



PARTRIDGE LAKE PROPERTY OWNERS ASSOCIATION

A Lake Preservation Group

Animal Waste Pollutes the Lake — Who ME?

Spring 2011

We are the resident animal population at Partridge Lake—and thus the source of problems with water quality: high levels of phosphorous at the deepest levels of the lake. Data indicate that our problems are no longer rapidly worsening—certainly not the way they were—thanks to major studies and remediation efforts. To turn the pollution curve from level to down, we must either go away..... or take a hard look at an unpleasant subject: SEPTICS.

New septics are called for when a system is much over 20 years. Far too many around the lake—about 30!—are past their useful life, according to DES. Some systems have not been pumped and maintained properly. Even new septics must be inspected and pumped regularly if they are to do their job properly.

Septic System Testing Is Essential

- How often should my septic system be inspected and pumped?
- What should I expect when I have my septic tank inspected?

Conventional septic systems include an underground septic tank, connected by under-ground pipe to the leach-field or drain-field. Septic tanks are simply settling chambers that allow time for solids and scum to separate out from wastewater. Clear liquid then exits the septic tank and travels by gravity to the drain-field or leach-field. Under normal operation, clear liquid is slowly dispersed from the leach-field into the ground. If sludge or scum enters the leach-field, it could clog dispersal outlets or



pipes and allow wastewater to flow into groundwater and into the lake, or above ground.

Non-conventional septic systems, like aerobic systems are often put in place when existing traditional septic tanks have failed, ground water is too near the surface or a home is too close to a pond or lake. Unlike the conventional septic tank which treats wastewater in the absence of oxygen, the aerobic tank needs oxygen to treat liquid and solid waste and requires electricity and mechanical systems to deliver and circulate oxygen within the tank. Perhaps the most important factor for any septic tank is that it remain watertight. Groundwater must be kept out of the septic tank so that it does not disturb the anaerobic environment of the septic tank. Septic tank waste should not be allowed to mix with groundwater and pollute it.

How is my system doing?

- Test with Dye Trace, especially if the ground is wet or lumps occur on the surface of the leach field. This involves flushing a nontoxic color tracer dye down a toilet and placing charcoal packets to collect any dye that may be leaking from the system anywhere from the house to tank to leach-field. If you do not have wet ground around your leach-field, then a dye Trace will not yield much useful information.

Who ME? Continued on page 3.



Five Key Initiatives Focus on Improved Water Quality: Volunteers for the Day—and Year

The PLPOA has adopted five initiatives this year critical to water quality improvement. With the difficult economic situation, many options for government funds or private grants have dried up for now. These five initiatives will keep us focused on the most important things residents can do to make progress in the next 12 to 24 months.

Beginning with Volunteer Day activities, June 11, 2011, and moving forward through

the year ahead, two neighbors have agreed to lead each initiative. Team leaders, listed on page 2, are the ones to call or email for detailed information and support resources, including DES, businesses and professionals, or neighbors who are knowledgeable about the problems you face.

Volunteer Day Returns June 11

After Volunteer Day last year, one volunteer commented, “I have never been more proud of our lake people.”

So much was accomplished—with enthusiasm and good fun—that a Second Lake Volunteer Day returns by popular demand on June 11, 2011.

Most 2011 Lake Initiative Projects are well-suited to Volunteer Day. Other projects will be on-going throughout the summer. Don't miss the fun! Participation in association activities is an important measure of commitment to Partridge Lake. Pitch in on Lake Volunteer Day and live a “perfect day”!

The Five Initiatives for 2011 are:

1. Septic System Improvements and Maintenance
2. Road Run Off Management And Roadside Ditch Maintenance
3. Shoreline Plantings, Fertilization and Erosion Management
4. The Lake Weedwatchers' Program
5. Annual Partridge Lake Volunteer Day and other Good Neighbor Efforts

Volunteer Day June 11, see page 2.

2011 Volunteer Day: Saturday, June 11th, 9:00 am - 2:00 pm

Volunteer Day
Saturday, June 11
9:00 am

Volunteer Opportunities



INITIATIVE ONE: SEPTIC SYSTEM IMPROVEMENTS AND MAINTENANCE

Initiative Leaders:

Albert Howes (603) 444-6187 or ahowes@roadrunner.com

Jeff Corey (603) 444-0451 or jacorey@jacorey.com

On Volunteer Day and at the Annual Picnic, a supply of information will be available concerning septic maintenance and installation, including folders that were distributed at the 2009 Septic Workshop. Albert and Jeff have gone through the septic updating process, know how to proceed, and can recommend places to go for further information.

INITIATIVE TWO: ROAD RUNOFF MANAGEMENT AND ROAD SIDE DITCH MAINTENANCE

Initiative Leaders:

Ed Warden (603) 444-2852 or home (603) 869-5441, or rewarden@roadrunner.com

Steve Hight (603) 444-2193

It has been a tough winter, so road sand cleanup will present a significant challenge. With a reduced work force, the Town of Littleton crew will be stretched to the limit to meet a timely cleanup schedule—before Memorial Day. The Town of Littleton does the heavy lifting with the roads first before PLPOA volunteers can effectively finish the task around the edges. A large team will be needed this year, according to Ed and Steve. Road sand is a significant source of phosphorous pollution.

INITIATIVE THREE: SHORELINE PLANTINGS, FERTILIZATION AND EROSION MANAGEMENT

Initiative Leaders:

Dayton Goudie (603) 444-2793

or dgoudie@roadrunner.com

Jayne Johns (603) 444-2639 or jracs@roadrunner.com

A Shoreline Planting Work Team will assemble on Volunteer Day, June 11. Native plant material will be available for planting at 3 or 4 sites around the lake. If you have a site you would like considered for team planting or if you'd like to work with the team that day, please contact Dayton or Jayne and/or show up at Dayton's camp at 9:00. Additionally, if you are beginning to make plans for your own planting, they could help with basic questions and direct you to resources.

INITIATIVE FOUR: THE PARTRIDGE LAKE WEED WATCHERS PROGRAM

Initiative Leaders:

Nancy Ernsberger (603) 444-7269 or cell phone (210) 887-2585 or nancyernsberger@gmail.com

Kate Vaughan (603) 444-2659 or kvaughan@gcscscc.org

Last year, eight teams of Weed Watcher Volunteers monitored portions of the lake for plant growth. Amy Smagula, who came last summer to train volunteers, will return on Volunteer Day to help with plant identification, arming volunteers with books and laminated plant identification cards. Any plants that we cannot identify, we can mail to Amy for identification. We are primarily watching for invasive plants such as the dreaded Milfoil, and encourage anyone interested to join in an official or unofficial capacity. The more eyes on the lake, the better!

INITIATIVE FIVE: ANNUAL PARTRIDGE LAKE VOLUNTEER DAY AND OTHER GOOD NEIGHBOR PROJECTS

Initiative Leaders:

Dave Ernsberger (603) 444-7269 or cell (210) 387-4627 or dernsberger@pop.net

Mark Meau (603) 444-6398 or home (603) 934-6320 or mwcmd@hotmail.com

Good Neighbor Projects were very helpful last year to several senior neighbors in getting their camps ready for summer. If you have neighbors you would like to receive help on Volunteer Day, contact Dave Ernsberger or Mark Meau. In addition to Volunteer Day efforts, you can contact them about putting together a team if someone needs helping hands later in the summer.

Stormwater Management for Homeowners

Concord, NH - The New Hampshire Department of Environmental Services has released two new tools to help homeowners better manage water running off their properties during storms.

The New Hampshire Homeowner's Guide to Stormwater Management: Do-It-Yourself Stormwater Solutions for Your Home provides fact sheets with step-by-step instructions to install stormwater treatment practices that homeowners can do themselves, such as dry wells and rain gardens. These stormwater treatment practices help protect nearby streams and ponds from water pollution, and help reduce flooding, create wildlife habitat, recharge groundwater, and conserve water resources.

The second tool, *The New Hampshire Residential Loading Model*, is a modeling tool for homeowners to estimate the amount of nutrients, specifically phosphorus and nitrogen running off of their properties.

As residents add driveways, walkways, home additions, sheds, or garages to their properties, the amount of water that seeps into the ground decreases and the amount of water running off their property increases. This can result in flooding and water pollution as the increased water flow picks up and carries pollutants such as phosphorus and nitrogen to nearby waterbodies or groundwater supplies. This model can help homeowners plan their

additions and changes to properties while reducing impacts to water resources.

According to Harry Stewart, DES Water Division Director, "Our intent is to provide homeowners and local building officials with a simple tool to identify cost effective ways to offset potential impacts to water resources."

Both resources are available at www.des.nh.gov by entering in "Stormwater Management" in the "search this site" at the top right of the DES home page. For more information please contact Eric Williams at (603) 271-2358 or at eric.williams@des.nh.gov.

PLPOA 2010 Happenings Around the Lake



**"If you build it
they will come.. "**

Photos:
Jere Eames
Sharon Hadwen

This was the first official year of Partridge Lake Pond Hockey—the perfect example of “if you build it they will come.” According to Jeff Corey, chief architect and maintenance-man, it was made within a rink liner, the skating ice was 3 1/2” thick, and made on top of the lake with a 6” top board. Perfect for pond hockey— about 8 solid weeks through the winter!

Open to everyone, pond hockey appealed to all age groups, especially the kids. This was a first-year experiment, not knowing how the rink would survive the snow and cold. It did very well, so next year it will be larger and better-lighted. “We are always looking for skaters,” said Corey.



Join us for our 2nd Annual Volunteer Day

Saturday, June 11th, 2011



Photos courtesy of Jere Eames from our 1st Annual Volunteer Day, Saturday, June 5th, 2010

For more information contact: Dave Ernsberger (603) 444-7269, cell (210) 387-4627 or dernsberger@pop.net, or Mark Meau (603) 444-6398, home (603) 934-6320 or mwcmd@hotmail.com

Animal Waste Pollutes the Lake — Who ME?

Continued from page 1.



➤ Inspect before you pump. Water in equals water out. Every gallon of wastewater entering the tank forces a gallon out into the leach field. Obviously, it is good sense to slow that process and not to overtax your system. But someone has to take a look inside. Over time, the scum and sludge layers within the septic tank get thicker, leaving less space in the septic tank for the wastewater to settle before passing to the leach-field. It can plug the septic tank outlet or be carried out to the leach-field, which is designed for clear liquid only. Excessive sludge and scum in the septic tank also reduces the amount of settling volume available and increases the amount of time it takes for effective separation from clear water.

Septic tanks should be checked for sludge and scum buildup every 1 or 2 years, pumped perhaps not each time they are inspected. When a septic tank is inspected for solids accumulation, the inspector may use an instrument called a "Sludge Judge®" or similar device to determine the amount of solids in the tank. The Sludge Judge® is a long, hollow, usually clear plastic pole marked in 1-foot increments. The bottom end of the pole has a check-valve on it that allows the wastewater and solids to enter but not leave, allowing a visual reference to what is inside the tank. The inspector inserts the pole into the tank until it touches the bottom. The instrument is then removed, and solids and liquid levels can be determined.

This allows the inspector to determine if it is time for the tank to be pumped. Septic system service companies generally provide pumping and testing services. Before having a septic tank pumped out, a sludge test should be done to determine if more frequent pumping is required. Septic system service companies also have camera-snake devices for internal inspection of the tank, piping and leach-field.

The first thing to be done for an inspection is to determine the location of the septic tank. Sometimes a sketch of the system is included with the original septic system permit and can be referred to for locating the septic tank. If no sketch is available, it is usually possible to locate the septic tank by using a metal rod to probe the ground. Once the tank is located, the hatch will need to be uncovered. In most cases, it is less expensive for the homeowner to locate and uncover the septic tank hatch prior to the inspector arriving.

Typical costs for septic service are:

Dye trace test	\$75 - \$100
Sludge/scum test.....	\$75 - \$100
Pump out tank	\$150 - \$300

Depending on tank size.

The best time of the year to test system capability is at the end of a high usage period – after summer in cottage country. It is also a good practice to have your system checked and pumped at different times of the year to establish high-use and low-use reference points – at the beginning and end of summer are good choices. The homeowner can learn a lot about the effectiveness of their septic system by recording key pieces of information from these service visits. Sludge and scum level thicknesses and the amount pumped out of the septic tank are good indicators of the health of a wastewater treatment system.

System Replacement

Once you have decided your septic system needs replacing, what next? There are system design considerations and contractors to be hired. Lynn Mayo (603) 787-6458, a DES-approved septic designer, has designed many of the systems around the lake. One could hire Lynn directly; however in most cases, she is retained by a full-service septic system installer, who also needs to be DES-approved. Full service installers typically offer sub-contracted design services and a complete installation, which provides customers single-source responsibility for the project. Installation costs can vary significantly based on system size, site conditions and access challenges.

What are the costs?

Replace failed leach-field	\$5,000 - \$7,000
Replace complete conventional system	\$9,000 - \$12,000
Replace non-conventional system.....	\$12,000 - \$15,000

Time's Up!

Septic system management is an important issue for the successful operation of any wastewater treatment system and for the health of our lake. Part of that management is having your septic tank inspected and pumped on a regular basis. If you need to replace your system, talk to neighbors about where and how to begin. Start saving, it's expensive! You will improve the value of your property in more ways than one. **A healthy lake is a large part of your property value.** ♦ —Albert Howes—

Amy Smagula Returns for Weed Watchers Workshop



Volunteer Day activities at Partridge Lake will see the return of a familiar face from NH Department of Environmental Services. Amy Smagula will speak to the Weed Watchers at 2:00 p.m. on June 11 at the Ernsberger camp.

Lake residents first met Amy when she was out and about working with Dayton Goudie and others for the Partridge Lake Watershed Diagnostic Feasibility study from 1999 to 2001.

Amy started working with the Department of Environmental (DES) Services Biology Section during the summer of 1996 as an intern. After doing a second internship during the summer of 1997, she accepted a fulltime position with DES as a freshwater biologist coordinating both the Exotic Species Program and the Clean Lakes Program.

As Exotic Species Program Coordinator, Amy now works almost exclusively on exotic species issues, which have become a critical issue in many New Hampshire waterbodies. "Thankfully not to Partridge yet," she says, welcoming a chance to help residents avoid the problem.

"Partridge Lake will always be near and dear to me," she said recently about her forthcoming visit. "I enjoyed my time studying the lake and spending time with local residents that love the lake." She added that she used the data as a basis for her Master's program at UNH.

Volunteer Day, June 11, is the second annual occasion for lake residents to work jointly on projects of their choice furthering the health of the lake. ♦

Treasurer's Report

This year 54 camps paid dues out of 75. We would love to see more participation because that is our only source of revenue.

Balances for 3/31/11	
General checking account:	\$1,714.84
Savings Account	\$25,213.95

We have two local septic tank service companies:
Schofields Septic Tank Service, Lisbon (603) 838-6028
White's Septic Service, Dalton (603) 837-2728



Spotlight on Volunteers

Current officers and board members are listed below. New officers and board members will be elected at the annual meeting from a slate offered by the board. Nominations should be forwarded to board members before their first meeting, June 18, 2011.

Board of Directors

Cathy Parker	President
Mark Meau	Vice President
Dave Ernsberger	Secretary
Judy Warden	Treasurer
Jeanne Burdette	Albert Howes
Jill Corey	Jayne Johns
Florence Fogelin	David Merrill
Eileen Goodrich	Pam Parker
Glen Hadwen	Kate Vaughan

**Thanks to our 2010
Annual Family Picnic Hosts**
The Allen Family

Photos

Jere Eames
Sharon Hadwen

New Lake Residents

Jim & Reinette Hutchins
Thomas & Dawn Norris
Chip & Lisa Stowell

Mark your calendar!

Saturday, June 11, 2011

Volunteer Day
Various locations 9:00 am - 2:00 pm

Saturday, June 18, 2011

Board of Directors Meeting
Johns camp 9:00 am

Saturday, July 2, 2011

Annual Family Picnic
Eames Annex 11:30 am - 2:00 pm

Saturday, July 30, 2011

PLPOA Annual Meeting
Ernsberger camp 9:00 am

Saturday, September (TBD)

Board of Directors Meeting TBD

PARTRIDGE LAKE
PROPERTY OWNERS ASSOCIATION
Littleton, N.H. 03561



Pet Peeves

A dog may be your best friend, but don't let your dog foul your neighbor's lawn. Once it becomes a favored spot, he and other dogs will return, again and again. Not pleasant! Compost piles can become an attractive nuisance. Keep them protected, and dogs will not bother them...or you.

We initiate here a new column for the PLPOA newsletter: a gentle reminder to neighbors about things found annoying. For suggested future "pet peeves," call or write Florence Fogelin, editor.

For more than 20 years, the same smiling face has welcomed members to the picnic with a sweet reminder that dues should be paid to the Partridge Lake Property Owners Association.

JUDY WARDEN is an extraordinary volunteer for the association, one who—together with her husband, Ed—is so much a part of it that one can hardly imagine PLPOA without thinking of them. Whether it is because of the location of "Hatetoquitit" (more about the name later) and their friendliness, or because they have served as volunteers at the lake since—well, since before there was an "association"—Judy and Ed Warden are recognized with this "Spotlight."

Taking in the money, spending the money, keeping the records, making reports, informing other officers (who changed while she remains), staying in touch with far-flung residents: it's all the job she and Ed have done seemingly forever. With the association's added funds and activities with water quality issues, the job of Treasurer has become increasingly complex and demanding. Judy, with Ed's help, is a year-round, not just a summer, volunteer.

In addition, our Partridge Lake shirts, sweatshirts, and hats were their idea; they do the work of ordering, selling, storing, and keeping track of the inventory.

Judy Eaton Ward has summered at the lake since she was a child. The sign at the cottage, "Hatetoquitit," was there when her parents bought it in 1921. Stolen in 1979, the sign mysteriously re-appeared in 2000 and resumed its place at the camp where she and Ed summered, raised their children, and where her grandchildren now play. Their son, Todd, has the camp next door.

When you give her your check this year (see the envelope attached to this newsletter) add a "Thanks, Judy and Ed, for all that you do." ♦

