

#### Spring 2009

#### www.saturdaypond.org

**Issue # 18** 

### OUR MISSION

1. To perform all acts appropriate to a non-profit scientific, literary and educational corporation dedicated to the promotion and development of environmental quality standards;

2. To preserve, enhance and protect the advantages of Saturday Pond and its environs. \*\*\*\*\*\*\*\*\*\*

#### **BOARD OF TRUSTEES**

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#### Message from our President,

Dear Friends and Neighbors,

This past year has flown by despite its many trials, tribulations and accompanying uncertainty. When it comes to Saturday Pond, however, there are a few things that we know with certainty. That is that - the ice is out, our loons are back and before you know it we'll all be enjoying those crisp blue skies of summer, our tall pines whispering in the wind and the crystal clear waters of our beloved lake. Another thing we know for certain is that the date of the Annual Meeting of the Saturday Pond Watershed Association is fast approaching. We hope you will be able to join us on **Saturday, July 11<sup>th</sup> at 9:00 AM on the Pond View Beach.** You could be the lucky winner of a free subscription to Cabin Life magazine! For those of you who have joined our association in the past, we appreciate your patience as we wait for the new version of <u>The Lake Book</u> (complete with CD and a special brochure on the Common Loon) to become available.

I am pleased to inform you that that this edition of our newsletter sports the new logo of the Saturday Pond Watershed Association. Many thanks to Jennie Williams for her creative and thoughtful design. I am also happy to report that the final report of the Saturday Pond watershed survey can be found at our newly renovated website @ <u>www.saturdaypond.org.</u> This report summarizes our findings and serves as the first step in a long-term plan to address erosion and polluted runoff problems in the Saturday Pond watershed. Again, our many thanks go to those members of the SPWA that contributed to this project - Carl Anderson, Bruce LeBlanc, Eric Groves, Eric Arnold, Steve Markarian, Greg Milos, Gordon Peaco, Jacinthe Sirois, Eric Williams, Ruth Wilson, Heather Germadnik from Oxford County Soil and Water Conservation District and Kristin Feindel and the rest of the DEP staff.

Inside this issue, you will find a number of articles about Saturday Pond's water quality and the things that we can do to ensure that we maintain our pond's high water quality. An important factor to remember, especially during the summer months, is that boaters staying outside of floats and 200 feet from the shoreline can go a long way towards preventing erosion and protecting Saturday Pond!

On behalf of the Board of Trustees, I wish you a happy and healthy summer! Sincerely,

Ellen Ottoliades Ellen Attaliades. President

# The Link Between the Saturday Pond Watershed and Its Water Quality

By SCOTT WILLIAMS (Maine Volunteer Lake Monitoring Program)

The water quality of Saturday Pond is considered to be "slightly above average" by the Maine Volunteer

Monitoring Program and Maine Department of Environmental Protection. Our definition of water quality, in this case, is tied to the watershed, because the greatest potential threat to the health of Maine lakes is watershed development.

This is not to say that other threats, such as invasive aquatic species (aka the "milfoil" threat), fish contaminated with mercury, bacterial contamination, and others (including global climate change) are not significant concerns, because they certainly are. But watershed development, and the resulting potential for lakes to become enriched with phosphorus, resulting in excess algae growth, reduced water clarity, declining oxygen levels, impact to the lake's biological community, and other effects, is still the most pervasive issue for Maine lakes.

When we think about a lake or pond, our thoughts should always include the watershed, because a lake and its' watershed are interconnected physically, chemically and ecologically. The basic characteristics of lake water quality are determined by the watershed. Watershed area (size), soil types, slopes, and other natural factors have a strong bearing on conditions in the water. These natural factors are affected by the changes that occur through watershed development, as the soil is disturbed, vegetation is removed, and hard surfaces, including roads, buildings, lawns and others replace the natural environment.

The Saturday Pond watershed measures 1.3 square miles in area. It is contained within the larger watershed for neighboring Thompson Lake, along with Moose and



Sand Ponds, which also drain to Thompson. The size of the watershed, relative to the area and depth of Saturday Pond, determines the rate at which water is replaced, or "flushed" through the pond annually. On the



Credit the UW-Extension Lakes program.

average, Saturday Pond flushes about once every year. In comparison, Thompson Lake takes nearly five years to completely flush. This natural characteristic has a bearing on the sensitivity of individual lakes. Those that flush more slowly also retain pollutants like phosphorus for a greater period of time.

Fortunately, the effects of watershed development can be measured relatively easily through a simple test to determine the clarity of lake water. Trained volunteer lake monitors have been measuring the clarity of Saturday Pond since1984. The information they have gathered, along with additional sampling conducted by VLMP and DEP staff, has enabled us to determine that the water in Saturday Pond is slightly clearer than the "average" Maine lake. Relatively low algal growth and high levels of dissolved oxygen also confirm

the good quality of Saturday Pond.

Thanks to volunteer monitors Henry Anderson, Eric Groves and Ruth Wilson for the time and commitment that they are making to help us learn more about the pond. The information that they gather is the cornerstone for stewardship efforts for Saturday Pond and its watershed.

# Why Phosphorus Is A Problem In Our Lakes & Ponds

By Lew Wetzel

Phosphorus (P), the 15<sup>th</sup> element on the periodic table with an atomic weight of 30.974, is an essential nutrient for all life forms. Phosphorus is the eleventh-most abundant mineral in the earth's crust and does not exist in a gaseous state. In the natural world phosphorous is never encountered in its pure form, but only as phosphates, which consists of a phosphorous atom bonded to four oxygen atoms.

Phospha Look for te is a Phosphorus Free dietary Fertilizer i.e. with a requirem "0" as the middle ent. The number. Example: recomm ended intake is Fertilizer 800 mg/day. XYZ A normal diet provides 10**-0**-4 between 1000 and 2000

mg/day, depending on the extent to which phosphate rich foods are consumed.

Humans have changed the natural phosphate supply radically by the addition of phosphate-rich fertilizers and manures to the soil and by the use of phosphate- containing detergents. Phosphates settle into our water bodies through erosion, construction where the terrain has been disturbed and seepage from septic systems. The bottom of the lake could contain various amounts of phosphates that are covered by material mixed with it when it was deposited there. These phosphates need to be oxidized to be harmful. Any activity that disturbs these deposits could cause problems.

An increase in phosphorus concentration in lake water raises the growth of phosphate-dependent organisms, such as algae and duckweed. These organisms use large amounts of oxygen and their growth prevents sunlight from reaching the native plants. This causes the water to become fairly unlivable for plants and fish. If left unattended, the water body will degenerate to a "dead" lake. Once this process passes a point, it is an almost impossible task to bring the

water quality back to a usable state and would take many years.

How much phosphorus can we tolerate in our water? An excellent level is 3 parts per billion - a good level is 6 parts per billion - an acceptable level is under 10 parts per billion - a poor level is below 15 part per billion and above 15 parts per billion you are in trouble and start praying. Each year during the month of August a sample of the water from the same area should be collected and sent to the University of Maine for analysis. Even if previous readings indicate no problems, vearly readings should be continued because small changes can be detected making early corrections possible. All of the Phosphorus reading I have taken since 2004 have been 5 or 6 parts per billion which is very good.

Over the past few years, I have had the opportunity to work in a number of lakes in southwestern Maine. Saturday Pond is one of the best – give it loving care and it will reward you.

# Cleaning Products And The Lakes

By Pixie Williams Plant Systemalist

Can cleaning products affect my lake? Surprisingly, they do. We often hear that Phosphorus has a deleterious effect. The term "phosphorus" is not completely accurate. Phosphorus is one of our chemical elements found in the Periodic Table and is here to stay. However, it is the salts of phosphorus or the phosphates, which give us lake dwellers concern.

Phosphates are excellent fertilizers. When you buy a bag of chemical fertilizer, one of the three main ingredients is phosphate. Phosphates also have cleansing powers, and in the recent past, they were used as an important ingredient in cleaning products. However, we don't want phosphates to leach into our lakes for they will fertilize all plant life, produce unwanted algae blooms and encourage proliferation of all other aquatic vegetation!

So, read the labels of your dishwasher detergent, laundry detergent, general cleaners and cleaning powders. Make sure the label states "No Phosphates" and that they are biodegradable. If there is no mention of phosphates or phosphorus, the product probably does contain the offending substance.

Another thing to avoid in cleaning products is chlorinated bleach, or the use of chlorine bleach. Chlorine bleach not only bleaches but has strong disinfecting properties. It kills germs very effectively. Unfortunately it also kills the



beneficial bacteria which enable your septic tank to function properly.

A poorly functioning septic tank has its own set of problems and produces run-off which pollutes the lake.

So what are the good cleaning products? First look for the environmentally friendly or "Green" cleaners. Some of the cleansers which great-grandma used many years ago are safe, effective and environmentally friendly. Washing soda, baking soda and vinegar are good examples. Washing soda, the chemical name is sodium carbonate, can be powerful and effective. You can buy a box of washing soda and it is cheap. It does not produce suds but it does the job. However, you should follow with a clear water rinse. You will notice that many of the "Green" cleaners, such as laundry detergent and

general cleaners contain sodium carbonate, (Washing Soda). Baking soda, sodium bicarbonate is gentler and is often used to clean refrigerators and freezers in addition to its use in cooking.

Sudsing agents or surfactants are usually added to enhance cleaning products. Environmentally friendly products use plant based surfactants, often derived from oranges, palm, vegetables or coconut.

Avoid petrochemically based surfactants and heavily perfumed products. They can contain substances, which do not biodegrade easily and can be harmful to the lake and to you. So, read your labels!!! Beware of products which give you very little information; they probably contain the bad stuff!

## More on House Safe Cleaners

By Natural Resources Council of Maine.

#### **Drain Opener**

Prevent clogs by flushing drain weekly with boiling water. Pour 1/2 cup of baking soda into drain, then add a cup of vinegar. (It will fizz.) Rinse with mixture of boiling water and salt.

#### **Oven Cleaner**

Sprinkle salt on still warm spills, scrub. Scour with baking soda and water.

#### **Kitchen Cleanser**

Wash surfaces with a paste of baking soda and water. Rinse with water. Mix equal parts vinegar and water in a pump-spray bottle. Rinse with water.

#### Silver Polish

Soak silver in solution of 1 qt. warm water, 1 tsp. Baking soda, 1 tsp. salt, and a piece of aluminum foil.

#### Stainless steel cleaner

Wash item in solution of 1 qt. warm water and 3 tbs. baking soda. Rinse with hot water.

#### **Disinfectant and Mold Inhibitor**

Mix 1 tsp. borax and 3 tbs. white vinegar with 2 cups hot water in a pump-spray bottle. Spray onto mold growing areas. Do not rinse—vinegar will evaporate.

#### **Floor Cleaner**

Mop with a solution of 1 cup vinegar in 2 gallons of water.

#### **Toilet Cleaner**

Sprinkle with baking soda or borax, pour a little vinegar on toilet brush, scrub.

#### **Tub and Tile Cleaner**

Mix 1 2/3 cup baking soda, 1/2 cup liquid soap, 1/2 cup water, and 2 tbs. vinegar (don't add vinegar too early, it will react with baking soda), scrub. Rinse with water. Learn more by visiting their website at: <u>www.nrcm.org</u>.



### **Important Dates**

- July 11, the annual SPWA meeting.
- June 20<sup>t</sup>, Maine Lake Conference, St-Joseph's College, Standish
- Oct 14, 2009, The Lake Associations will hold a meeting at the Otisfield Town Office at 7:00 p.m. Paul Hunt of the Portland Water District will speak on Watersheds and the Importance of the Crooked River Watershed.

## Remember To Register Your Boat. That's The Law.

**All** motorboats must show registration by applying a sticker on the boat(s). **They** must also display the Lake and River Protection Sticker ("Preserve Maine Waters").

## **Elections Of Officers**

The Board of Trustees officers are elected for a two-year term. This year, the following Board of Trustees positions are up for election: Ellen Attaliades President - Bruce LeBlanc Vice-president - Jacinthe Sirois Treasurer.

#### Correction

In addition to winning the **Call of the Loon** book/CD for the logo contest, Jennie Williams also earned her family a one year free membership to the SPWA.

## **SPWA Memberships/Donations**

We thank you for your generous support in 2008. We had 35 members. Thus far 23 members have joined the SPWA for 2009. The list will be published in our fall newsletter.

## HELP NEEDED

We are looking for people to help fold our newsletters, and apply labels and stamps. This can be done in your own home.

We print out about 200 newsletters twice a year, spring and fall.

Please contact:

jsirois@saturdaypond.org



# $\stackrel{\scriptstyle \leftarrow}{\sim}$ Many Thanks To Our Contributors $\stackrel{\scriptstyle \leftarrow}{\sim}$

- Ellen Attaliades, Scott Williams, Pixie Williams & Lew Wetzel for their interesting articles.
- Greg Milo for the lake photo on the header.
- Jennie Williams for our new, elegant header with the winning logo.
- Jacinthe Sirois for publishing the newsletter.
- Abby Marble for printing the labels for many years.

# HAVE A SAFE AND ENJOYABLE SUMMER ON SATURDAY POND



Saturday Pond Watershed Association 40 Ridgewood Terrace Otisfield, ME 04270

# JOIN SPWA NOW for 2009

Address	
City/Town	
State	Zip
Email (optional):	•
· · /	

Membership \$15.00

Make check payable to : Saturday Pond Watershed Association and mail to:

code

**Saturday Pond Watershed Association** 

Jacinthe Sirois Treasurer 09

P.O. Box 919 Oxford, ME 04270

I am interested in helping with the following:

U Water Testing Program

□ Board of Trustees

□ Communication/Newsletter

**Others** 

Namo.

Suggestions - Comments - Questions:

**09** next to your name on the label indicate paid membership for 2009.