



# News from Crystal Lake Conservancy

May 2011

The Crystal Lake Conservancy is dedicated to the preservation and protection of Crystal Lake for the benefit of the public by promoting and supporting the unique natural beauty and enjoyment of the Lake.

## Watershed Survey to Begin – Volunteers Needed

This summer, the Crystal Lake Conservancy will carry out a survey of the Crystal Lake watershed with the help of volunteers. We will walk the streets of the entire watershed and make notes on storm water drainage, vegetation, erosion, land use, and the storm drainage system. The primary objective of this survey is to develop a baseline understanding of how storm water moves through the Crystal Lake watershed, including locating potential pollution problems in the watershed. A second and equally important objective is to help the watershed community understand how land use influences lake water quality.

The Crystal Lake watershed includes all the land that drains its water into the lake through street storm drains, over land, and/or through ground water. The Crystal Lake Conservancy website ([CrystalLakeConservancy.org](http://CrystalLakeConservancy.org)) features a map of the watershed for reference. This map shows both the topographic watershed—the area that slopes toward the lake, as well as the storm drainage basin—the area from which street storm drains empty directly into the lake. Since Crystal Lake is not spring fed, all of the new water it receives arrives from rainwater and snow melt from all the land in the watershed through the street drains and/or by soaking into the ground and entering the water table. As storm water flows over driveways, lawns, sidewalks and streets it picks up debris, chemicals, dirt and other pollutants that may end up in Crystal Lake. This is called nonpoint source pollution. The pollutants carried in storm water runoff may include nutrients like phosphorus and nitrogen, biological matter (viruses and bacteria), and toxic substances like heavy metals. The volume of storm water and the amount of pollutants in the runoff depends on how land throughout the watershed is being used. In urbanized areas rain that falls on built up or paved (impervious surfaces) often runs overland or through storm drains directly to a lake without the benefit of natural ground filtration.

The data collected from surveying the entire watershed will be analyzed. This data will be tied to outfall testing (points where street runoff drains into Crystal Lake) and our ongoing lake water testing. We will use this data to identify and clarify any issues we need to be aware of in caring for the lake in the years ahead.

If you can volunteer to help, please contact Simone Taubenberger at [simpetra@yahoo.com](mailto:simpetra@yahoo.com).

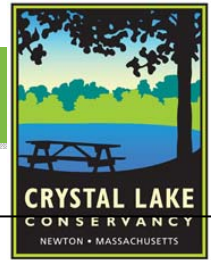
**VOLUNTEER APPRECIATION RECEPTION AND TRAINING--SUNDAY, JUNE 26, AT 1-3pm.**  
**SEE DETAILS ON WEBSITE at [www.CrystalLakeConservancy.org](http://www.CrystalLakeConservancy.org).**

## CLC Supporters Met the Challenge-Thank You!

During the Fall 2010, Lake Ave. resident David Putnam issued a \$5,000 challenge grant to all supporters of the Crystal Lake Conservancy and their friends. Thanks to CLC supporters' generous contributions, we are happy to report that this challenge has been met!

Using these funds, the CLC can begin water testing over the spring and summer, which will be a critical step toward identifying solutions for the continued health of the lake. Additionally, we will be conducting a ground survey of the watershed to assess storm water systems, fertilizer applications, pesticide uses, and any other land uses within the Crystal Lake Watershed that may potentially affect the water quality of Crystal Lake. The Crystal Lake Conservancy will then create an educational watershed management plan that will address such items as an improvement of land use practices as well as storm water management as necessary to improve recharge, reduce suspended solids, and reduce any contaminants that may be flowing from non-point source basis into Crystal Lake.

Even though the challenge has been met, we are still in need of funds to continue this important work. Please consider donating. Any level is greatly appreciated and is 100% tax deductible.



## Join the Crystal Lake Conservancy

Keep informed and help to sponsor our environmental testing and our work for a healthier lake!

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Telephone Number: \_\_\_\_\_

E-mail Address: \_\_\_\_\_

I am paying by  enclosed check

Please note: If paying by credit card, please go to [www.CrystalLakeConservancy.org](http://www.CrystalLakeConservancy.org) and use the Paypal link.

- |  |   |
|--|---|
| <input type="checkbox"/> Individual membership (\$40)  | <input type="checkbox"/> Patron membership (\$500)                |
| <input type="checkbox"/> Family membership (\$75)      | <input type="checkbox"/> Non-profit membership (\$100)            |
| <input type="checkbox"/> Supporting membership (\$150) | <input type="checkbox"/> Corporate membership (\$1000)            |
| <input type="checkbox"/> Sustaining membership (\$300) | <input type="checkbox"/> Conservation Council membership (\$5000) |

If you wish to pay by check, please send your membership and contact information to:  
The Crystal Lake Conservancy, PO Box 610038, Newton Highlands, MA 02461

Help us stay green AND save paper and printing costs—sign up for our electronic newsletter by going to our website at [www.CrystalLakeConservancy.org](http://www.CrystalLakeConservancy.org)

**Volunteers Needed for Lake Water Testing**

We will need volunteers again this summer utilizing a rowboat on the lake for temperature and visibility readings.

We will also need volunteers to collect water samples for laboratory testing from outfall areas.

If you are willing to spend a few hours working with another volunteer, please contact Jean Artin at [jeanartin@rcn.com](mailto:jeanartin@rcn.com).

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**Newton Highlands Village Day – June 12<sup>th</sup>**

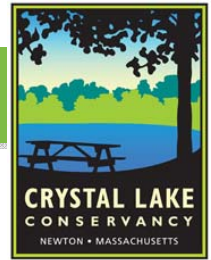
Come see us at our booth at Newton Highlands' Village Day! Learn more about the Conservancy's efforts, sign up to volunteer and browse through our merchandise.

**Ice Trends on Crystal Lake**

Have you ever thought about where and when the last remnants of wintry ice linger on Crystal Lake? CLC Board Member Dr. Srdjan Nedeljkovic has been faithfully recording "Ice-In" and "Ice-Out" dates for Crystal Lake since the winter of 1992-93. By looking at Ice Out records that have been published for nearby lakes, he has put together a chart of estimated Ice Out dates for Crystal Lake dating back to 1886.

The "ice-in" date is the date on which ice is first observed on Crystal Lake, whereas the "ice-out" date is the date on which the ice completely disappears from its surface. This year, Nedeljkovic reports that the "ice-in" date was December 16, which is 13 days earlier than the 12-year average (December 29) and is the 4th earliest since 2000. The "ice-out" date was March 21, which is five days later than the 12-year average date (March 16) and 4th latest since 2000. Altogether, the lake was frozen for 96 days, which is the 3rd longest duration of ice on the lake in the past 12 years.

You can see the full text of his report, the charts and tables for "ice-in" and "ice out" dates for Crystal Lake since the winter ending in March 1993, along with the duration of ice cover on our website at [www.CrystalLakeConservancy.org](http://www.CrystalLakeConservancy.org).



## Dog Waste in Storm Drains runs into Water Systems

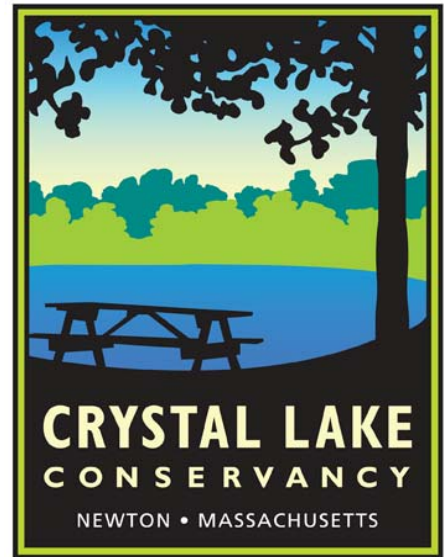
If you take a close look at the grates for the storm drains throughout the city, you will note small plaques that say “Don’t Dump! Drains to stream” Or “Don’t Dump! Drains to Crystal Lake.” Rain water along with any impurities runs across our lawns and streets, enters the drains, flows through underground pipes, and within hours empties into Crystal Lake, the Charles River and the water systems that drain into it. One source of pollution is easy to control: dog waste left on the ground near storm drains and bags of dog waste that are dropped into the grates of the storm drains.

Maria Rose, Newton’s Environmental Engineer reports, “The Department of Public Works often finds bagged dog waste inappropriately deposited into our storm drains.” Larry Beals of Beals Associates, a local engineering and land-use consultant, describes a recent project in another city, “The stream had a number of storm water discharge points up-stream where storm water run-off that was collected in the Town’s system was discharged to the stream. In some stretches, the stream had undercut its embankment exposing a number of tree roots. These roots created a screening effect for various items from the storm water as it flowed in the stream channel. While performing a survey, we observed literally hundreds of blue bags full of dog feces were bags trapped within the roots, not to mention the ones that actually made it into this other lake.”

Ms. Rose explained that Public Works often discovers dog-waste bags when they test the storm system’s outfalls to the Charles River and our streams for a variety of pollutants. When they get high readings of E coli, their first investigation is to check the catch basins upstream to see whether the readings are caused by dumped dog waste. Unfortunately, this is frequently the cause of the bacteria in the water. Thus, putting the bags into the drains not only endangers the quality of the water in such places as Crystal Lake and other waterways but also costs the city time and money to track down the problem.

Dog waste that enters our waterways can pose a danger to humans: not only E coli (for which the city routinely tests) but also campylobacter, streptococcus, salmonella, and worms can be found in dog waste and can be transmitted to the water where people swim. Once it is in the water, dog waste begins to decompose utilizing oxygen from the water, which is crucial for fish and plant life, and converting the nitrogen from the waste into ammonia, which is toxic to fish. Algae thrive in that environment and further degrade the water quality.

What are the solutions to this problem? First, we need to help to educate Newton residents--and dog owners in particular--about how our storm drains work. The Clerk’s Office has post cards (“Please Scoop the Poop!”) for owners renewing their dog licenses as well as “Make the Connection! Storm Drains empty into Waterways!” for neighborhoods where large quantities of dog waste are found in storm drains. Two strategies for further consideration are marking storm drains with a more explicit warning not to dispose of pet waste in the drains and increasing the number of “waste baskets” in public places. San Francisco has an “Only rain down the drain” campaign and has installed nets in storm drains to catch waste. The City of Newton should consider adopting this approach as well.



### Enjoy Our Logo While Helping the Crystal Lake Conservancy

|                    |      |
|--------------------|------|
| Swim Pass Lanyards | \$ 3 |
| Shopping Bags      | \$ 5 |
| Pins               | \$ 5 |
| Mugs               | \$10 |
| 12” x 18” posters  | \$10 |
| Water Bottles      | \$15 |
| Logo T-shirts      | \$15 |

Sizes:

ADULT: Sm, Med, Lg, XL

CHILD: Sm, Med, Lg, XL

To purchase any of these items please visit **CLC Merchandise** on our website home page at [www.CrystalLakeConservancy.org](http://www.CrystalLakeConservancy.org).



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## Future Plans for Walkway, Parkland and an Improved Bathhouse

If you've walked the western shore of Crystal Lake you are familiar with the Louise Levingston Cove and adjacent parkland. For many years, this area and the narrow strip of lakeside known as Cronin's Cove were the only two small public access parks on Crystal Lake. In the early 1900's, the City of Newton developed the strip of land next to the Boston & Albany railroad and established a public beach at the southern corner of the Lake. The property itself is less than 100 feet wide—not much for the many residents of Newton looking for an opportunity to get into the cool water on hot summer days. Historically for many years, 20 Rogers Street owners had allowed swimmers use of the lakefront adjacent to the stone wall and north of the Bathhouse during the swim season. 20 Rogers Street was acquired by the City in 2007, becoming new open space and a public park. Mayor Cohen led the effort to secure the future of expanded access to public swimming and appointed a Task Force to study ways to preserve the landscape and consider future improvements to the site.

Shortly thereafter, Lorraine Sciegienny, owner of Spanish-style lakeside residence at 230 Lake Avenue placed her property up for sale. Her family had constructed a pergola walkway and a cascading stone fountain at the eastern side of the lot that remains there to this day. A proposal emerged to connect the public parkland from Levingston Cove to the Bathhouse. With support from Mrs. Sciegienny, the City was able to purchase a permanent easement along the edge of the water, as well as an additional 8,000 square feet of wooded land, to add to the publically accessible open space at Crystal Lake. By agreement, the owners of the 230 Lake Avenue property grant the public the use of land adjacent to the lake between Levingston Cove and the new park adjacent to the Bathhouse.

While the City considers its next steps for the 20 Rogers Street parcel and bathhouse, a compacted gravel walkway was constructed behind 230 Lake Avenue to facilitate current public use. The Master Plan for the area, completed in 2009 by the Crystal Lake Task Force, includes the continuation of this walk to the Crystal Lake beach area, and proposes a new and improved Bathhouse facility. The full report of the Task Force is available on our website at [www.CrystalLakeConservancy.org/About Us/Vision for the Future](http://www.CrystalLakeConservancy.org/About%20Us/Vision%20for%20the%20Future). The Conservancy will continue to advocate for the completion of this plan. In the years ahead, the Crystal Lake Conservancy looks forward to working with the many Newton residents who have enjoyed Crystal Lake and the City of Newton in preserving and improving this precious place so it will serve all of Newton's residents for many years to come.



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