lakes, rivers and even drinking water, so contaminated groundwater will impact any waterbody it enters. If the

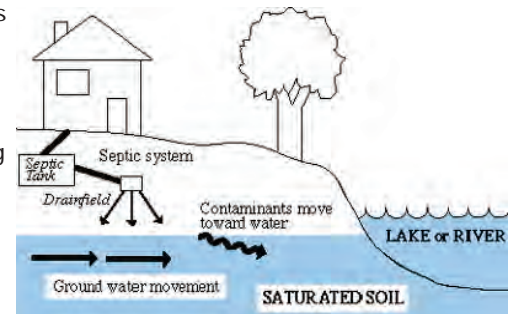
wastewater hits bedrock, it will flow across the layer of rock traveling until it comes to the surface on a hillside or flows into a nearby waterbody. Bacteria in the groundwater, appearing on a hillside, or running into waterbodies can pose a health hazard. At the same time, improperly treated wastewater that reaches waterbodies can lead to harmful algal blooms due to the excess nitrogen and phosphorus it contains. Signs that the soils beneath a septic system aren't doing their job include: exposed bedrock or soggy soils leading downhill from your septic system that may have an unpleasant smell to them; a rise in bacterial infections after swimming; and increased growth of aquatic plants and algae near your shoreline.

In order to properly treat wastewater entering the absorption field, the soils underneath the field need to possess specific qualities including how fast the wastewater moves downward through the soil (permeability); and depth of soil over any feature that might restrict water's downward flow (such as bedrock or a water table). These characteristics are measured and rated by the Natural Resource Conservation Service based on soil type, local geology, and topography. The New York State Department of Health sets specific guidelines for these soil characteristics and how to rate them for suitability for traditional septic systems. Almost all of the soils within the Indian River Lakes Region have been rated as "very limited" for septic systems while the remaining few have been rated as "somewhat limited".

## What can you do?

There are a few tests that can determine whether this is happening on your property. First, you can put an indicator dye into your septic system. If your system has a glaring failure you may see the dye appear on the water's surface near your shore. A second option is to have the water in front

of your property tested for common bacteria or viruses that are associated with household wastes. These tests will only reflect major issues with septic systems. Systems that have minor failures may present less obvious immediate effects, with symptoms appearing over a longer period of time that may ultimately be more difficult to



alleviate.

If your septic system isn't performing there are options available to you. On the market are different types of advanced treatments that you can add onto your traditional septic system. These include an added stage of filters made of textiles or foam that provide additional treatment if your soils are unsuitable. You could also switch to a waterless toilet, which would reduce the volume of waste generated. Alternatives like composting toilets are entirely contained within your home and have no need for soil as a filter.

In addition to any of these methods, you can avoid using and disposing of harsh chemicals and large quantities of oil or grease. You can also improve the function of your system from the surface by landscaping the area uphill in order to divert surface waters and avoid unnecessary flow into the absorption field. Landscaping below your system by planting grasses, wildflowers, or shrubs downhill of your absorption field will help to maintain the integrity of your shoreline and slow the flow of any water traveling horizontally through soils. It is important to plant in appropriate places because the roots of plants will interfere with the pipes in the absorption field.

# News and Events



**IRLC Annual Meeting**  
IRLC's annual meeting on June 27 was a great success this year with many new faces turning out to the Redwood Hill Preserve to learn about the Conservancy and this exciting new project. Plein air painters Jan Byington, Cheryl Simeone, Kathy Sturr, and Linda McCausland were on hand recording the beauty of the day. Their works were auctioned at the Celebration of the Lakes with a portion of the proceeds going to IRLC.



**New Trailside Classroom to be Built**  
A new trailside classroom will be constructed on the Redwood Hill Preserve this fall. This exciting new addition will enable IRLC to offer a wide variety of new programs that connect children and adults alike to the unique beauty of the Indian River Lakes region. *This rendition was generously donated by artist Jan Byington.*



## Spring Hiking

A large group of enthusiastic hikers joined us for our annual Birds & Blooms Hike in May. New spring blossoms, fresh buds on the trees and eagles on the nest all provided the promise of warmer temperatures and new life!



## Trail Improvements

The Butterfield Lake Landing trail and parking area received a makeover this summer. The newly compacted surface will make the parking area and a short portion of the trail accessible for a wide range of visitors. The new trail surface extends through the Grand Lake Reserve's Golden-winged Warbler habitat management area where new interpretive signage will be installed next spring.



This project is funded through the New York State Conservation Partnership Program (NYSCPP) and the New York State Environmental Protection Fund. The NYSCPP is administered by the Land Trust Alliance in coordination with NYSDEC.

### Golden-winged Warbler Workshops

In early September, land management professionals from around the region attended a two-day training workshop to learn how to identify, protect and manage young-forest habitats for Golden-winged warblers and other wildlife. The workshop, presented by IRLC, Thousand Islands Land Trust, Cornell Lab of Ornithology, Audubon New York, NY Department of Environmental Conservation and Clarkson University, provided land managers with valuable information about Golden-winged warbler ecology and conservation as well as opportunities to view active management techniques in the field. *This program was funded through the New York State Conservation Partnership Program (NYSCPP) and the New York State Environmental Protection Fund. The NYSCPP is administered by the Land Trust Alliance in coordination with NYSDEC.*



### Students Visit IRLC Trails

A number of schools have taken advantage of IRLC's trails this year to get students outdoors! IRLC looks forward to more opportunities to engage students with the construction of our new trailside classroom on the Redwood Hill Preserve!



### Hyde Lake Paddle

Despite windy conditions, a great group showed up for our Hyde Lake Geology paddle on August 4th. Local geologist Ken Schwarz brought along maps and rock samples to help explain the geology of the region and of the lake. A number of paddlers chose to brave the white caps for an adventurous paddle after the presentation.



### Celebration of the Lakes

Great food, great music and great friends made for a memorable evening at the annual Celebration of the Lakes!



# Killdeer

by Gerry Smith

The Killdeer is a most peculiar shorebird that is often found far from any shore. Unlike most of its relatives the plovers and sandpipers, this species does not make epic journeys between the Arctic and South America. Instead it remains primarily in North and Central America. Breeding from Newfoundland to Alaska and wintering from the southern half of its breeding range south to the Caribbean and Panama, this is a widely distributed species. It's also a very common species which, combined with the loud vocalizations frequently emitted, makes this bird familiar to many people.



Adult killdeer photo courtesy of Wikimedia Commons

Killdeer are extremely early migrants in the spring appearing well before any other shorebird. During mild periods at the end of winter, they may appear as early as late February and are usually present by early March along Lake Ontario. While movement into higher altitudes may be delayed by a couple of weeks, they are widespread by late March. This species migrates by day or night usually in flocks of a few to as many as fifty birds per flock. They may be seen or heard flying over, often with the raucous call for which the species is named carrying near and far.

It is that KILL DEA call that usually notifies humans of the bird's presence nearby. This early nesting species begins to set up housekeeping shortly after arrival. The nest is typical of most shorebirds, simply a scraped depression on the ground

with a little lining pulled in. Killdeer are often nesting by mid- April at our latitude and are extremely adaptable in choice of nesting substrate. Almost any open area will do, ranging from gravel road edges to pastures and occasionally abandoned parking lots. Nests have been reported on gravel rooftops, although the young may have a long drop to a feeding area.

Once the nest contains a normal clutch of four eggs they are incubated for 22-28 days until chicks hatch. Both parents incubate, with the male often covering the nest at night. The variability in incubation time is impacted by nest site and how often the adults are disturbed and flushed off the eggs. Once the young begin to emerge from the egg they dry off and are well developed. They are precocial and, as the name suggests, ready for life. This is in contrast to altricial birds (most songbirds) that must remain helpless in the nest for weeks before venturing into the world.

As soon as all young are mobile the parents may divide the brood with each adult staying with a couple young. It is at this time when the young are most vulnerable that the observer who comes too close may witness the adults' broken wing display. One or both adults, with small chicks hiding nearby, will feign having broken a wing. They will call vigorously and flop about pitifully as if in great distress. If the perceived predator follows the adult far enough away from the young, a miraculous recovery occurs and the seemingly injured bird flies strongly away. It is a great show and with humans everyone goes home happy. Not so much if you're a fox.

At our latitude, second nestings are rare and usually unsuccessful. When the survivors of the first brood are grown, most retire to a lakeshore or other wet area. The parents initiate their annual molt, but may

not complete it until reaching their wintering grounds. Family groups combine into flocks and numbers can reach into the low hundreds at favored locations. These concentrations may develop by early July with individuals coming and going throughout the summer. These birds are primarily concerned with putting on fat reserves prior to migration and avoiding predators to live another day.

As early as late-July it is apparent that Killdeer migration is underway. Numbers at staging sites change daily as do ratios of adults to immature. By late-August and early September the migration's peak is clearly past, but significant flocks can occur into early November with occasional birds lingering into December. This species has been recorded in all twelve months in the North Country, but the fate of January individuals is highly problematic. This species seems to have adapted well to our human altered world and its immediate future seems secure. Future generations can look forward to the annual return of this noisy, interesting fellow traveler.



Female on nest photo courtesy of Creative Commons

Gerry Smith is a senior Northern New York ornithologist and consulting ecologist.

Gerry is a devoted friend and advocate for grass roots land trusts and the dedicated volunteers who share his love of nature.

You can read other Charismatic Birds of the Indian River Lakes Region articles on our website at [www.IndianRiverLakes.org](http://www.IndianRiverLakes.org).

# IRLWP Makes Progress on Water Quality

by Ed Robertson

The Indian River & Lakes Water Project made real progress this summer as we work at properly treating our wastewater and addressing nutrient rich runoff. We are learning, cottage by cottage, why it is especially important in our unsuitable soil conditions to properly treat the wastewater dispersed near our lakes and to grow vegetative buffers along our waterfronts. The great news is, there is overwhelming support for the Water Project from all stakeholders affected by the deteriorating water quality of our lakes. Everybody is in favor of clean water!



*IRLC Clean Water Best Practices recognition plaque*

Water Project representatives participated in several meetings and training sessions with state, county and town representatives, lake associations and cottage owners focused on water quality issues. Working with RCAP Solutions and Onsite Engineering, we learned how water cycles through the air, soil, creeks, streams, river and lakes in our watershed. We have learned that homes and cottages are a critical part of that cycle, as we draw clean water from lakes or wells and run it through our sinks, toilets and showers and then discharge grey and black water out our drains into soil based septic systems.

The Water Project offered free walk-around septic assessments to local waterfront residents who wished to participate and the response was excellent. Thirty-eight cottages were signed up for assessments. Without

exception, everyone who volunteered for this walk-around assessment program sincerely appreciated learning about the best technical solutions available for treating wastewater on their particular site. New systems have been installed and many more are in the planning stage. From what we have seen so far the upgraded systems being designed are simple, affordable and effective. This assessment program is the beginning for local town officials, engineers, installers and homeowners to become familiar with Standard 40, Class 1 and other systems that have proven successful in other areas of the state. The septic assessment program will continue in 2016. Appointments can be scheduled through April Frederick in the IRLC office.

Growing a dense waterfront buffer zone along the shoreline and eliminating fertilizer (nutrient) use anywhere near the lake will prevent nutrients from entering the water by runoff from developed waterfront home and cottage sites.

IRLC will be distributing recognition plaques and certificates to waterfront property owners who have implemented Clean Water Best Practices.

Another positive step for the Project this year was the outreach to area lakes that do not have a lake association. Cottage owners from Moon Lake and Muskellunge Lake are now working with IRLC to create a lake association for their lakes. Associations promote a teamwork atmosphere to raise awareness of what is happening with their lake. Associations help property owners network with lake groups and other entities locally and statewide. They can inspire residents to take action to improve their quality of life on the lake.

The Water Project is helping to fund a Lake/Pond Management Plan for Lake of the Woods/Boyd Pond that started in September. The study and plan are being done by the SUNY Oneonta Lake Management Masters Degree Program students currently creating plans for Millsite and Sixberry Lakes.

St. Lawrence University is assisting the Water Project's early efforts to promote the creation of an Indian River Watershed Management Plan with a GIS mapping project. A student majoring in Conservation Biology is teaming up with St. Lawrence's GIS Map Specialist to produce useful GIS data and mapping to help the future Watershed Management Plan Steering Committee get a better understanding of the watershed.

## Donate your Boat

Help keep IRLWP Afloat

The Indian River and Lakes Water Project is in need of boats to conduct water sampling and outreach activities. If you have a small flat-bottomed boat or a small pontoon boat that you would like to donate (or sell at a bargain price), please contact us:

IndianRiverLakes@gmail.com  
(315) 482-4757.

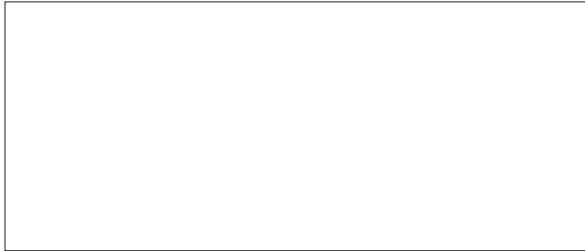
*The Indian River Lakes Conservancy is a 501(c)3 non-profit organization. Gifts are tax deductible.*



The mission of the Indian River Lakes Conservancy is to preserve the natural character of the area, with a focus on protecting clean water, fish and wildlife, and the scenic vistas along the shores of the lakes and the Indian River and to educate ourselves and the community about the natural habitat in which we live.

Indian River Lakes Conservancy  
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Redwood, New York 13679

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or CURRENT RESIDENT

## Save the Dates for 2016

Get a jump start on 2016, put these IRLC events on your calendar now!

**Feb 20 Winter Wonderland Hike 1:00pm**

*Experience the beauty of the north woods on this annual snow shoe outing!*

**May 7 Birds & Blooms Hike 10:00am**

*Celebrate the arrival of spring with IRLC!*

**Jun 25 Annual Meeting**

*Bring a friend to learn more about IRLC and our exciting plans for the new year!*

**Aug 13 Celebration of the Lakes 5:00pm**

*Bring your family and friends to the Bella-Brooke Vineyard for an evening of great food, wine, music and fun!*

**Oct 15 Falling Leaves Hike 10:00am**

*Enjoy the crisp fall air at this annual IRLC outing!*

New events may be added as opportunities arise. Don't miss a single IRLC event - make sure you're on our email list by sending a note to [IndianRiverLakes@gmail.com](mailto:IndianRiverLakes@gmail.com) with the words Join List in the subject line.

### About the IRLC

Formed in 1998 to conserve critical lands in the Indian River Lakes area of Northern New York, the IRLC is a non-profit land trust with 501(c) (3) tax exempt status operating in a manner consistent with the published standards of the Land Trust Alliance, a national organization



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Type "Indian River Lakes Conservancy" in the

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