Taylor Pond Association News

July 2014



TAYLOR POND ASSOCIATION ANNUAL MEETING

Sunday, July 27, 2014, 7-9 p.m. Taylor Pond Yacht Club

Returns and address corrections to:

Michael Dixon 126 Everett Road Auburn, Maine 04210

Interested in volunteering to help with TPA programs?
Please call
Dana Little at 784-1908



Please visit the TPA website:

www.taylorpondassociation.org



President's Message By Dana Little

First the good news, our water quality continues to remain stable. Through the hard work of Woody Trask and George Sheets we continue to monitor phosphorous, levels of oxygen and temperature and other measurements that indicate good health. You can find a brief summary of their work in this newsletter.

Now the bad news, our treasurer Michael Dixon will be retiring from the board this year. When Michael and I started working together the association had a balance of only \$2,200 and had yearly expenses of at least \$2,600 that were expected to go over \$3,000 the following year. In addition we had only 40 dues paying members for an annual income of \$1000. Under Michael's leadership we slashed expenses, increased dues paying members to over 125 and have a healthy balance in the bank to hedge against future disasters. He did all of this without raising annual dues above \$25 and this year cut our dues to \$15. His legacy will be hard to beat and I hope you will all join me in thanking Michael for his dedicated service to our organization.

Michael's departure opens up an opportunity for someone who wishes to learn these skills. Michael has offered to teach anyone the elements of keeping a nonprofit healthy and Dick Marston will teach QuickBooks to anyone willing to learn. The board meets about every two months (less this year) and is a great way to meet other people who live on the pond.

Finally, please join me at our annual meeting Sunday July 28th at 7pm at the Taylor Pond Yacht Club to meet Maggie Shannon of the Maine Lakes Society. The past few years have seen many bills introduced to the legislature in Augusta detrimental to water health. She will describe how her organization works to make sure that legislation keeps all of our lakes in Maine clean. Taylor Pond Association has been a significant financial supporter of her efforts. We will also have an opportunity to see our own local artist Jack Zinke and his beautiful wood carvings of local fish.



Editor's Note By Michael Dixon

I am going to start off this note with some news of my own. After much soul searching, I have decided that I will not be seeking re-election as Treasurer. I have had a wonderful time during the 13 years I have held this position, and have expanded it to include many different functions important to the Association. But it is now time for someone else to take over the various roles I have fulfilled. I intend to work with the Board for as long as is necessary to ensure that there is a successful transfer of my responsibilities. Thank you for all your support over the years.

This year's newsletter is another good one. We have regular features, such as Dana Little's President's Message, Susan Trask's report on the Shoreland Improvement Grant Program, Woody Trask's summary of water quality data collected in 2013, and my financial and membership report. Marc Tardif has prepared an update on his ongoing work related to high water events on the pond. Auburn Sewerage District Engineer, Sid Hazelton, tells us what we as Taylor Pond residents can do to prevent sewage overflows into the pond. Dana Little has provided two informative nature articles, one on Metaphyton, the algal masses which periodically bloom and collect in our pond, but thankfully poses no real risk to water quality, and the other on the how and why of seasonal variations in the pond's water temperature. Bill Phillips has contributed a thought-provoking article on the subject of light pollution. Susan Trask extols the virtues of establishing a vegetative buffer strip on our properties. Bonnie Faiman, Dana Little, Tom Sawyer, Bettyann Sheats, Dyanne Smith, Susan Trask, and Joe Whitlow have provided many wonderful pictures taken on the pond. Special thanks to Tyla Davis, Laurie Henderson, and the other staff of Bates College Print and Mail Services for their continued inspired work in making our newsletter look wonderful.

Taylor Pond Association Mission Statement

The Taylor Pond Association is a 501-c-3 federal tax-exempt organization committed to maintaining the water quality of Taylor Pond in order to preserve wildlife habitat, protect property values, and safeguard recreational opportunities.



TPA Shoreline Improvement Grant Update

By Susan Trask

Are you thinking about making some improvements to your waterfront property? Would you like to make your space more beautiful and also help to secure the future health of Taylor Pond? Please consider applying for assistance from the Taylor Pond Association!

For the eighth straight year, the Taylor Pond Association is offering matching grants of up to \$500 for watershed residents to improve their property in lake-friendly ways. "Lake-friendly" improvements include (but are not limited to) creating or expanding a buffer strip, installing rip-rap, creating better walkways to the water, etc. So far we have awarded five grants, expending \$2500. The process is simple:

- 1. Contact Susan Trask at 784-4606 or susatrask@roadrunner.com and let her know that you are interested in making some improvements to your property. She will ask an expert from AVSWCD (Androscoggin Soil and Water Conservation District) to schedule a visit to your property to evaluate your situation and make recommendations.
- 2. Carry out your project, following the guidelines given. Save all your invoices and records of personal hours expended.
- 3. Contact Susan to let her know that the work has been completed. She will schedule a return visit by an AVSWCD expert who will evaluate the work and send a report to the Board.
- 4. Send copies of all your expenses and personal hours expended to Susan.
- 5. If the work completed follows best-practice guidelines, the Board will vote to award the grant, up to \$500 in matching funds.

If you are even just thinking about what to do with your property, please consider getting some expert advice first! We will send someone out to consult with you. You have the benefit of professional expertise even if you ultimately decide not to apply for the grant.





Did you know that declining water quality and clarity are directly correlated with decreases in property values? Take the following steps to protect Taylor Pond and your property's value:

- Establish an unmowed vegetation buffer on the shoreline
- Use phosphorous free fertilizers on lawns and phosphate-free detergents
- Control runoff and erosion on your property

Technical assistance and \$500 matching grants available to help members and road associations with the process of making their properties/roads lake-friendly.

Call Susan Trask at 784-4606 for more information

2014 slate of candidates for the Taylor Pond Association Board of Directors to be voted on at the Annual Meeting on Sunday, July 27, 2014:

President

Dana Little (784-1908; danalw@roadrunner.com)

Secretary

Susan Trask (784-4606; susantrask@roadrunner.com)

Treasurer

Currently Open

Board Members

Edwin Gray (720-0098; edwin_gray@hotmail.com)
Larry Faiman (782-4648; bmfaiman@gmail.com)
Dick Marston (784-1445; dmarston100@roadrunner.com)
Barbara Mitchell (783-9000; bmitch61@aol.com)
Donna Morin (dmorin77@aol.com)
Peter Bunker (784-2909; peter@shads.com)
Marc Tardif (783-7395; tardifml@efp-efs.com)

If you have internet access and are willing to volunteer to be an officer or director, please contact Dana Little to add your name to this list.

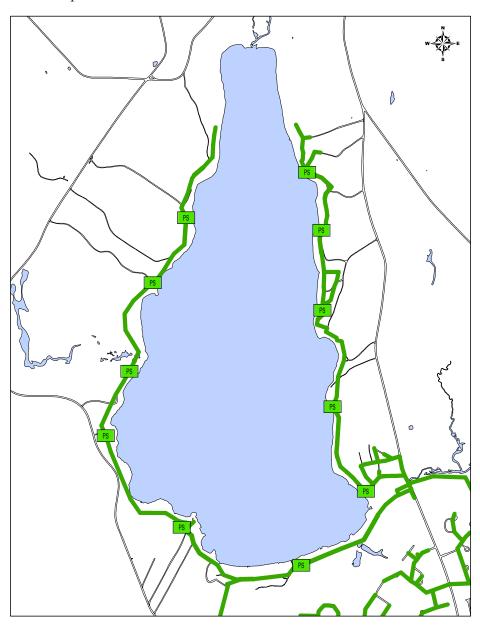
No Wipes in the Pipes

By Sid Hazelton, Auburn Sewerage District Engineer

The Auburn Sewerage District is hoping to raise awareness and is asking for the help of Taylor Pond residents in solving solve an increasingly serious problem. We routinely see items such as "flushable" wipes, disposable toilet cleaning pads, moist towelettes, feminine hygiene products, rags, paper towels, baby wipes, diapers, etc. in our sewer collection system. These items should be thrown in the trash; not flushed down the toilet. Despite manufacturers' claims, "flushable" wipes do not break down after disposal.

As you can see from the map, much of Taylor Pond is serviced by public sewer. Many residents would probably be surprised to find out that there are 11 sewage pump stations around the pond. Pump stations are particularly susceptible to these items. Unfortunately, when these items are flushed, they clog our pipes and pumps, and cause backups and overflows that ultimately pollute the environment and increase operational costs to the ratepayers.

Auburn is not alone in this fight. In a recent survey the Maine Wastewater Control Association (MMWCA) found that 90% of respondents indicated that "wipes" cause problems in their systems. With partners in Maine and around the country, MWWCA has taken the lead on this issue, and advocates for consistent labeling and marketing of wipes and similar consumer products to reduce the burden on municipal wastewater departments and districts. Despite their efforts, it is an uphill battle.

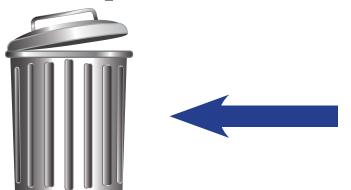


To help alleviate this problem, we rely heavily on the voluntary cooperation of individuals, businesses, and industries who use the public sewer system in Auburn. Please help us spread the word, and remember: "No Wipes in the Pipes." For more information please contact the Auburn Sewerage District at 784-6469 or info@awsd.org, or visit www.awsd.org.

Please Keep "Flushable" Wipes Out of the Sewer



Please put these items in the <u>trash</u>, not the <u>toilet</u>



- "flushable" wipes despite manufacturers claims, these do not break down after disposal
- Disposable toilet cleaning pads
- Moist towelettes
- Feminine hygiene products
- Rags, paper towels, napkins
- Baby wipes/diapers



We need your help to prevent clogs, backups, and overflows to water bodies such as Taylor Pond and The Androscoggin River. Improperly disposing of these items can foul the environment, and increase operating costs, which ultimately affect all Auburn sewer rate payers.



Metaphyton in Taylor Pond

By Dana Little, June 21, 2014.

Jumping into shallow water in late summer and early fall may land you in a mass of large, green, slimy blobs. The blobs, called metaphyton, are actually collections of algae. At least two processes can produce metaphyton. 1. Algae floats freely in the water throughout the year, some in the form of long, green, hair-like strands. During the summer, winds blow these floating strands around until they collect into large clumps. The clumps tend to become trapped by plants growing in shallow areas. With time, more strands collect until they form large masses several feet across. 2. A second process of production starts with large mats of algae growing on the pond floor in shallow areas. As photosynthesis occurs, the resulting oxygen becomes trapped in the algae mat, lifting it upwards until a large green blob filled with bubbles appears on the surface.

Another name for metaphyton is "elephant snot". Experts believe that despite the disturbing look and the slimy texture of metaphyton, they are a normal part of a healthy pond. Metaphyton are an excellent source of nutrition for aquatic insects, crustaceans, frogs and small fish. In addition, they provide shelter from predators for small pond creatures. Phosphorous and nitrogen run-off from lawns and developed areas increase the production of metaphyton. Installing a buffer zone of natural vegetation next to the water, and avoiding the use of chemical fertilizers help keep



AN IMPORTANT NOTE REGARDING TPA MEMBERSHIP

If your mailing of the newsletter does not include a membership form, it means that you have paid your 2014 dues or are an honorary member. If your copy of the newsletter does include a copy of the membership form, it means that you are not currently a dues-paying member of the Taylor Pond Association. Although we enjoy a healthy bank balance, an active membership remains essential to the overall well-being of our organization. If you have never been a member, but agree with our mission of preserving the water quality of Taylor Pond and protecting property values, please join us. If you are a former member who has not yet rejoined this year, please do so. If you are an active member, thank you for your ongoing support.

Maine Boating regulations state:

"Speed Regulations"

Watercraft may not be operated at a speed greater than headway speed while within the water safety zone or within a marina or an approved anchorage in coastal or inland waters except while actively fishing. "Headway speed" means the minimum speed necessary to maintain steerage and control of the watercraft while the watercraft is moving. The operator of any watercraft must operate at a reasonable and prudent speed for existing conditions and regulate the speed of a watercraft so as to avoid danger, injury or unnecessary inconvenience in any manner to other watercraft and their occupants, whether anchored or under way. The operator must consider the effect of the wash or wave created by their watercraft to waterfront piers, floats or other property or shorelines."

"Water Safety Zone means the area of water within 200 feet of any shoreline, whether the shoreline of the mainland or of an island."

For the sake of all, please operate your watercraft responsibly.



Treasurer's Report on Finances and Membership By Michael Dixon

The following is our 2013 end-of-year financial report:

Balance thro	ough 01/01/2013				\$27,009.64
2013 Incom	e				
45-	Dues & Contributions	\$4,950.00			
	Interest Income	\$82.23			
7 B	Income Total	\$5,032.23			
2013 Expenses		STATE OF THE PARTY			
	State fees	E By 3	\$35.00		
	C.O.L.A. Dues	19 3 6	\$500.00		
	VLMP Contribution		\$100.00	1 72	
- 8	Web Hosting fee		\$49.95	Missing	300
	Dues Letter Printing & Mailing	G. FEI	\$152.46		
	Newsletter Printing & Mailing	1 312	\$964.89		
	Website expense	RE FO	\$626.81		
	Annual Meeting expense	10	\$20.55	411	
	Water Testing expense	The same of the sa	\$118.01		
	Lab fees	and interes	\$255.00		
	Technical Services		\$566.86		
	Expense Total		\$3,389.53		
Net Gain				\$1,642.70	
Balance thro	ough 12/31/2013				\$28,652.34

In 2013, we had 126 dues-paying members, including 81 basic memberships, plus 45 memberships at higher levels of giving, including 29 Supporters (\$50) and 16 Benefactors (\$100). Because of the large balance we have built up, the Board decided to lower the basic dues for this year to \$15.00, though many of you have continued to rejoin at a higher level of giving. The Association is very appreciative of the generosity of all its members.

An important part of our efforts is our annual newsletter. We mailed out almost 250 copies of our 2013 newsletter. Our database is frequently updated in an effort to send the newsletter to all property owners in the Taylor Pond shoreland zone, whether they are TPA members or not. We also send the newsletter to many "honorary" members, such as City Councilors, members of the Planning and Zoning Boards, certain City staff, and so on.

As of 07/10/2014, I have processed 107 memberships. The Taylor Pond Association checking account has a balance of \$16,212.90, and we also have a CD whose current value is \$15,187.25.

The Night Sky at Taylor Pond by Bill Phillips

On my first visit to Maine as a teenager, I had the experience of seeing a fabulous display of the Northern Lights, from the small town of Benton Falls. My friends and I, after realizing just what we were witnessing, took blankets out on the grass and lay there looking up at the spectacle in the sky. It was an unforgettable experience to be sure.

The night sky has always captivated mankind. Mythology, fantasy, religion, and science have pondered the riddles of the many constellations and nighttime objects and their strange movements. Many of us may recall experiences of seeing our first shooting star, looking at the moon with a telescope, or seeing the rings of Saturn. For some of us, man's journey beyond the earth's gravity has occurred completely within the span of our lifetime, though such travel was often dreamed of by ancients. But man's wonder at the countless stars and awesome astronomical occurrences could also end or diminish greatly within our lifetimes as well. Why?

We are losing the night! With the ever increasing population of the earth, and the ubiquitous desire to light up our structures, our streets, and our property, our ability to appreciate the wonders of the dark sky may diminish. Already, millions of children throughout the world, growing up in cities or near them, are robbed of the immense beauty of the night sky. Few constellations can be appreciated from any of our world's population centers due to the combination of both air and light pollution that effectively blocks our visual connection to the infinite beyond. Visiting a planetarium is a poor substitute for looking up at a meteor shower while sitting on grandad's knee.



Fighting light pollution is not a new idea. Many communities in our country, including Bar Harbor, have already enacted policies or ordinances to reduce light pollution. On Taylor Pond, our night sky can be disrupted by surrounding light from L-A, or from the airport, but also by our own outdoor and lakeside lighting. One of the beauties of living on a lake is the expanse of sky open for us to enjoy at all hours of the day.

Please be mindful of the effects of lakeside lighting and considerate of neighbors who appreciate the beauty of the night sky on Taylor Pond, by keeping property lighting to the minimum necessary for your safety and enjoyment. Focused, low level lighting of pathways on timers or motion sensors is preferable to powerful sodium lamps that stay on continuously.

For additional information about the growing problem of light pollution, watch Ian Cheney's documentary film, "The City Dark," which is available through interlibrary loan from the Auburn Public Library. Also, visit the International Dark Sky Association website:

http://www.darksky.org/outdoorlighting/lighting-ordinances/35-ida/outdoor-lighting/80-simple-guidelines.

Seasonal Variations in Water Temperature and Water Circulation in Taylor Pond By Dana Little

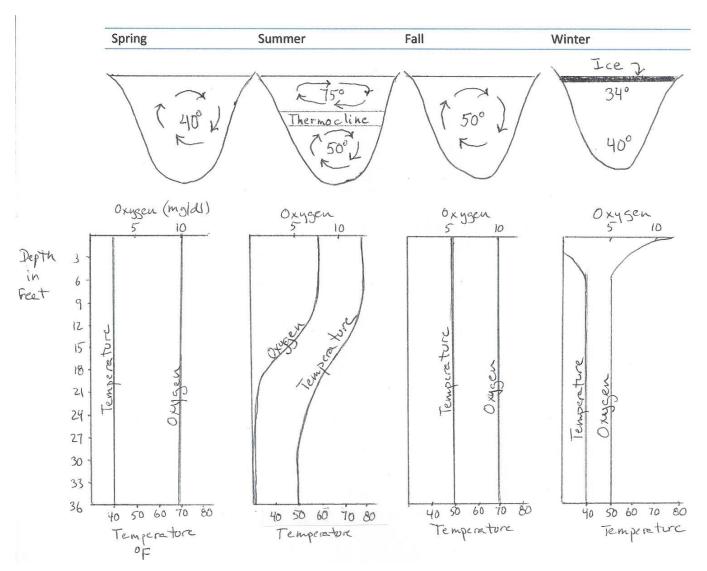
Is the water warm enough to swim? Each spring, our son, Rob, made a ritual out of jumping into Taylor Pond before the ice was completely out. My grandfather, who lived on a lake in Wisconsin, reportedly took his weekly bath all winter by cutting a hole in the ice. For most of us, temperatures of at least seventy are desirable. That means we enjoy swimming on the Pond from the Fourth of July to Labor Day.

Lakes located in temperate climates like Taylor Pond have four distinct seasonal temperature patterns (see diagram).

SPRING:

After ice out, winds are brisk and the water freely circulates from top to bottom. In Taylor Pond, water temperature typically runs at 40 degrees Fahrenheit and oxygen level measures at 10 (milligrams per deciliter, close to 100% saturation).

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SUMMER:

The water separates into three layers.

- 1. Epilimnion, the top layer with the warmest water, usually measures 15 feet deep and averages 68-77 degrees. Oxygen from the air dissolves in the water and is circulated throughout this layer by the wind. Light penetrates easily and algae uses light through photosynthesis to produce oxygen and sugar on which fish and other wildlife survive.
- 2. Thermocline, the middle layer where temperature and oxygen levels rapidly drop. About 3-6 feet thick, this level acts as a barrier which prevents mixing of the upper and lower layers of water. Below this depth oxygen levels drop too low to sustain most life.
- 3. Hypolimnion, the deepest layer with the coldest water. Temperatures usually hover around 54 degrees. Below 18-21 feet, little light penetrates which reduces the amount of photosynthesis. Most of the nutrients that exist here are those that filter down from dead organisms above. Their decomposition uses up any oxygen that may be present. Fish that require cold water, such as salmon and trout, cannot live here due to the lack of oxygen. The deepest parts of Taylor Pond are found in the northern and eastern portions and down the center.

FALL:

Weather turns cool, water temperature drops to 50 degrees, the thermocline disappears, and winds once again circulate the entire body of water. Now, the temperature and oxygen levels become fairly uniform at all depths, including the deepest parts of the pond.

WINTER:

Cold weather freezes the top layer of water. Within days, the ice will be thick enough to hold one person, and by the end of the winter it will be 18-36 inches thick. Just below the ice, the temperature hovers around 34 degrees; deeper

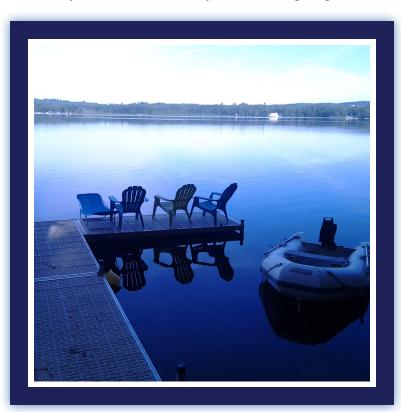
down, it's about 40 degrees.



Each year Taylor Pond cycles through these four stages. In spring, if you were to jump into the 40 degree water, you would become hypothermic, shaking uncontrollably, within minutes, and lose consciousness within 15-30 minutes. In summer the sun warms the top layer and the thermocline keeps cooler water down deep. Having a thermocline allows us to swim comfortably most of the summer.

2013 Water Quality Summary for Taylor Pond By Woody Trask

Water quality monitoring for Taylor Pond was conducted by George Sheats and Woody Trask. George conducted periodic checks for clarity using a Secchi Disk and Woody did more extensive testing once a month for dissolved oxygen, temperature, color, pH, alkalinity and conductivity as well as clarity. Water samples were also mailed to the University of Maine to be analyzed for total phosphorus in the surface layer and near the bottom.



The testing results for 2013 are not radically different from any of the past five years, indicating the condition of the pond is stable but with the same moderate level of concern about the potential for algal blooms. The threat is due primarily to the fact that during the height of summer there is high oxygen depletion below a depth of five meters (about 16.5 ft.) which means there is potential for phosphorus to leave the bottom sediments and become available to algae in the water column. The lack of oxygen also means Taylor Pond is not suitable for certain cold water fish such as trout. We have been fortunate not to have had any significant algal bloom for several years.

The overall water quality of Taylor Pond is considered to be average compared to all Maine lakes. Barring a major environmental event that causes significant soil erosion and phosphorus rich run-off entering the pond, the water quality is expected to remain in its present condition for 2014 and beyond.

The ice out date for spring 2014 was recorded as April 23rd, which is about a week later than the historical average – not surprising considering the winter we had.

Taylor Pond Asociation Annual Meeting, Sunday, June 27, 2014 at 7 P.M. at the Taylor Pond Yacht Club

Please plan on attending the TPA Annual Meeting. This year's meeting will feature a presentation by Director and LakeSmart Coordinator, Maggie Shannon, and President, Peter Kallin, Ph.D, of the Maine Lakes Society. They will be speaking on the advocacy efforts of MLS on behalf of Maine lakes. These efforts include working with the Legislature to ensure that Maine laws and regulations protect our Great Ponds, and also working with individual Lake Associations on maintaining a vibrant local presence. Also, Jack Zinke, who is an artist, fisherman, summer resident, friend of the environment, and long-time TPA member, will be displaying his wood carvings of Taylor Pond fish at the meeting. Light refreshments will be provided.

One Thing You Can Do By Susan Trask

A few weeks ago I had a conversation with someone who recently moved into one of our lovely lake-front properties. When she realized that I was affiliated with the Taylor Pond Association, she said,

OK, if there is ONE thing you could tell me to do to help keep this lake as beautiful as it is, what would that be?

Wow, I wish everyone who lived here would ask that question! I replied:

Plant a buffer strip.

We know that one of the most common ways for algae-feeding phosphorous to get into the lake is via run-off from the land surrounding the lake, a phenomenon called "non-point source pollution." When water runs into the lake during and after a rain event, it picks up soil particles along the way. The faster the water moves, the more soil it will pick up. But if the water is filtered along the way by vegetation, much of the soil will remain behind.

If you have a dirt path or grass right down to the water's edge, then you are providing a runway for phosphorous-laden soil particles to enter the lake. A "buffer strip" is a swath of plants that grow along the shoreline to trap these particles. Many people like the look of a beautiful green lawn, but grass is an inadequate buffer – and it requires a good deal of maintenance, of course. There are many beautiful plants that establish easily and do well unaided on our shoreline. Take a look around and see the varieties of lovely plants that are there! You'll see day lilies, rosa rugosa, daisies, spirea, and so much more!

So: what is ONE thing that everyone can do to help preserve our precious resource?

Plant a buffer strip!



