



Newsletter of

The Skaneateles Lake Association, Inc.

For all those who have a stake in the Lake

Summer 2016

A View South!

THE SKANEATELES LAKE ASSOCIATION

Invites Current and New Members to its

2016 Annual Meeting

Sunday, July 10 - 5pm to 7pm

On the waterfront at the home of Elsa & Peter Soderberg
118 East Genesee Street in the Village of Skaneateles

Robert Duckett will give a presentation on
The Threat of Hemlock Wooly Adelgid to Skaneateles Lake Water

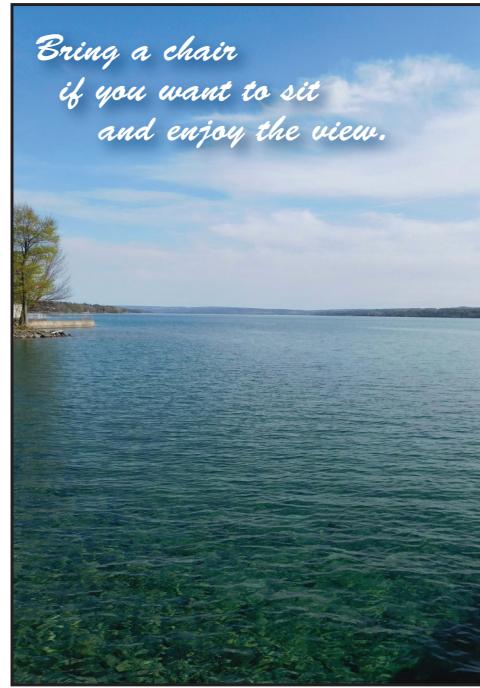
Parking is available in the Parking Area next door, 130 E. Genesee St.

RSVP via the "Contact Us" tab at SkaneatelesLake.org or by calling 685-9106.
Please include names of all who will attend, telephone numbers and email addresses.

Go home knowing that your membership makes a difference.

2016 Annual Membership Registrations will be accepted at the door.

*Bring a chair
if you want to sit
and enjoy the view.*



Skaneateles Lake: Pristine Forever?

Recent reports from Flint, Michigan and Toledo, Ohio have reminded us of the fragility of municipal water supplies. Syracuse and many surrounding communities that purchase water from the city of Syracuse are fortunate to have a relatively pristine water supply from Skaneateles Lake, which provides high quality drinking water for Syracuse and many surrounding communities that is currently clean and safe. The question needs to be asked, however, "How long will this last?".

We in the Skaneateles Lake Association (SLA) are concerned about current trends in the lake and

their possible impact on the quality of the water. Here are some of the issues:

Invasive Species

Eurasian watermilfoil is now established in Skaneateles Lake. It is found in large dense stands near the mouth of tributary streams where it blocks the movement of silt laden runoff into deeper water, retaining it in the near shore area. The roots of the plant extract nutrients from the silt, transporting them up into the growing plant from which they are ultimately released into the water as the plants later die and decay. The net effect is the addition of significant amount

Robert W. Werner Ph.D.

of nutrients into the pristine water of the lake potentially leading to algal blooms and increased turbidity.

Turbidity is important. The city of Syracuse is fortunate in having a filtration waiver from the EPA which allows them to draw water from the lake, treat it with ultraviolet radiation and then dispense it to its customers. As it currently stands there is no need for filtration or any other more expensive treatment. One of the key criteria used by the EPA to judge whether this waiver will be rescinded is turbidity, both the amount of turbidity and the frequency of high turbidity levels.

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SLA Board of Directors: Paul F. Torrisi, M.D., President - Buzz Roberts, M.D., Vice President - Dessa Coling Bergen, MLS, Secretary - Robert G. Werner, Ph.D., Treasurer - William Dean, Ph.D. - Jed Delmonico - Robert DeWitt - Charles Driscoll, Ph.D. - Fran Fish - Joseph Grasso - Bill Hecht - Joseph M. Hennigan - Deborah M. Hole - Richard D. Hole, Esq. - Robert Liegel, Esq. - Larry L. Rothenberg, Esq. - William R. Sawyer, Ph.D. - Mary Sennett - James Tiffet, M.D. - James Tuozzolo

Advisors/Committee Chairpersons: John Menapace (Milfoil Eradication Project) - Mary Menapace (Chair-Hydrofracking Committee)

News Letter: Editors: William Dean - Fran Fish **Staff:** Buzz Roberts - Robert Werner

Skaneateles Lake: Pristine Forever?

Robert W. Werner Ph.D.

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As it currently stands without a treatment plant, it is impossible to treat water should it deteriorate. All of us who use the lake as our source of drinking water are completely dependent on proper management of the lake in order to keep it clean and free of pollutants. Thus, it is imperative to insure that the supply is pure. Withdrawal of the filtration waiver will require the city to construct a water treatment plant at a cost of approximately 80-100 million dollars.

To address the milfoil problem, the SLA has raised over 2 million dollars to get the milfoil population under control and to keep it under control. Most of the funds (95%) have come from private donors. The state, Onondaga County and the Town of Skaneateles have contributed the rest. To date efforts of the SLA have reduced the milfoil population by over 90% from what it would have been if action had not been taken. Milfoil is not the only invasive species threatening Skaneateles Lake. In Cayuga Lake, another invasive species, Hydrilla, has been found and poses serious risks similar to, but greater than milfoil, if it were to become established in Skaneateles Lake.

Nearby, in Owasco Lake, there is a large population of Asian clams which could easily be transported into Skaneateles Lake. They would also increase nutrient levels adding to the risk of increased turbidity. Round gobies are abundant in Lake Ontario and other waters in central New York.

All of these species present risks to the stability of the pristine ecosystem of Skaneateles Lake. To prevent the introduction of these and other invasive species into Skaneateles Lake the SLA has initiated a lake steward program that will help educate the public about the risks associated with invasive species

getting into the lake. SLA stewards, stationed at major launch sites on the lake monitor boat traffic at the major launch ramps and assist boaters to inspect and clean watercraft and trailers. The stewards promote the principle of all watercraft and trailers being clean, drained and dry before launching. This program has been in existence for four years and has inspected nearly 11,500 boats during that time.

Ecosystem Effects

The reason that we are concerned about invasive species is that in lake ecosystems everything is in one way or the other related to and often dependent upon everything else. For example, milfoil facilitates increased nutrient levels in the lake which in turn facilitates algal growth. Algal growth leads to increased turbidity with major effects on the filtration waiver.

While the Town of Skaneateles has been monitoring the lake since 2007 and the results indicate that the lake is still in good condition, small algal blooms have been appearing over the last few years in amounts not seen before. These are not harmful toxic algae as was the case in Toledo, but may be an indicator of increasing nutrient levels entering the lake.

In addition, residents along the lake have noted a significant increase in foam accumulating in quiet bays and along the shoreline in recent years. The causes of this are as yet unknown, but this is also raising concerns.

While we have benefitted by having such a wonderful source of pristine water it will not continue indefinitely without careful attention.

Economic Impacts

There are also economic impacts that go beyond the lake serving as a water supply. It is an economic engine for the communities associ-

ated with it. A variety of businesses are dependent on the lake, such as marinas, restaurants, shops and stores. The lake and more specifically the homes on the lake are a major contributor to the tax base of the municipalities surrounding the lake. For example, lake front property and property with lake rights comprise about 20% of all assessed property in the town of Skaneateles. Studies have shown that heavy weed beds such as would occur with an uncontrolled milfoil infestation tend to reduce the value of lake front property when weeds prevent use of the near shore area. The reduction in assessed value is estimated at 15-20% compared to lakefronts without excessive weeds. Thus, as invasive weeds such as Hydrilla or milfoil spread, we can expect a reduction in value of lake front and lake rights property and a subsequent reduction in the total assessed value of those properties for municipalities of approximately 3 to 4%. If that were to occur local municipalities will either have to reduce services or raise the tax rate to make up the shortfall.

Bottom line: We need to continue to be vigilant and proactive in order to protect this lake and maintain its use as a water supply. This responsibility is shared by the municipalities that use the lake as a water source, the businesses that benefit from the lake that attracts hundreds of thousand visitors every year, and the property owners that live on the lake or have deeded access to the lake. **Being a part of the efforts of the SLA by being a member whose annual dues support our efforts should be a serious consideration for every member of the lake community and every municipality that benefits from the pristine water of Skaneateles Lake and the huge financial benefit of a water supply that does not require filtration.**

Foam, Runoff and Lake Health

Bill Dean Ph.D. and Robert G. Werner Ph.D.

Our efforts to understand the causes of increased foam in the lake have, to this point, been focused on one main hypothesis: the rise in foam being related to the natural cycles of one or more organisms residing in the lake and changes in the watershed resulting in more organic input into the lake. Our initial approach has been to analyze surface foam, looking for chemical indicators of its origin. We then identify within this fingerprint organic molecules known to disrupt the lake surface membrane facilitating foam development. Previous studies have shown that synthetic surfactants (soaps, etc.) are not observed in our analyses suggesting other causes. Although numerous other natural surfactant molecules have been observed, none clearly point to a particular cause. To complicate our analyses, bacteria found on and just below the lake surface, and thus in foam, feed on the organics contained, disguising their original sources. In September 2015 additional samples of foam were taken and submitted to Dr. John Hassett's SUNY ESF laboratory for GC-Mass Spectroscopic analysis over the winter. In addition, we took samples of zebra mussels and lake weed to obtain fingerprints of their composition as well. Analyses are ongoing with specific focus on indicator sterols and fatty acids.

What is beginning to emerge from our efforts, and from those of others on other lakes, is an integrated view of the lake as a dynamic system fed by, among other things, nutrients and organic

matter from watershed runoff. More nutrients flowing into the lake can mean more life and more organic materials in the water and at the surface. The organisms living in the lake, through their life cycles, add to and modify the overall organic composition of the water. These organics contain natural surfactants, which affect the surface properties of water, and in combination with surface turbulence, result in the production of lake foam. In a way, increases in foam are likely an indicator of increased biological activity in the water column. Thus, it is not unexpected that all organisms can contribute to foam production on the lake.

The Town of Skaneateles' Lake Monitoring Committee has initiated a project to monitor the flow of runoff and its composition into the lake. Their initial study began this spring on Shotwell Brook on the east side of the lake. The effort is being carried out by the Upstate Freshwater Institute with funding from the Town of Skaneateles. Data is being gathered by a sonde, placed in Shotwell Brook containing instruments, which measure water flow, turbidity, temperature and conductance. Samples are also taken for analysis including that of nutrients and total organics. Measurements beginning in March are showing that significant rain events result in increased water runoff with concomitant increased turbidity flowing into the lake. Data will be gathered into October. It is hoped that other watercourses can be studied in the future.

Skaneateles Lake Association, Inc. Membership Registration Form

Name _____ E-mail Address _____

Street _____ City _____ State _____ Zip _____ Phone _____
(Enter winter contact information below, if different.)

Street _____ City _____ State _____ Zip _____ Phone _____

Family: \$100 Individual: \$50 Other \$ _____

Milfoil Boat Sponsor & Membership: \$1,000 Milfoil Boat Co-sponsor & Membership: \$250

Lake Steward Sponsor and Membership : \$175

Please make checks for your membership dues and any donations payable to the **Skaneateles Lake Association, Inc.**

Mail your membership application and check to: Skaneateles Lake Association, Inc., P.O. Box 862, Skaneateles, NY 13152

You may also join the SLA, pay your dues and make donations at: www.SkaneatelesLake.org

Skaneateles Lake Association, Inc.

P.O. Box 862

Skaneateles, NY 13152

Clean, dry and drained..... It is now the Law!

Buzz Roberts

For the past 4 years our SLA Invasive Species Monitoring Stewards have been educating those who launch any type of watercraft into Skaneateles Lake about the importance of all watercraft and trailers being clean, dry and drained before launching. On duty at peak times at the NYS, Town of Skaneateles and Town of Scott launch sites the SLA Stewards are now into the 5th year of working with those who come to launch to ensure they understand the importance of clean, dry and drained before launching into Skaneateles Lake or any body of water. The SLA Stewards also work with the watercraft owners to clean boats of any animal or vegetable material that may be on them before the watercraft are launched. The cooperation of the public in this program has been great.

As of May 30, 2016 we moved into a new era because now NYS Law prohibits anyone from launching into any New York State body of water with any vegetable material on the watercraft or trailer. For this first year of the enactment of this legislation the enforcement will involve only warnings, but there is legislative provision for fines in the future -\$250 for the first incident and \$500 for the second incident. In this new environment of regulation our SLA Stewards become even more important. They will continue to be helping those who come to launch ensure that their watercraft and trailers are clean, dry and drained. They will also be emphasizing to all who come to launch the new legislation and what it means in regard to boater responsibility. Our SLA Stewards will not be enforcers....as in the past their role will continue to involve helping those who use the launch sites they know why it is important to do the right thing. In addition, the Stewards will now be ensuring that those who come to launch understand the law and its application, not only to Skaneateles Lake, but to every NYS body of water.



Elyse DuBois in the new SLA Steward Uniform on duty at the State Boat Launch

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New Banner on the Milfoil Work Boats

Our Milfoil Work Boats have new banners donated by one of our members. The banners not only tell everyone who sees them what the boats and crew are out on the lake doing, but also emphasize that joining the SLA keeps the boats and crew on the job!



join
now @

MILFOIL CONTROL
PROJECT
SkaneatelesLake.org