

Phantom Lakes  
 Management District  
 PO Box 212  
 Eagle, WI 53119

www.phantomlakes.us

**Newsletter Number 4**

**August 2008**

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# The Phantom Lakes Management District's

**Annual Meeting**  
**Thursday, August 28, 2008**  
**7:00 pm**

In the Mukwonago Town Hall Building

**Please bring this Newsletter to the meeting!**

Annual Meeting Agenda



- Chairman's Report
- Approval - Minutes of August 23, 2007 Annual Meeting
- Lake Safety Report
- Fish Management Report/Fish Stocking
- Lake Monitoring Report
  - Spring Flow Report
  - Water Sampling Report
- Harvesting Report
  - Old Truck
  - New Truck
  - Harvester/Conveyor Refurbishment
- Municipal Well Update
  - Legal Complaint
- Legislative Update
  - Slow-No-Wake 200 Feet from Shore
- Grants
- Adoption of Proposed Budget for 2009 (\$67,500)
- Adoption of Levy for 2009
- Election of Two Board Members
- Date for 2009 Annual Meeting
- Adjourn

Election



An election will be held at the Annual Meeting to fill **two positions** created by the expiring term of Carol Fait and Grace Graham.

Contact Gina Krause at (262) 594-3583 for information and to have your name placed on the ballot.

Nominations may also be taken from the floor.

PLMD Organizational Meeting  
August 28, 2008

Agenda

The Phantom Lakes Management District will hold an "Organizational Meeting" immediately following the Annual Meeting according to Wisconsin State Statute Chapter 33 for the purpose of electing officers to serve the District from August 28, 2008 until after the 2009 PLMD Annual Meeting. This is a public meeting and everyone is invited. The election will be held by PLMD Board Members only.

- Election of Officers
- Secretary's Report
- Treasurer's Report
- Set next meeting date
- Adjourn



# "WE'RE STILL WATCHING"

By Pete Kumlien



*Editor's Note: Pete Kumlien is a longtime lake resident who has taken the lead role in spring flow monitoring on Upper Phantom Lake.*

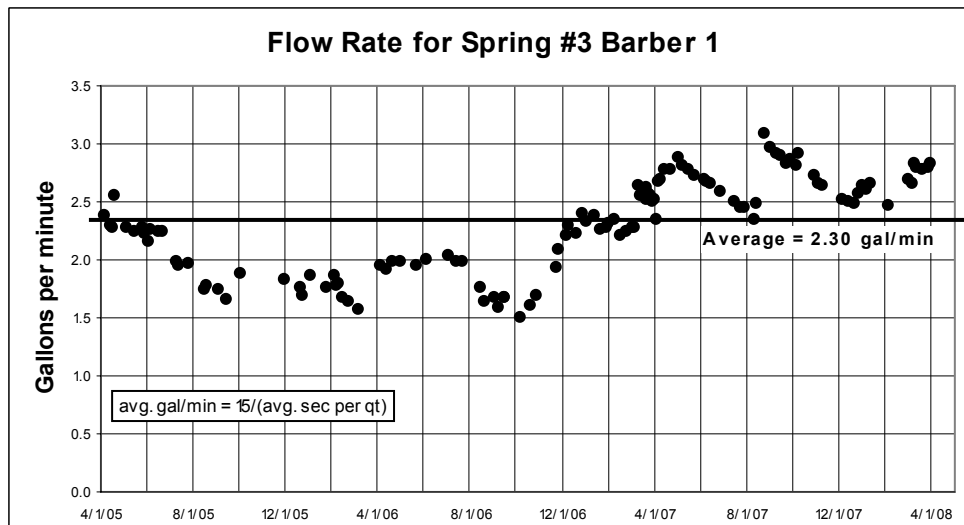
Just in case you thought we forgot about it, we are STILL watching the spring flows on Upper Phantom Lake. We've been watching for THREE YEARS, as of April 1, 2008.

We maintain: that if a high capacity well were drilled and operated to it's maximum capacity, which is one million gallons per day, the aquifer spring flow into the upper lake would be interrupted and cause the lake to putrefy and DIE, with continued pumping.

A few others and myself, on behalf of lake property owners; the PLMD; and environmentally concerned Mukwonago area residents; have continued spring flow measurements; ever since the Village's decision to drill a well close to the upper lake.

Spring flow measurements have been taken on four springs on Upper Phantom Lake, for THREE YEARS, as of this April. One look at the generated graphs show that flow rates have ranged above and below the numerical averages in a somewhat cyclical way. We believe that this is a result of variations of rainfall throughout the period of measurement. The flow rates that fall below these averages are of utmost importance, in that they tell the minimum flow rates over a long period of time. If we are able to document minimum flow rates, we then have a basis to determine any effects of high capacity well pumping. If, under an extended period of pumping of a high capacity well, the averages go below the minimums, we can assume that the pumping is interfering with the flow of the aquifer into the lakes and environmental damage is being done.

This spring's flow rates are somewhat above the three year averages that have been compiled. We interpret this as a result of a general increase in the amount of rainfall since we first started measuring in April of 2005. Taking one spring as an example, the average flow rate of spring #3, the Barber spring, the average rate of flow has increased from 1.65 gallons per minute in 2005 to 1.95 gallons per minute in 2008. The other springs have increased a proportional amount in this period of time. This is a very valuable bank of data, in that it shows the effect of seasonal rainfall over a period of 3 years. With this knowledge, we have a data base to draw upon which can't be challenged by just a week of testing by the Village Engineers (Ruekert and Mielke) if this well goes into operation. Any testing by the Village must be carried on for the entire time of operation of the well into the future if the Village is seriously concerned about potential damage to the lakes. Going back to Village Board's president Jim Wagner's statement at the onset of the drilling plans in 2005; "If we see we are doing any damage to the lakes, we will quit pumping". We must hold him and the Board to that statement if we are to believe they are sincere in their attitude toward these beautiful gems left to us by the glaciers.



The success of this theory is dependent upon continued measurements of flow rates, which we intend to do. It is also dependent upon the PLMD's attention to the Village's actions on this issue.

The PLMD members are to be commended on their follow-up of challenging the improper drilling practices during the initial tests made by the Village on the Caine property in March of last year. More attention must be paid to future tests that might occur, because of how the Village glossed over the results of our spring flow testing, all to their favor.

They chose the most irregular data from our flow rate testing, essentially debasing our monitoring program and discharging our efforts as meaningless. They ignored data from our most consistent springs in their report. Also, they were basing their results on only a WEEK of testing, which, when compared to our 3 years of monitoring, can't be reliable as to determining the effect on the aquifer flow.

And, like current interest in water diversion issues, such as the Great Lakes Compact, our scientific data will have to be strongly considered to limit some expansion plans of the Village.

Ecologically yours,

Pete Kumlien,

Former instructor of science at MSOE

Former Two term Secretary, PLMD and Property owner, Upper Phantom Lake

## Unapproved Minutes - Annual Meeting - August 23, 2007

Steve Barber, Chairperson, called the Annual Meeting of the Phantom Lakes Management District to order at 7:02 pm. Other Board members in attendance were, Secretary Steve Todd, Treasurer Steve Verduyn, Carol Fait, Grace Graham, Town of Mukwonago Representative David Dubey and Waukesha County Representative Karen McNelly. There were 32 people in attendance, 24 riparian owners and 8 non-residents, including Robert Pakulski (Harvesting Manager), Bernie Fenelon (GZA), Steve Gospodarek (DNR), Jeffery Thornton (SEWRPC), and Dennis Nork (Lake Patrol).

S. Barber opened the meeting asking all those in attendance to sign in if they have not already done so.

**Chairman's Report** – After last year's controversial swan issues, S. Barber stated that the DNR is still allowing applications to adopt a swan (s). G. Graham mentioned that she has seen approximately 21 Mute Swans last week in the channel and was unsure if any of them were adopted.

S. Barber stated the PLMD has received a grant for the Mukwonago and the Lower River Basin study. The project will cover the entire River Basin with Eagle Spring Lake Management District funding the Upper River and PLMD funding the Lower Basin, both with financial assistance from the DNR.

S. Barber attended Wisconsin Association of Lakes meeting of the League of Conservation Voters, and Wisconsin Association of Lakes meeting in Plainfield. Both meetings addressed the problems that Municipal Wells are causing with ground water availability. The PLMD adopted a Lake Protection Ordinance in January of 2007 in attempts to help protect Upper Phantom Lake's groundwater basin.

**Approval – Minutes of August 24, 2006 Annual Meeting** – The minutes were published in the District's August 2007 newsletter; therefore the minutes were not read. Michael Graczyk made a **Motion** to accept the 2006 Annual Meeting minutes as written. Second by Steve Todd, motion carried.

**Chapter 33/Legislative Updates** – S. Barber introduced Mr. Jeff Thornton (SEWRPC). Mr. Thornton stated the WAL conference April 17<sup>th</sup>-19<sup>th</sup>, 2008 will be offering a training course on Lake District Commissioners responsibilities and duties. Mr. Thornton provided memos for everyone in regards to different websites on legislative changes in litigation and information on Hydrilla. Comments are being accepted to express your own positions on NR 115 Shoreland Zoning with several Districts already expressing their viewpoints. The new NR115 adopts a common lot size for both sewer and un-sewer lots, standards for impervious surfaces, and lake and non-lake properties lot size requirements in certain classes, and revises the list of exempt and permitted structures covered within the shoreland zone.

The Senate Bill 197 is proposing the limiting of phosphorus fertilizers in all urban areas across the state. This would provide exemptions for new lawns or lawns in which a soil test would show the need for phosphorus.

Encouraging everyone to pay attention to what is going on in the Legislature, Mr. Thornton recommended contacting your legislators with your viewpoints.

A new invasive water plant Hydrilla (found in Marinette County) is supposed to be worse than the current Eurasian Water Milfoil. Hydrilla spreads rapidly and mechanical harvesting and/or chemical treatment does not get rid of this plant. More on this topic should be available at a seminar hosted jointly by Wisconsin Chapter of the American Fisheries Society and Wind Lake Mgmt. District on February 16, 2008, at the Hyatt Hotel in Milwaukee.

Last year a motion was put forth in front of the Conservation Congress marking the whole Mukwonago River System as an exceptional and outstanding water resource and it passed, currently only parts of the river are considered as such. David Fait made a **Motion** for the PLMD to support the designation of the entire Mukwonago River system as an exceptional and outstanding water resource. Second by Michael Graczyk, motion carried with K. McNelly abstaining.

**Lake Patrol** – Officer Dennis Nork gave a special thank you to the PLMD for their support in the boating safety class. During the period of July 22, 2007 to August 18, 2007, there were 42 hours of patrol with 9 citations and 24 warnings given. One warning issued was for fast boating too close to the swim area of the YMCA Camp, which is an ongoing problem.

He reminded people once again to call the Police if they have a concern or see strange behavior on the lake. Questions arose as to the safety on the lake during this high water (flooding) condition. The town or village can have an ordinance or issue a public safety notice to enact a slow-no-wake during high water levels; currently there is no ordinance for the Phantom Lakes. The water currently is up to or above some piers.

**Fish Management Report** – Steve Gospodarek (DNR) stated there is a fish hatchery quarantine due to the Viral Hemorrhagic Septicemia outbreak. He urged all boaters to make sure you thoroughly drain your live wells before entering another lake, and do not transport any water from one lake to another. The DNR is not doing any stocking, but allowing some private certified hatcheries to stock fish. Other discussions included blue-green algae and zebra mussels.

### **Lake Monitoring Report**

**Spring Flow Report** – Pete Kumlien (resident) has been monitoring the springs since March of 2005. He presented graphs that show the rise and fall in the spring flows in the last 2 years and 4 months. It showed that it has taken approximately all of this time to make a complete cycle from the highest to lowest back to highest flows. This and future data will be valuable to evaluate if a new municipal well is having an impact on the lake. He encouraged everyone to research what is happening with our water, write your legislators, and attend the Village's Public Works Committee meetings where the issues are discussed. We have to do something now, if we wait, later will be too late. A special thank you was given to Mr. Kumlien for all his dedication in the sampling the springs on a regular basis.

**Water Sampling Report** – Richard Jenks (resident) has been doing water sampling on the lakes for the past three years. The Phantom Lakes are lucky to have good water quality and a diversity of plants. Stevens Point does the detailed analysis of the water samples in the spring and fall. Madison does the summer samplings and tests for chlorophyll and phosphorus. We test the water samples for clarity, dissolved oxygen and temperature. He demonstrated how the secchi disk works. April had 13 feet of clarity compared to August's only 4-5 feet. Month to month sampling over the years has not varied to any significant degree. Mr. Thornton gave a special thank you to those who have been monitoring the lakes, continued sampling is a good way to check your lake's health, and it will show you signs if your lake needs help before it gets out of hand. Mr. Jenks stated that the reports are available on the DNR website for our lake as well as other lakes. S. Barber gave a special thank you to Richard Jenks for his continued dedication to monitoring the lakes water.

### **Plant Management Report**

**Harvesting Report** – Robert Pakulski (Harvesting Manager) stated harvesting is going well except for all the truck repairs, the truck has had many breakdowns this year. Residents stated there might be a need for a better harvesting schedule.

**Refurbish/New Harvester** – Robert Pakulski's search to find a newer truck has not had any feasible possibilities as of yet. Unfortunately, there is no grant funding to help with the purchase of a newer truck, however the District could apply for possible grant funding for refurbishing the current harvester. A new harvester could cost approximately \$150,000, compared to refurbishing costs of approximately \$88,000. Discussion took place of the possibility of refurbishing the harvester over the next several years. Jeff Thornton felt the DNR would be more adapt to help with financial assistance if it costs were split up over several years. Robert Pakulski will look into which repairs are needed first, and come up with some kind of yearly scheduling to refurbish the harvester.

**Village Well** – With the casing for the Village's proposed new municipal well installed on the Caine Property last fall, S. Barber stated the PLMD sent out awareness letters to those locally around the site. Pumping tests done in March of 2007 resulted in indecisive results. Done during wet and thawing conditions, the test procedure showed a 20% water loss onto the ground surface near the test well, allowing for possible recharging of the aquifer. Ruckert & Mielke's (R&M) stated in their report that a municipal well at this site would not impact the Phantom Lakes. The August 22<sup>nd</sup> meeting at the Village of Mukwonago Hall discussed a group modeling study of the groundwater. There was no confirmation of a well going in on the Caine property. S. Barber introduced Bernie Fenelon (GZA) who explained the testing procedures and how their findings differ



**Phantom Lakes Management District  
Proposed Budget 2009 - Income and Expense**

**General Operating Fund (G.O.F.)**



	Actual 2007	Budget 2008	Actual * 2008	Estimated 2008	Budget 2009
<b>Income</b>					
<b>Beginning Balance</b>	24,153.50	18,529	30,913.15	30,913	33,520
<b>Receipts</b>					
<b>Grants:</b>					
• RP 151-08 - Plan for Muk & Lower Basin	7,500.00	-	-	-	-
• New/Refurbish Equipment	-	50,000	-	-	51,250
Interest	188.46	215	115.32	150	200
Storage	150.00	150	150.00	150	150
<b>Donations:</b>					
Fish Stocking	-	100	-	-	-
Phantom Ranch Bible Camp	300.00	450	300.00	300	450
Other Donations	-	-	300.00	300	-
Town of Mukwonago	3,000.00	3,000	3,000.00	3,000	3,000
Village of Mukwonago	2,100.00	2,100	-	2,100	2,100
Levy	60,000.00	67,500	54,034.35	67,500	67,500
Equipment Sales	20.00	-	-	-	-
Miscellaneous	-	-	1.00	-	-
<b>Transfer from Lake Protection Fund</b>					
• Legal Fees/Consultant/Well Study	23,000.00	-	-	-	-
<b>Transfer from Equipment Fund</b>					
• New/Refurbished Equipment	-	50,000	-	7,300	51,250
<b>Total Income</b>	<b>\$ 96,258.46</b>	<b>\$ 173,515</b>	<b>\$ 57,900.67</b>	<b>\$ 80,800</b>	<b>\$ 175,900</b>
<b>Total Balance</b>	<b>\$ 120,411.96</b>	<b>\$ 192,044</b>	<b>\$ 88,813.82</b>	<b>\$ 111,713</b>	<b>\$ 209,420</b>
<b>Expense</b>					
<b>Administrative Expenses</b>					
Conventions	-	650	-	650	650
Financial Clerk	4,950.70	5,500	2,910.59	5,500	5,700
Harvesting Manager	2,400.00	2,400	800.00	1,600	1,600
Miscellaneous	1,121.63	1,500	626.40	1,200	1,200
Newsletters/Notices & Web Site	703.80	500	-	500	750
Office Supplies	217.35	600	255.09	600	600
Publications - Legal	1,611.90	1,600	608.80	1,600	1,700
WAL Dues	-	350	-	350	350
<b>Total Administrative Expenses</b>	<b>\$ 11,005.38</b>	<b>\$ 13,100</b>	<b>\$ 5,200.88</b>	<b>\$ 12,000</b>	<b>\$ 12,550</b>
<b>All Other Accounts Expenses</b>					
Contingency Fund	2,498.40	1	-	1	2,500
Donations	150.00	150	300.00	450	300
Boat Safety Class	-	-	-	-	500
Fish Stocking	-	2,000	-	2,000	2,000
<b>Grants:</b>					
• RP 102-05 Joint ESL- River Prot. 05,06,07	-	1,500	-	1,700	-
• RP 151-08 - Plan for Muk & Lower Basin	-	-	-	-	13,500
Insurance	2,808.00	3,100	900.00	4,000	4,200
Land Acquisition/Lake Protection	-	1	-	1	1
Legal Fees/Consultant/Well Study	22,480.55	5,000	-	-	2,500
Water Monitoring and Lab	11.85	600	560.00	600	600
Sanitary Ordinance	300.00	300	-	300	300
<b>Total Other Accounts Expenses</b>	<b>\$ 28,248.80</b>	<b>\$ 12,652</b>	<b>\$ 1,760.00</b>	<b>\$ 9,052</b>	<b>\$ 26,401</b>
<b>Harvesting Expenses</b>					
Fuel and Oil	2,671.23	4,000	447.51	4,000	5,000
Harvesting Permit (Next Due in 2011)	-	-	-	-	-
Labor	28,596.57	31,740	5,613.93	31,740	33,300
New Equipment /Refurbishment	-	100,000	6,946.42	7,300	102,500
Remove/Put in Harvesters	620.88	1,500	90.24	1,000	1,000
Repairs and Maintenance	10,354.95	5,000	809.38	5,000	5,000
Other Harvesting/Land Rental	1.00	1	1.00	1	1
<b>Total Harvesting Expenses</b>	<b>\$ 42,244.63</b>	<b>\$ 142,241</b>	<b>\$ 13,908.48</b>	<b>\$ 49,041</b>	<b>\$ 146,801</b>
<b>Total Expenses</b>	<b>\$ 81,498.81</b>	<b>\$ 167,993</b>	<b>\$ 20,869.36</b>	<b>\$ 70,093</b>	<b>\$ 185,752</b>
<b>Net Income ( Loss)</b>	<b>\$ 14,759.65</b>	<b>\$ 5,522</b>	<b>\$ 37,031.31</b>	<b>\$ 10,707</b>	<b>\$ (9,852)</b>
<b>GOF Fund Transfers To:</b>					
Equipment Reserve Fund	8,000.00	8,000	8,000.00	8,000	8,000
Lake Protection Fund	-	100	-	100	100
<b>Total Fund Transfers</b>	<b>\$ 8,000.00</b>	<b>\$ 8,100</b>	<b>\$ 8,000.00</b>	<b>\$ 8,100</b>	<b>\$ 8,100</b>
<b>Ending Balance</b>	<b>\$ 30,913.15</b>	<b>\$ 15,951</b>	<b>\$ 59,944.46</b>	<b>\$ 33,520</b>	<b>\$ 15,568</b>

\* Actual January 1, 2008 through June 30, 2008

**Phantom Lakes Management District  
Proposed Budget - Fund Accounts**

	Actual 2007	Budget 2008	Actual * 2008	Estimated 2008	Budget 2009
<b>Equipment Reserve Fund</b>					
<b>Beginning Balance</b>	<b>49,303.44</b>	<b>58,503</b>	<b>59,494.96</b>	<b>59,495</b>	<b>61,395</b>
<b>Receipts</b>					
Transfer from G.O.F.	8,000.00	8,000	8,000.00	8,000	8,000
Interest	2191.52	1,200	1112.54	1,200	1,200
Transfer from General Savings	-	-	-	-	-
<b>Expenses</b>					
Transfer to G.O.F. - New/Refurbished Equipment	-	50,000.00	-	7,300	51,250
<b>Ending Balance</b>	<b>\$ 59,494.96</b>	<b>\$ 17,703</b>	<b>\$ 68,607.50</b>	<b>\$ 61,395</b>	<b>\$ 19,345</b>
<b>Lake Protection Fund (CD Savings)</b>					
<b>Beginning Balance</b>	<b>22,854.86</b>	<b>655</b>	<b>1,055.24</b>	<b>1,055</b>	<b>1,955</b>
<b>Receipts</b>					
Transfer from G.O.F.	-	100	-	100	100
Interest	1,200.38	25	416.87	800	100
<b>Expenses</b>					
Transfer to G.O.F.-Legal Fees/Consultant/Well Study	23,000.00	-	-	-	-
<b>Ending Balance</b>	<b>\$ 1,055.24</b>	<b>\$ 780</b>	<b>\$ 1,472.11</b>	<b>\$ 1,955</b>	<b>\$ 2,155</b>

\*\* Actual - January 1, 2008 - June 30, 2008

**Town of Mukwonago Lake Ordinances**

THE TOWN OF MUKWONAGO HAS ENACTED THE FOLLOWING ORDINANCES IN ADDITION TO STATE LAWS:

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>▶ <b>Speed Limit - 40 MPH except during the following:</b> <ul style="list-style-type: none"> <li>◆ <b>Slow No Wake 7:00 P.M. – 10:00 A.M.</b><br/>Monday - Friday</li> <li>◆ <b>Slow No Wake 4:00 P.M. – 10:00 A.M.</b><br/>Saturdays, Sundays &amp; Holidays</li> </ul> </li> <li>▶ No racing on any lakes</li> <li>▶ Water-skiing in <b>COUNTERCLOCKWISE</b> pattern only</li> <li>▶ <b>NO</b> water-skiing any day <b>before 10:00 a.m.</b></li> <li>▶ <b>NO</b> water-skiing anytime <b>after 7:00 p.m.</b><br/>Monday - Friday</li> </ul> | <ul style="list-style-type: none"> <li>▶ <b>NO</b> water-skiing anytime <b>after 4:00 p.m.</b> Saturdays, Sundays, and Holidays</li> <li>▶ Aquaplanes and parasailing are prohibited</li> <li>▶ <b>NO</b> Swimming from unmanned boats unless anchored</li> <li>▶ <b>NO</b> swimming more than 150 feet from shore or 50 feet from raft or boat</li> <li>▶ <b>NO</b> swimming in channel between Upper and Lower Phantom Lakes</li> </ul> <p>A complete copy of the <b>Town of Mukwonago Lake Ordinances</b> may be obtained from the <u>Town Clerk's Office</u> at W320 S8315 Beulah Road, Mukwonago, WI 53149-9135, (262) 363-4555</p> |
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**Fishing the Phantoms - By Steve Verduyn**



Fishing and the fisheries on the Phantom lakes continues to be very good! Many have commented that it seems the size of the bluegills seems to be getting slightly larger. Some are attributing this to anglers releasing more of their fish, and less anglers catching them from off their spawning beds. Remember, those fish on spawning beds are ensuring fish for the future!

The weekly bass fishing contest on Wednesday nights goes from 6 to 9pm every Wednesday night at JR's Resort. All fish must be brought in alive and released alive (unless a trophy or wounded) back into the lake. There have been a number of 20+ inch bass brought in this year.

The Phantom Lakes Management District hopes to be able to stock some fish this fall, but we are dependent upon the Wisconsin Department of Natural Resources issuing us a permit to do so. Last year, the DNR put an emergency stop to all private stocking in Wisconsin as there was concern about the health of stocked fish in light of the discovery of the VHS fish disease. We'll be in touch with the DNR soon on obtaining a permit for 2008. If we are successful, we again plan to stock both gamefish and panfish in both lakes. The Phantom Lakes Management District would like to thank Wonago Sports for their active and continued support and donations for stocking fish in the Phantoms..

## Household Hazardous Waste

Most hazardous products are labeled with key words to identify them. Some of the signal words are **Caution, Warning, Danger, Poison, Flammable, Combustible, and Corrosive**. Some typical household hazardous wastes include: gasoline, insecticides, herbicides and pesticides; oil based paints, stains, thinners, strippers, and solvents; as well as some household cleaners; and chemicals.

Every year Waukesha County has a hazardous waste collection. Unfortunately, we were unable to notify you about this for Mukwonago's collection was on May 17th this year. However, please keep this in mind for next year, or if need be, there are two sites that will be collecting from Waukesha County residents in September.

Saturday, September 13, 2008 - Oconomowoc - City Public Works Garage - 630 South Worthington Street.

Saturday, September 27, 2008 - New Berlin - Municipal Garage - 16550 West National Ave.

All sites are open to any county resident (proof of residency required). There are also three year round sites in Menomonee Falls, Muskego, and Waukesha.

Muskego, Oconomowoc, and Waukesha sites also accept agricultural and qualified business hazardous waste under a 2008 DATCO grant. Pre-registration is required.

For more information go to [www.waukeshacounty.gov/recycling](http://www.waukeshacounty.gov/recycling) or call (262) 896-8300.

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## Unapproved Minutes 2007 - Continued from page 3

from R&M's (Village of Mukwonago's' testing engineers). Mr. Fenelon described the different ground layers; how the clay layer separates the shallow aquifer from the deep aquifer. The shallow aquifer feeds the springs on the lake. Mr. Fenelon's explanation of the water loss at the rate of 100 gallons per minute leaking on the ground and possibly a re-charging of the shallow aquifer and yet the shallow aquifer was showing a drawdown, strongly showed that water may be getting through the clay layer and test results being flawed. The District residents wanted to know what type recourse that we have available, and can the DNR help. K. McNelly thanked GZA for their work and commented the DNR can only do what the law allows them to do. She wished the DNR had control to do more, and the need for us to work with our state legislators. Frank Davenport (East Troy resident and attorney) spoke on how they are working with Lake Districts and others (at no cost to the District) to have the courts interpret Act 310. The DNR's interpretation of Act 310 is that it limits them on when to do an environmental assessment for Municipal Wells, which we believe contradicts the Wisconsin Public Trust Doctrine. This statewide problem needs addressing by as many as possible. S. Barber pledged \$1,000 (of his own monies) to help defray some of the costs with this endeavor. Richard Jenks made a **Motion** for the PLMD to join the Notice of Claim that would have the courts interpret Act 310 or declare it unconstitutional, seconded by David Fait, motion carried with no opposition. Discussion took place of exactly how this could help save the lakes and our own private wells.

**Grants** – S. Barber reiterated that we are not able to get grant funding for a newer truck and would be grateful to anyone wanting to donate or is willing to give the PLMD a partial donation on a truck. The PLMD does qualify to submit a grant application to refurbish the harvester and will do so before June of 2008. All grant monies from the DNR in this category are gone for 2007. Grants for the Lake Management Plan (two grants) were closed in 2006. The River Protection grant (combined with Eagle Spring Lake), will be closed out at the end of 2007 and monies have been put in the Proposed 2008 Budget to pay for the anticipated cost of approximately \$1,500. The latest grant (Lower River Basin) anticipates a closing date to be at the end of 2009.

**Audit Report** – S. Verduyn had copies of the audit report and as stated in the report, the financial statements present fairly, in all material respects, the financial position of Phantom Lakes Management District as of December 31, 2006, and the results of its operations for the period, ended in conformity with generally accepted accounting principles.

**Adoption of Proposed Budget for 2008 (67,500)** – S. Verduyn gave the overhead presentation on the proposed 2008 budget, and all questions asked were answered.

**Income** – The 2008 levy of \$67,500 increased from last year 2007's levy of \$60,000.

**Expenses** – Financial clerk, fish stocking, and harvesting expenses, etc., all showed an increase in 2008, mainly due to the cost of inflation. Harvesting expenses for 2007 has exceeded expected costs, due to break-

downs on the truck, and the increased rate charged from the employer service that the PLMD uses. Re-examining the PLMD Insurance allowed for a decrease in expenses when compared to Actual 2006.

**Funds** – Currently as of June 30, 2007, the Equipment Fund has a balance of \$50,395, and Lake Protection Fund has \$23,348. Total of all accounts is a balance of approximately \$111,000. The PLMD will continue to add to the Equipment Fund, and use this fund for the purchase of a newer truck and refurbishing of the harvester.

Sharron Gamble made a **Motion** to accept the Proposed 2008 Budget as written, second by Robert Muth. Discussions included the lack of budgeting enough for Legal Fees/Consultant/Well Study Expenses for 2008 and what expenses the PLMD may incur. Richard Jenks made a **Motion** to increase Expense - Legal Fees/Consultant/Well Study Expense to \$15,000 and use the General Operating Fund, which would leave us with only approximately \$8,500 as a beginning balance in the General Operating Fund. There were three calls for a second on the amendment; with no second to the amendment, the amendment failed. S. Barber called for a vote to accept the Proposed 2008 Budget as written. Motion carried with 23 yes and 1 No vote.

**Adoption of Levy for 2008** – S. Verduyn read the Resolution 2007-03 that now it "now, therefore, be it resolved as follows:

1. That a tax of \$67,500 shall be levied upon all properties in the Phantom Lakes Management District for use by the District for the calendar year 2008.

2. That the District shall certify this amount, forward the same to the Town and Village clerk for placing the same as a levy on District properties."

Michael Graczyk made a **Motion** to adopt the levy of \$67,500, second by Kenneth Davis, motion carried with no opposition.

**Election of Two Board Members** – S. Barber stated that he would not be able to serve another term although S. Verduyn is willing to serve another term. S. Barber gave three calls for nominations with no response. He continued to ask for volunteers other than Steve Verduyn's, and after some discussion of his prior experiences, Gregory Blohm volunteered. Sharron Gamble made a **Motion** to nominate and elect Gregory Blohm to serve on the PLMD Board, second by David Fait, motion carried with no opposition. David Fait made a **Motion** to nominate and elect Steve Verduyn to serve on the PLMD Board, second by Gregory Blohm, motion carried with no opposition.

**Date for 2008 Annual Meeting** – Thomas Davidson made a **Motion** to the next Annual Meeting of the PLMD to take place on August 28, 2008. Second by Kenneth Davis, motion carried with no opposition.

A special thank you was given to Steve Barber for his time and commitment he has given to the PLMD

**Adjourn** – At 9:58pm Kenneth Davis made a **Motion** to adjourn, second by Joseph Gracheck; Motion carried with no opposition. Page 6



## Sampling Water Quality

By Richard Jenks



Water quality parameters in both the Upper and Lower Phantom Lakes are sampled on a monthly basis from ice off in April to freeze up in December. In addition to physical and meter readings, Spring and Fall water samples are sent to the University of Wisconsin Stevens Point for detailed chemical analysis. During June, July and August, chemistry monitoring for phosphorus and chlorophyll is done by collecting a water column sample with a "chloropulski". Samples are sent to the State of Wisconsin Hygiene lab in Madison for analysis. Water quality information for the Phantom Lakes has been collected and recorded periodically from 1979 to the present.

Sampling was made much less time consuming and more accurate with the PLMD's purchase 3 years ago of a YSI model 85 hand held oxygen, conductivity, and temperature meter.

Data collected consists of:

- Secchi-disc readings
- Temperature-depth profiles
- Dissolved oxygen-depth profile
- Conductivity
- Total phosphorus and chlorophyll-a concentration
- Ph
- Lake staff gauge level

Temperature and dissolved oxygen depth profiles are measures of stratification. (Lower Phantom does not thermally stratify for any significant period of time during the summer, which is not unusual for shallow lakes.) Upper Phantom is dimictic, mixing completely two times per year and subject to thermal stratification during the summer and winter. Thermal stratification is a result of the differential heating of the lake water, and the resulting water temperature-density differences at various depths. This condition has a major impact on the chemical and biological activity of the Lake.

Dissolved oxygen levels are one of the most critical factors affecting the living organisms of a lake ecosystem, as it is essential to most aquatic organisms, especially fish. Data indicates that dissolved oxygen levels are generally higher in the shallower layers of Upper Phantom Lake (the result of a combination of interchange between the water and atmosphere, stirring by wind action, and production of oxygen by plant photosynthesis). Dissolved oxygen levels are lowest at the bottom of the Lake due to decomposer organisms and chemical oxidation possesses utilizing oxygen in the decay process. Note that when a lake becomes thermally stratified as described above, mixing does not occur and the surface supply of dissolved oxygen is cut off from lower levels. Dissolved oxygen levels continue to decline throughout the summer. Complete mixing does occur twice each year with the Spring and Fall turnovers.

The solubility of oxygen and other gases is dependent on water temperature. Colder water can hold more dissolved oxygen than warm water. Depleted oxygen levels

cause fish to move upward, nearer to the surface of the lake, where higher dissolved oxygen concentrations exist. This migration, when combined with temperature, can select against some fish species that prefer the cooler water temperatures that generally prevail in the lower portions of the lake. When there is insufficient oxygen at the preferred depths, fish are susceptible to summer kills, or, alternatively, are driven into the warmer water portions of the lake where their condition and competitive success may be severely impaired. In addition to these biological consequences, the lack of dissolved oxygen at depth can enhance the development of chemoclines, or chemical gradients, with an inverse relationship to the dissolved oxygen concentration. For example, the sediment-water exchange of elements such as phosphorus, iron, and manganese is increased under low oxygen levels.

Specific conductance is a measure of the ability of the water to conduct an electric current. Conductivity is reported in micromhos per centimeter (umhos/cm) and is directly related to the total dissolved inorganic chemicals in the water. As the amount of dissolved solids increases, the specific conductance increases. The presence of free elements such as phosphorus, iron, and manganese, significantly affect water quality as these nutrients and salts are mixed into the lake and become available for algal and rooted aquatic plant growth. Specific conductance of Upper Phantom Lake ranges from 526 to 545 umhos/cm; for Lower Phantom the range is 499 to 562 umhos/cm. These values are within the expected range of values commonly observed in lakes in southeastern Wisconsin.

A Secchi disk is an 8-inch diameter plate with alternating quadrants painted black and white that is used to measure water clarity (light penetration). The disk is lowered into the water until it disappears. Three factors may affect Secchi depth; planktonic algae, suspended sediment, and stained water color. Measuring Secchi depth helps determine if algae are present in low numbers, or if a bloom is occurring.

Since 1999 local lake monitoring with Secchi disk data has assisted in a collaborative research effort with the University of Wisconsin Environmental Remote Sensing Center by taking Secchi readings on dates when the satellites were over their lakes. This has allowed the university to successfully calibrate computer programs that use satellite imagery to predict Secchi disc depth and other water quality parameters on lakes. The ultimate goal is to put the satellite data into everyday use by making the water clarity data derived from the satellite imagery available to the Wisconsin DNR and to the public.

Citizen Lake Monitoring Network information is on the University of Wisconsin Stevens Point web at <http://www.uwsp.edu/cnr/uwexplakes/clmn/>. Lake data and results are available on the DNR web site at <http://dnr.wi.gov/lakes/CLMN/>. If you would like to see a "chloropulski" in action, learn where the staff gauge is located, or help with the sampling process, contact Dick Jenks.

## Grant Projects

The District has several projects that they are currently involved in with the help of grant funding or with the opportunity of grant funding.

- The Mukwonago River Watershed Nutrient Study, which has been funded by the Phantom Lakes Management District (PLMD), Eagle Spring Lake Management District (ESLMD) and the Wisconsin Department of Natural Resources (WDNR) River Planning Grant Program. Sampling assistance was provided by Eagleville Charter School parents, teachers, fifth grade students with guidance from Tom Day (ESLMD Chairperson). This project is providing base line and run-off data for the headwaters of the Mukwonago River and the Jericho Creek tributary. The results from this project may be used to help evaluate the impact of current and future land use development, storm water management, farming practices, and the potential success of future municipal/landowner restoration projects to reduce nutrient loading. The final report is in its finishing stages and is expected to be available for viewing by the Annual Meeting.
- The Planning for Mukwonago & Lower River Basin Study is part of a bigger project that will cover the entire area from the headwaters of the Mukwonago River down to the river's confluence with the Fox River. Southeastern Wisconsin Planning Commission has been contracted to do the study. With grant assistance from the WDNR, the PLMD and ESLMD are working together (PLMD Lower River Basin & ESLMD Upper River Basin) with in-kind contributions from the Mukwonago School District, Friends of the Mukwonago River and The Nature Conservancy to fund this project.
- Refurbishment of the District's aquatic plant harvester/conveyor project. Currently the District has submitted a grant application to the WDNR for partial funding of this project. Although our odds of getting a grant do not look good, when compared to what was allowed last year, we will be optimistic and hope for the best. See Harvesting Report on page 9.


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## Legislative Update

By Steve Todd

There are several topics that may be of interest to you in regards to Legislative issues that are being discussed or have passed in the last year.

### New Pier Regulations

 On April 16<sup>th</sup>, 2008, new legislation went into effect. The new law exempts most existing and new piers from permit requirements.

The exempt pier sizes are:

- Maximum width 6 feet (if not located in an Area of Special Natural Resource Interest)
- Maximum 8 feet by 8 feet loading platform at the end of the pier.
- Length allowed is the length needed to moor your boat or use a boat lift, or 3 foot water depth, which ever is greater.

- Does not interfere with the rights of other riparian owners

Two boats are allowed for the first 50 feet of frontage, and 1 boat for every additional full 50 feet.

If your pier is not exempt you may be grandfathered. To be grandfathered you have to meet the following criteria:

- Pier was placed prior to 2004
- Main stem is a maximum of 8 feet wide
- Loading platform at the end of the pier is a maximum of 200 square feet or a maximum of 300 square feet if it is 10 wide or less
- Does not interfere with the rights of other riparian owners

You must register your pier with the DNR before April 1, 2011 if your pier is not exempt and does not meet the grandfathering requirements; you will have to apply for a permit from the DNR. The DNR has a brochure "Pier Planner" on their website [www.dnr.wi.gov](http://www.dnr.wi.gov).

### Phosphorus Bill

The Wisconsin Association of Lakes (WAL) is aggressively pursuing a phosphorus ban in lawn fertilizers. Phosphorus that gets into the lake can cause excessive plant growth. The bill passed the Senate and the Assembly Natural Resource Committee, but was never brought to a vote in the Assembly.

### Slow No Wake



A bill passed the Senate that would have required Slow-No-Wake within 200 feet of the shoreline, pier or buoy. The bill did not come up for a vote in the Assembly. Wisconsin Association of Lakes (WAL) is expected to pursue the 200 feet state regulation for fast boat traffic from shorelines/pier or buoy again this year. The current state requirement is 100 feet from a pier. WAL understands that this would restrict recreational opportunities for small lakes and has indicated that a local opt out provision would be considered in potential legislation.

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## Well Update



There are two municipal well topics of interest that continue to be discussed at the monthly meetings.

- The Village of Mukwonago is proceeding with their shallow municipal well just south of Upper Phantom Lake. On May 6, 2008 the Village Board approved the lease agreement with the property owners (Caine property) for the well site. Chairperson, Steve Todd presented at the January, 2008 Village Public Works Committee meeting and asked for more monitoring and testing of the groundwater level when the well is turned on. Also, it was explained that the municipal well terminates at the same depth as some residential wells in the area. Steve explained that one of the private wells, of the District, monitored during testing showed a 5 foot drop in water level after only 2 days of pumping. Other municipalities have provided well guarantees for the neighbors of new municipal wells. The Village committee members asked Steve Todd to come back in when the site is developed to talk more about the well guarantee. The Vil-

(Continued on page 9)

## Well Update - Continued from page 8

lage does not know when the new well will go into operation.

- The District is named as a complainant on a lawsuit against the DNR and the Village of East Troy. The complaint is that the DNR did not follow the State Public Trust Doctrine by allowing the Village of East Troy to site a municipal well on the shores of Lake Beulah. State law requires the DNR to protect public waterways from degradation. The PLMD along with Eagle Spring Lake Management District (ESLMD) and various others believe that the DNR is not following State law when it is approving municipal well sites near spring fed lakes. The complaint has been filed, but no other update is available at this time. Joining this lawsuit did not cost PLMD any money.

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## Dam Update

The dam that creates Lower Phantom Lake was slightly damaged during the June flooding. After the flood water receded, the lake level was drawn down and the dam was inspected by the DNR. After talking with the DNR, it sounds like they are going to be requiring an emergency spillway be constructed on the south side of the dam. This will allow flood waters to flow next to the dam and not weaken the soil around the dam. The Village of Mukwonago has already done some minor repairs to the soil around the dam and no additional work is needed at this time. The inspection report should be available at the annual meeting and another update will be given at that time.

PLMD would like to thank the Village of Mukwonago including the Police and Fire Departments. They responded quickly and cooperatively with the DNR to stabilize the dam and keep people safe.

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## Lake Safety

We have included once again a brief summary of the Town's Ordinances for Phantom Lakes (page 5). **Please advise your friends, guests, relatives, and renters using the lake of the "local" regulations.**

Many times friends or relatives of lake residents are stopped by the Lake Patrol because they're not familiar with the regulations, i.e., **slow-no-wake hours, life preserver/cushion requirements, and that the certificate of registration must be on all motor boats when in operation.**

It is unlawful to operate a motorboat within **100 feet of any dock, raft, pier, or buoyed restricted area** on any lake at a speed in excess of "slow-no-wake." Lake Patrol has reported boats coming **to close to the swimming buoy by the Phantom YMCA Camp** and piers around the lake. Please keep our lakes safe and remember to keep the fast boat traffic 100' or greater away from **any pier or swim buoy.**

The Lake Patrol will stop you **only** if they see something that is wrong, for example, you have an expired boat registration sticker. You generally receive these in March or April. Once stopped they have the right and generally will

check for safety violations, etc. However, the DNR can randomly stop and go thru a check.

This spring the lake patrol did a free boat safety check. Officer Nork reported that almost every boat checked had violations. Common violations were uncovered battery terminals, like jackets in poor condition, and no fire extinguisher (for boats 16 feet or larger). No tickets were written, however boaters are reminded to read and follow Wisconsin Boating Regulations.

In June 2007 - September 2007 there were 62 citations issued and 105 written warnings. Your attitude may make the difference as to whether you get a warning or a citation (Be cooperative, polite, and honest!).

This year is the third year of the **States mandatory boating education bill** and the DNR and our Lake Patrol will be **strictly** enforcing this law! Persons born on or after 01/01/1989 and at least 16 years of age must have successfully completed a DNR Boating Safety Course and possesses a safety certificate issued by the DNR, another state, or Canadian Province. This safety certificate **must** be carried when operating a motor boat or PWC, **no matter** what adult, parent, guardian, etc. is aboard the same boat.

Also of importance Wisconsin Statutes prohibit launching a boat, boat trailer, or boating equipment if there are any aquatic plants or zebra mussels attached.

A special **thank you to Dave and Carol Fait who graciously donated \$300.00** to the PLMD for purchasing life jackets for the Phantom YMCA Camp.

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## Harvesting Report

The District has a new dump truck for the 2008 season.



Substantial repairs to the old dump truck plagued the 2007 season. This spring our harvesting manager Bob Pakulski searched the area for a replacement truck. The

Board decided to purchase a 1991 Chevy dump truck from B&H Lumber in Mukwonago. Tim from B&H was very kind to give us his lowest price possible on the truck. The truck needed a box and a little body work, but as of this report the truck has been running good. The old dump truck will be sold after the harvesting season.

The harvesting season runs May through September. The District contracts for two employees 40 hours per week during this period. These employees follow a DNR approved harvesting plan for the lake. Any questions about harvesting operations can be forwarded to Bob Pakulski at 363-4344.

The harvester is 14 years old and is in need of an overhaul. A grant has been applied for from the State Waterways Commission. The grant request is to refurbish the harvester/conveyor. We should know if the grant was approved by the annual meeting. Our cost to refurbish the harvester will be around \$50,000. Whether we receive some grant help or not, the refurbishment will have to take place over the next few winters. More information about the harvester will be presented at the annual meeting.

## PLMD Regular Meetings

We invite the public to join us at our monthly meetings. The meetings are held on the **fourth Thursday of the month at 7:00 pm** at the **Mukwonago Town Hall Building**.

If you are unable to attend the meetings, the minutes and the agenda for the upcoming meeting are posted in the legal section of *The Mukwonago Chief* and on our *Website* - [www.phantomlakes.us](http://www.phantomlakes.us).

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### ELECTED COMMISSIONERS

Steve Todd - - - - - 363-7044  
Carol Fait - - - - - 363-7017  
Grace Graham - - - - - 378-0867  
Greg Blohm - - - - - 363-2101  
Steve Verduyn - - - - - 363-3606

### APPOINTED COMMISSIONERS

Karen McNelly  
Waukesha County - - - - - 392-2740  
Dave Dubey  
Town of Mukwonago- - - - - 363-5456

### SECRETARY/TREASURER ASSISTANT

Gina Krause - - - - - 594-3583

### HARVESTING QUESTIONS

Bob Pakulski - - - - - 363-4344

### VILLAGE OF MUKWONAGO

[www.villageofmukwonago.com](http://www.villageofmukwonago.com)  
363-6420

### TOWN OF MUKWONAGO

[www.townofmukwonago.us](http://www.townofmukwonago.us)  
363-4555

### WAUKESHA COUNTY

[www.waukeshacounty.gov](http://www.waukeshacounty.gov)

### LAKE PATROL

24-hour dispatch **Non-Emergency**  
May 1st - October 1st - - - - 363-6434  
**Emergency - - - - - 911**

Phantom Lakes  
Management District  
PO Box 212  
Eagle, WI 53119

