

# Raymond Waterways Newsletter

Published by Raymond Waterways Protective Association

"To protect and improve pond and lake water quality and foster watershed stewardship"



Summer 2009

## Invasive Plant Remediation Projects

Bay View - Suction Harvester



In 2009 we will continue our milfoil remediation efforts at Bay View Estates, Port Harbor Marine, the Jordan River, and Dingley Brook. (page 3)

## Courtesy Boat Inspections

Inspectors @ Raymond Beach



In 2008 we inspected 2477 boats for invasive plants at the four public boat launches in Raymond. We are providing the same coverage this season. Please be sure to inspect your own boats when you move lake to lake to avoid transporting any plants between lakes. (page 3)

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## Watershed Protection Projects

Panther Pond - Hayden Brook Culvert Stabilization



Raymond Pond - Infiltration Steps on Lake Access



In 2008 we worked with the Panther Pond Association, Town of Raymond and volunteers to complete our first watershed grant project - Panther Pond Conservation Project—Phase I. In 2009 we are beginning Phase II on Panther Pond and the Raymond Pond Project is in its final season. The projects offer free technical and financial assistance to fix erosion problems. Projects include infiltration steps, rubber blade diverters on driveways, culverts and ditching on camp roads, rain gardens, or planting shoreline vegetation. (Page 4 & 5)

**RWPA Annual Meeting & Picnic - August 2, 1-3 @ Public Safety Building**

## Dear Friends of Raymond Waterways

### Board of Directors & Staff

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Charlie Turner

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**Our Annual Meeting...** We invite you to join us at the Raymond Public Safety Building at Main Street and Rt. 302 on Sunday, August 2<sup>nd</sup> from 1-3pm for this year's RWPA Annual Meeting. Come hear about some of our new projects and find out how you can become more involved in helping us protect Raymond's lakes. We will host a potluck event after the meeting. We will provide deli sandwiches and beverages. Please bring a salad or dessert to share and RSVP so we can order the correct amount of food. We hope you can join us!

**Send in Your Donations....** we understand that these are difficult economic times but we hope you can continue to support our organization to protect Raymond's lakes. Our donations are down 20% from this time last year and we encourage you to give in any amount to support our efforts. *RWPA is a 501(c)3 non-profit. Donations are tax deductible.*

**Invasive Plant Activities...** We were proud to receive the "Invasive Aquatic Plant Prevention" award from the Volunteer Lake Monitoring Program - Maine Center for Invasive Aquatic Plants recognizing our prevention efforts. We are in great need of more trained eyes on our lakes to ensure they remain invasive free. We hope you can take the time to attend the August 4th training provided by the Maine Center for Invasive Aquatic Plants and join our team of plant patrollers when we survey the lakes this summer. FMI see page 3.

**Water Quality...** As of this date we have received almost 5.5 inches of rain ABOVE NORMAL since June 1. Although this at first might not seem significant, the lower temps and persistent cloudiness have retarded evaporation, further aggravating the problem. With the rain comes runoff across our roads, driveways, paths, and rooftops carrying soil particles and other pollutants to the lake. One can only hope the rains subside soon, and things return to normal. On another note, preliminary conductivity tests, which detect dissolved ions such as metals and minerals, have suggested that we should seriously consider monitoring our streams and rivers for these concentrations, what with increased development pressures upon us. This will be discussed at our annual meeting on August 2.

**Working Together with Local Lake Associations...** RWPA works hand in hand with your local lake associations to best serve the specific needs of each lake. We provide the staff to manage the federal funded conservation projects (Panther Pond, Raymond Pond) while the lake association serves as the steering committee to guide the project. Additionally, we are providing staff support for the LakeSmart program on Crescent Lake with the CLWA.

We hope to see you at the annual meeting. Enjoy the summer on Raymond's lakes and ponds!

#### The Economy Begins to Affect Contributions - A Reminder

As we have documented these past few years, your generous contributions have allowed us to step up and begin to win the battle against invasive plants and run-off pollution that threaten our lakes and ponds.

Now, not unexpectedly, the economic downturn, that seems to have left no family un-touched, has begun to affect the amount of contributions that RWPA has received to date this year.

For those of you who have already given, you should have received our heartfelt Thank You. For those of you who have yet to send your annual donation and may even be hesitant, given these difficult times; as we always emphasize, it is the act of contributing and not the amount that is important. So, please take a moment and consider making a contribution, however small it might be this year. Our children and their children will thank us for continuing to care for our lakes and ponds even during difficult times.



# Courtesy Boat Inspections - Invasive Plant Surveys - Milfoil Remediation

## Courtesy Boat Inspections

The rainy June weather has certainly slowed down boat traffic at the ramps this season but our inspectors continue to show their presence at the four public ramps between the rain drops to educate boaters on the importance of checking their boats for plants before and after they launch. In the table we have summarized our inspection efforts in 2008. A total of 973 hours were spent at four launch sites to inspect 2477 boats. Rangers removed one invasive plant fragment (Variable milfoil) from a boat exiting Raymond Beach. As boaters become more aware, fewer plant fragments are being found on boats. In 2008 we removed 4 plant fragments (1 invasive) as compared to 2007 (48 plant fragments, 3 invasive). Though we provided 120 more hours of coverage in 2008 compared to 2007, we inspected 443 fewer boats. We expect due to the economy and high gas prices, fewer boaters were entering our lakes. Remind your friends and neighbors to check their boats before they float this season!

SUMMER 2008 INSPECTIONS		
Lake	# Inspections	Plants Found
Sebago Lake	1827	3 (1*)
Crescent Lake	576	1
Panther Pond	47	0
Thomas Pond	27	0
<b>TOTALS</b>	<b>2477</b>	<b>4 (1*)</b>
<b>*1 invasive found on boat exiting Sebago Lake</b>		

**Please remember our rangers are not always on duty, so be sure to inspect your boat (trailers, live wells, tackle) before and after you float! Remove ANY and ALL plants. One 1/2 inch fragment can root in a lake and begin a new infestation.**

## Milfoil Remediation Projects

We had a very successful season of plant control in 2008 and we are continuing this effort into the 2009 season. In 2008 we hired divers and organized volunteers to remove 51 cubic yards (~ 17 dump trucks) of Variable milfoil from Bay View Estates I & II, Port Harbor Marine, Dingley Brook and the Jordan River.

In 2009 we continue to work with diver Cliff Cabral and his staff using a suction harvester (photo front page and below) to clear thick infestation of milfoil at Bay View Estates I & II, Port Harbor Marine, and the Jordan River. We are using benthic tarps to cover several smaller colonies in Bay View II and the Jordan River. Progress has been made but there is still a lot of work to be done to get the infestations at Bay View and Port Harbor Marine under control and we need more funding to continue to make progress.

When the water levels allow we will be organizing volunteers to work in the shallow section of the Jordan River downstream of the Panther Pond dam. If you are interested in helping pull milfoil from the Jordan River, please contact us to be added to the volunteer list.



Variable Milfoil Removed from Bay View Estates

## Invasive Plant Identification Training

**When:** Tuesday, August 4th 3pm-8:30pm

**Where:** Lakes Environmental Association, Bridgton

**Description:** The primary goal of this comprehensive, 5 ½ -hour workshop is to provide those who wish to join Maine's "early detection" effort with information and guidance needed to get started. Learn the basics in identifying Maine's 11 invasive aquatics and native look-alikes and join RWPA's team of plant patrollers.

Pre-Registration Required. Contact VLMP at 207-783-7733 or vlmp@mainevlmp.

## Lake Plant Surveys

**No invasive plants were found in Panther, Crescent, Thomas, Raymond, and Notched Pond during our 2008 invasive plant surveys.** We completed surveys of the entire shoreline area out to depths of 15 feet on these lakes. We surveyed sections of Sebago to document plant locations and monitor sites where we are conducting milfoil remediation.

We rely on trained volunteers to assist us with the invasive plant surveys and we are in need of more volunteers on all of our lakes. We hope you can find the time to attend the August 4th training and join RWPA in our plant survey efforts. The more trained eyes watching for a new infestation the better your lake is protected. Early detection is essential to preventing a lake-wide infestation.

## 2009 Final Season for the Raymond Pond Conservation Project



**BEFORE:** Runoff from Swan's Road (gravel) washes down driveway into the lake. Severe erosion on driveway surface

**AFTER:** Hard packing reclaim added to surface, 2 rubber blades divert runoff into vegetation, crushed rock infiltration at lake-side driveway edge. path below driveway covered with EC mulch  
Bonnie Jackson - Swan's Road

The first two seasons of the conservation project have been a great success. Thirty properties and four roads have received technical assistance. Twelve projects have been completed and many more are in progress this season.

There are still some grants available. If you live on Raymond Pond and have an eroding camp road or driveway; eroded bare soil path or open area; or a shoreline area that could use more vegetation, you can receive free technical assistance and money. Inexpensive conservation practices are practical, affordable, easy to install, and can make a big difference in water quality.

**How does the grant work?** Project staff will visit any landowner and offer recommendations to manage storm-

water runoff and erosion. Recommendations are voluntary. Properties and roads visited are then eligible for 50% cost sharing grants to fix erosion and runoff problems. Grant funds can be used toward the purchase of

native plants for shoreline vegetation or for erosion control materials (runoff diverters for driveways, EC mulch to stabilize paths) or road repair (culverts, crown, ditching).

**Sign up for the Buffer Cruise Sunday, August 9th 1-3pm**  
Join us aboard pontoon boats for a chance to view completed projects around the lake.

**Did the recent rains wash out your road or driveway? Could your shoreline be enhanced with plants? Contact us today at [lakes@raymondmaine.org](mailto:lakes@raymondmaine.org) or 671-3329 to schedule a time for us to visit your property.** If you know you have an erosion problem, contact us today and do your part to protect Raymond Pond.



**BEFORE:** Runoff from camp and open area erode lake access

**AFTER:** Bare soil stabilized with EC mulch. Infiltration steps at access capture runoff. Blueberries planted along path sides to limit foot traffic area.

Trudy Files, Knapp Road

## RWPA & Lake Associations Complementarity - Ben Severn

From a structural perspective, put simply, RWPA and the several Raymond/Casco Lake Associations (be they formal or a loose group of road associations) need one another. RWPA provides the technical expertise of an experienced salaried full-time Executive Director who has links to all the environmental groups in the State and knows many of them personally, thus putting her in the best position to provide the most up to date information to the lake associations on how to best protect water quality. For their part, working with the Executive Director, the lake associations provide the organizational structure for deciding what should be done on their lakes or ponds, and for supplying some, if not all, the funding and most importantly, the volunteer labor to carry out the various

activities such as programs to reduce runoff into the lakes and ponds (via 319 grants for example) and milfoil surveillance and pulls.

With the increased runoff pressures from more and more homes being built around lakes and in the watersheds, and with more and more people traveling all over the country and visiting many different lakes and ponds with various invasive plants, the need to maintain vigilance and then to take action has increased many fold - and to the point that volunteerism alone is not sufficient. Volunteer fatigue is talked of often. Given the size of our lakes and ponds in the area and the number of landowners directly around them, it

would be very costly for each association to fund a person with the skill level of the RWPA Executive Director. And, in this day and age of “Regionalization” it would be inefficient. Finally, from a philosophical perspective, the creation of a lake association instills a greater sense of ownership than would otherwise exist. With that increased sense of ownership comes a greater concern to protect the water quality for current and future generations out of a sense of wanting to give our grandchildren what is perceived to be a precious gift, or from the very cold and calculated desire to be certain that the value of lake property does not fall over time as a result of reduced water quality.

Could there be another model that would work? Surely. If the Towns of Raymond and Casco and maybe even Windham

recognized their collective responsibility, it is possible that an entity larger than RWPA might be formed with more than just one paid employee. Until then, the RWPA/Lake Association model seems best adapted to deal with the problems of today.

Historically, Panther Pond Association had to deal with the fact that most of the directors for RWPA were Panther Pond landowners. It was and continues to be for some Panther Ponders a bit difficult to understand why PPA was needed when RWPA was right there. For Crescent Lake and now for Thomas Pond, the need for an association separate from RWPA apparently has seemed quite natural. We hope you continue to support both RWPA and your local lake association as we move forward to protect our lakes.

## Panther Pond Conservation Project - Highlights and Next Steps

With the improvements that were made during Phase I (2005-2008) to sites that were considered to be of high impact, PPA was able to reduce the amount of sediment entering the Pond by an estimated **75.1 tons** and the amount of phosphorus by **62.2 pounds** per year! This reduction amounts to **70%** of the estimated pollutant load associated with sites identified during the 2003 watershed survey. Phase I provided funds to fix 46 of the 84 sites.

Based on the success of Phase I and working with its collaborative partners, PPA has received a **Phase II \$115,134 grant** (\$63,289 federal funding, \$51,845 local match) to address the remaining identified sites on Panther Pond over the next two years. All Panther Pond watershed residents are encouraged to participate in this grant to reduce erosion problems. Remember, **financial assistance and FREE technical assistance** is available. Please help us protect Panther Pond!

Pollution from soil erosion has been identified as the **most damaging pollution source** threatening Panther Pond. What can you do to protect the lake? Establish or enhance shoreline vegetation to capture and filter stormwater runoff; cover bare soil paths and open areas with erosion control mulch or crushed rock; divert driveway and path runoff into vegetation with waterbars (timbers or rubber blades); establish proper drainage on roads with crowning, ditching, and culverts.

Panther Pond Association and RWPA would like to thank the Town of Raymond, landowners and all the volunteers who helped to make Phase I a success. Let’s keep the momentum going as we begin Phase II. For more information on Phase II contact Noralee at 671-3329 or [lakes@raymondmaine.org](mailto:lakes@raymondmaine.org). For more information on Panther Pond Association events and activities contact PPA at [ppa@raymondmaine.org](mailto:ppa@raymondmaine.org).

Lakeside Drive - Kathy Regios



Before



After

Before: Natural shoreline buffer completely removed. Manicured lawns provide no aid in capturing and infiltrating runoff

After: Erosion control mulch and native plants installed along the shoreline. As this vegetation becomes established it will effectively slow and infiltrate runoff.

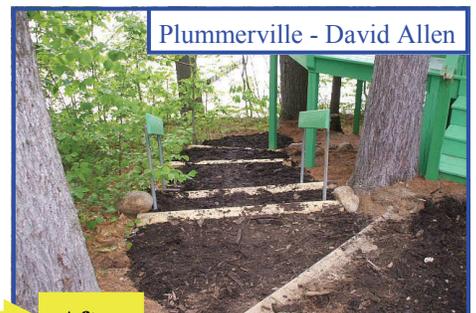


Volunteers install rubber diverters on Bumpy Road to direct water off the road and into vegetation

Summer 2008



Before



After

Before: Stormwater runoff erodes path and flows directly into the lake  
After: Waterbar and infiltration steps soak up and direct water into vegetation

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## One of Eleven Invasive Aquatic Invaders - Curly-leaf Pondweed

Milfoil has become the buzzword when speaking of invasive aquatic plants but we wanted to remind you that not only are there native milfoils in our lakes - "good" milfoil plants - but that there are other non-milfoil invasive plants. There are ELEVEN invasive plants on Maine's list of invasive aquatic plants and several threatening invasives not yet on the official list. Here we thought we would share with you, one of those plants - Invasive Curly-leaf Pondweed.

Curly-leaf is a submersed plant that can grow in shallow or deep, still or flowing, and even in shaded, disturbed, and polluted waters. Curly-leaf may be confused with several native pondweeds such as clasping-leaf pondweed, large-leaf pondweed, and white-stem pondweed.



Source: Vic Ramey, UFL  
Center for Aquatic and Invasive Plants

One characteristic that distinguishes it from its native look-alikes is the leaves have a distinct ruffled (lasagna noodle) appearance.

Curly-leaf is native to Eurasia, introduced to the USA in the mid 1800s, it has spread to almost every state in the country. It was first confirmed in a small pond in southern Maine in 2004 (West Pond, Parsonsfield). In 2004 our RWPA Boat Inspector found and removed Curly-leaf from a Connecticut boat launching into Sebago Lake.

To learn more about invasive aquatic plants visit the Maine Center for Invasive Aquatic Plants on-line: [MCIAP.org](http://MCIAP.org) - order the new plant guide or visit the virtual herbarium.

## What Goes on Beneath the Lake Surface? - Charlie Turner

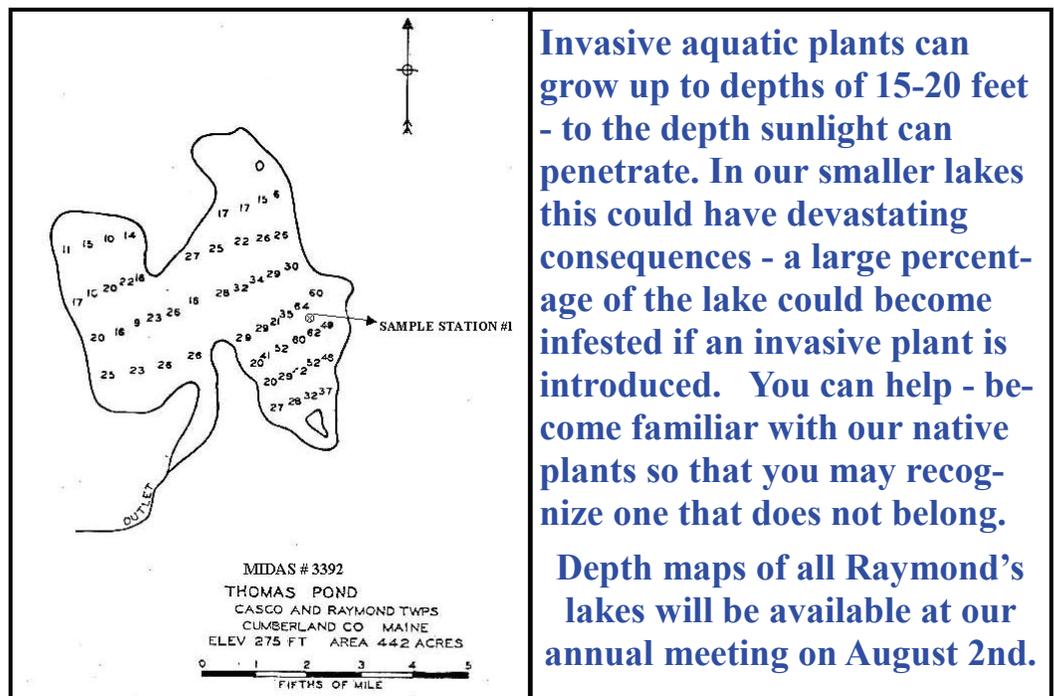
When one looks out over our lakes on a calm day, we are reminded of their serenity and beauty, perhaps not realizing that, underneath those placid waters, mammoth forces are at work shifting and churning like a giant engine. The tranquil surface covers and hides these forces going on beneath, albeit slow.

Consider there are three layers, all supremely different in all our lakes. First, the topmost segment, extending from the surface down perhaps as much as 25 feet, called the hypolimnion. This is the most active layer, warmed by the sun, cooled at night, continuously shifting in response to changing temperatures and wave action. This is the layer that contains the most biologic activity, and of course, the area of which we are the most familiar.

Next, the middle layer, usually around 10 to 15 feet in thickness called the thermocline. This section is most notable by its rapid decline in temperature, often as much as one degree per foot. It also churns, seemingly trying to balance the warmer upper layer and the colder water below. Many fish are aware of this area, as it starts to exhibit rapid deterioration of oxygen, especially in late summer and fall. And, lastly, the bottom layer, called the hyperlimnion. Here, water

is quite stagnant, thoroughly insulated by the layers above, cold, dark and relatively motionless, where temps remain close to the same the entire year, varying often-times by as little as 3-5 degrees. Clearly a dismal place, where time appears to stand still, except for the biyearly lake turnover, which riles up the bottom for several weeks, near ice-in and ice-out.

There it is in a nutshell. So, the next time you gaze out on your tranquil lake you will know that, underneath, many forces are constantly and subtly at work, making for a dynamic, living body of water, almost human in its complexity.



**Invasive aquatic plants can grow up to depths of 15-20 feet - to the depth sunlight can penetrate. In our smaller lakes this could have devastating consequences - a large percentage of the lake could become infested if an invasive plant is introduced. You can help - become familiar with our native plants so that you may recognize one that does not belong.**

**Depth maps of all Raymond's lakes will be available at our annual meeting on August 2nd.**

## New - Crescent Lake Watershed Association - Elden Lingwood

A group of Casco and Raymond residents on or near Crescent Lake are concerned that Maine's DEP has added Crescent Lake to DEP's list of *Lakes Most at Risk from Development*, and have formed an association to protect the lake's water quality. Forty-two concerned people met with these residents in August, 65 met again in October, and then a steering committee was formed. In addition to the many residents, representatives from Camp Agawam, Camp Laurel South, Camp Nashoba, and Camp Pinehurst were represented.

With invaluable direction and advice from Noralee Raymond, Executive Director and Charlie Turner, Pres. of RWPA, help from DEP personnel, and consulting advice from Ben Severn of the Panther Pond Association and Board Member of RWPA, great progress was made during the winter months. What have we accomplished? We obtained a Maine Domestic Nonprofit Corporation - Articles of Incorporation; wrote and approved By-laws; requested and received "start up" funds from several residents; submitted an application and received approval by DEP to participate in Maine's LakeSmart program to reduce storm runoff and soil erosion; and mailed a newsletter to all residents in the Crescent Lake Watershed.

Water clarity and oxygen content of Crescent Lake has been tested for many years. Two additional tests have been added this year, using the generous contributions provided by many to help the Association get started. Water will be tested for phosphorous content using our State's Voluntary Lake Monitoring Program procedure that was introduced in 2009. The electrical conductivity of the lake and its tributaries is now being measured and documented, and will

continue to be measured to identify non-point causes of sedimentation and increases in phosphorous. This combination of tests will give us an early warning if any major component of water quality is degraded.

The Association was formed to promote the protection and enhancement of the water quality of Crescent Lake and to preserve its ecological, economic, recreational and aesthetic value, and will work closely with other organizations that share this purpose. The Association's objectives are to:

- Foster a partnership for the mutual benefit of individuals and organizations concerned with lake and watershed improvement and protection;
- Promote and provide a forum for sharing of information and experiences on scientific, administrative, financial aspects of lake and watershed management and to promote good stewardship of the lake;
- Assist in the development and execution of lake restoration and protection programs in accordance with appropriate management strategies and techniques that will include education, volunteerism or political action;
- Encourage support and development of local, state and national programs promoting lake and watershed management.

**DO YOU KNOW...**

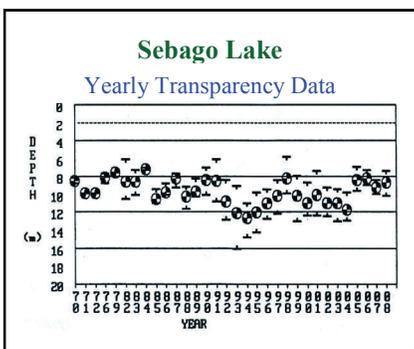
**WE ALL MADE THE DIFFERENCE!**

**CLWA charter meeting will be on  
July 25; 9:00 a.m, Laurel South**

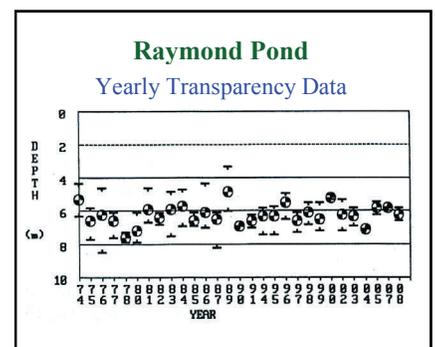
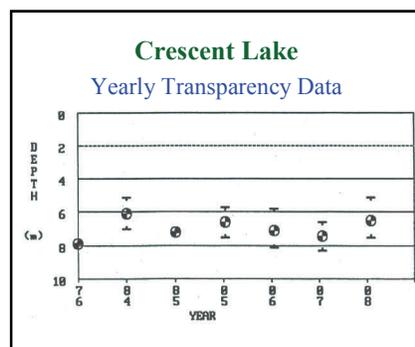
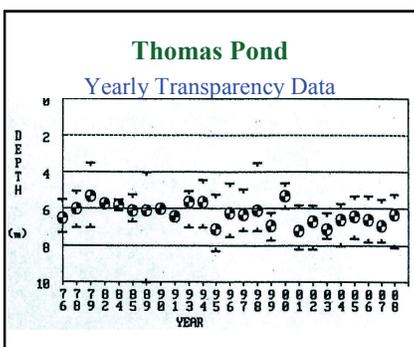
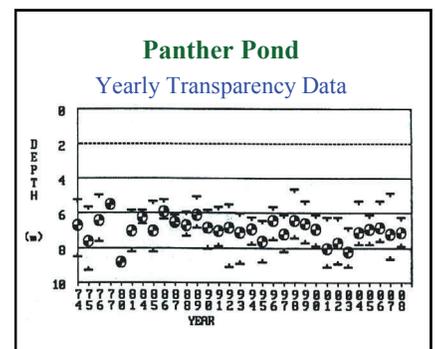
--- Mark your calendars ---

You will learn a lot about Crescent Lake!

## Our Lakes Health - Water Quality Monitoring Results - Charlie Turner



For this year's lake testing we have found a slight reduction in water clarity (around 7%), with the possible exception of Raymond Pond, which has remained fairly stable. This anomaly is manifested around the entire state, and can probably be attributed to this year's abnormally high rainfall, which, of course, ends up as excessive runoff. As for O<sub>2</sub>, all lakes report normal concentrations at all depths.





## 2009 RWPA Membership Form



Thank you to our members who have already contributed in 2009. Our donations are down 20% from this time last year. If you have not yet contributed please donate today. Thank you for supporting our organization!

My lake/watershed is (please circle one): Crescent Raymond Thomas Panther Sebago Notched Nubble  
Enclosed is (please circle) \$2500 \$1000 \$500 \$300 \$150 \$100 \$75 \$50 \$25 Other \_\_\_\_\_  
Name \_\_\_\_\_ Phone Number \_\_\_\_\_ E-mail \_\_\_\_\_

Mailing Address \_\_\_\_\_

Raymond Address (if different) \_\_\_\_\_ Raymond Phone \_\_\_\_\_

Please add me to the RWPA E-mail List for Periodic Project Updates \_\_\_\_\_

RWPA is a 501(C)3 Non-profit. Your donation is tax deductible. Thank you.

### Mark Your Calendars!

#### **Panther Pond Association Annual Meeting and Picnic**

Picnic - Saturday, July 18th

Meeting - Tuesday, July 21st, 7-9, Public Safety Building

FMI: [ppa@raymondmaine.org](mailto:ppa@raymondmaine.org)

#### **Crescent Lake Watershed Association Annual Meeting & Brunch**

Saturday, July 25th, 9am @ Laurel South Camp

#### **RWPA ANNUAL MEET & POTLUCK PICNIC**

Sunday, August 2nd, 1-3pm, Public Safety Building

FMI: [lakes@raymondmaine.org](mailto:lakes@raymondmaine.org)

#### **Cruise the Buffers on Raymond Pond**

Sunday, August 9th, 1-3pm FMI: [lakes@raymondmaine.org](mailto:lakes@raymondmaine.org)

Join us aboard the pontoon boats as we view completed projects on the lake!

**For every meter  
(3 feet) decline  
in water clarity,  
shorefront  
property values  
can decline as  
much as 10 to  
20 percent! -  
University of Maine,  
1996**

To reduce our costs, we have chosen to print the newsletter in partial color. If you wish to receive a full color newsletter we can send one electronically. Please e-mail [lakes@raymondmaine.org](mailto:lakes@raymondmaine.org) for the full color version.

### **Raymond Waterways Protective Association**

*To protect and improve pond and  
lake water quality and foster  
watershed stewardship*

RWPA  
PO Box 1243  
Raymond, Maine 04071

Phone: 207-671-3329

Email: [lakes@raymondmaine.org](mailto:lakes@raymondmaine.org)

Updates will be posted on the RWPA website:  
[www.raymondmaine.org/committees/waterways/](http://www.raymondmaine.org/committees/waterways/)

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