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Letter from the President

As the July 11, 2015 Annual Meeting approaches, I look back at the past year with a great deal of satisfaction, some frustration, and sustaining excitement for projects, lake quality issues, and events that the Beaver Dam Lake Management District (BDLMD) has accomplished during the 2014/2015 fiscal year.

As a result of the BDLMD applying for a Acquisition Grant from the WDNR it was discovered that the property lines along Grove Street were inaccurately delineated on the deeds at the Barron County Register of Deeds. To receive approval of any Acquisition Grant the WDNR requires that the property lines be accurately plotted. In October 2103, I along with several Lake District commissioners plus the City Of Cumberland Mayor – Tom Mysicka, Director of Public Works – Keith Hardie, and City of Cumberland legal Council Pete Van Sickle met with all the property owners on the Library Lake side of Grove Street to discuss the need to correct property lines. It was agreed that the property lines needed to be corrected and that all the properties had to be surveyed simultaneously. During 2014, a surveyor was hired to survey the properties, and create a Certified Survey Map or CSM. Once the CSM was completed and all the property owners were in agreement with the CSM, they went before the City of Cumberland Planning Committee for approval of the CSM and associated non-conforming issues with building setbacks, etc. With the approval by the Cumberland City Council of the Planning Committee recommendations the final filing of the revised property lines and changing of the Deeds was finalized. The cost of the surveying and filing fees were covered by the BDLMD with unspent dollars from an earlier WDNR grant for the Neurer Storm Water Retention Pond. Although this project has taken over 1.5 years to accomplish, it opens the doors for the BDLMD to again apply for grants to cover the cost for a NE Library Lake Storm water filtration pond.

With the WDNR revamping their schedule for applying for and the awarding of Lake Protection Grants the BDLMD applied for 4 grants during the past fiscal year. On Dec. 10, 2014, an Aquatic Invasive Species (AIS) Monitoring grant for offsetting 75% of the follow up monitoring cost for this year's Eurasian Water Milfoil treatment was submitted. Unfortunately

the competition for the available dollars from other lake districts resulted in our grant application being denied. However in Feb. 1, 2015 the BDLMD applied for 4 grants and received approval for 3 totaling approximately \$147,000.

The denied construction grant for the NE Library Lake storm water filtration pond of \$300,000, although a disappointment, will not result in any delay in the project moving forward. Two Planning Grants for storm water treatment basins addressing the storm water at the north end of the City, and another for the storm water coming into the SW corner of Library Lake were awarded. As a result of resolving the property line issue on Grove Street, an Acquisition Grant to acquire easements for the construction of a Storm water basin in the NE corner of Library Lake was applied for and successfully awarded.

I was requested to attend several local area Lake Association informational meetings on the subject of Lake District formation. I quickly learned that there are common issues that all lake shore property owners are concerned about such as, water quality, invasive species of all kinds, financing the cost to address lake issues, encouraging voluntarism, availability of grant dollars, providing educational opportunities for association members, etc. The BDLMD Members are very fortunate to have had forward thinking and committed individuals who saw the need back in the late 1980's and early 1990's for a Lake District. Through their efforts and those that have followed in the years since as commissioners and volunteers for specific assignments, Beaver Dam Lake remains one of the highest overall quality lakes in Wisconsin.

Keeping Beaver Dam Lake a top quality lake requires never ending vigilance to address invasive species of both aquatic plants and invertebrates. The most common of the plant species are Eurasian Water Milfoil, Curly-leaf pondweed, Purple Loosestrife, and less mentioned but very invasive Japanese knotweed. In addition there are a number of potential invertebrate species that we need to keep out of our lake. Zebra Mussels, Chinese mystery snails, and Rusty crayfish are the most prevalent state wide, with spotty findings of Asian clam, Red swamp crayfish and Quagga mussels. Fortunately, the Curly-leaf pondweed has been almost eradicated from Beaver Dam Lake, while dealing with EWM is like trying to herd cats. The moment you think that an area of EWM is eliminated another bed shows up. This is due to the fact that even small pieces of EWM will re-root somewhere else. Purple Loosestrife remains a concern but is under control. We are fortunate to not have seen any of the other invasive species in the lake. The 2015 treatment for EWM will be covered in a separate article in this newsletter.

Nancy Bentz - BDLMD Commissioner has announced that she will not seek re-election for another 3 year term on the BDLMD Board. Nancy was elected as a commissioner soon after the lake district was formed, and served several 3 year terms before taking a break. During her first "tour of Duty" she served as President and Secretary. She again rejoined the Board in 2000 and served as Secretary for many of those years. Nancy also spent 6 years as a member of the Wisconsin Association of Lakes - WAL Board of Directors. While on the WAL Board she served as Exhibit Coordinator for the joint WAL-WDNR-UWEX Partnership Lakes Conferences in Stevens Point. Nancy has indicated that she will stay active with lake activities by continuing to take Lake Quality measurements and producing the Annual News Letter. Thank you Nancy for your time, dedication, and support over the past years of being a BDLMD Commissioner.

The BDLMD achievements and successes during the past year just didn't happen without the support of many individuals. First the BDLMD Commissioners continued to provide direction and insight on lake matters and tasks. Many thank you's for your time and involvement. I want to thank Mayor Tom Mysicka, Keith Hardie and all the City of Cumberland personnel, as well as Barron County Supervisor Don Horstman, and Tyler Gruetzmacher - County Soil & Water Conservation for their continuing support of the BDLMD.

The BDLMD board continues to strengthen the relationship with the WDNR staff at the Spooner Headquarters, and in Barron County. Alex Smith - lakes Biologist, Mark Sundeen-APM Specialist continues to review and approve our treatment plan for EWM. Jane Malischke-Environmental Grants Coordinator kept me informed on the grant process and progress on our submitted grants. Jane made sure I didn't forget critical grant timing and submittals. And I can't forget to mention Meg Rattei-Environmental Consultant, Barr Engineering, Jay Michels-EOR Engineering and Cheryl Clemmons-Harmony Environmental for all their help and advice with EWM treatment and grant writing. I probably missed some individuals that contributed to the past years successes, but their involvement was and is appreciated. A heart felt thank you.

Looking forward to 2015, 2016 and beyond, Beaver Dam Lake continues to remain in overall excellent condition. However, that doesn't mean we can just assume that it will remain that way. We need to remain vigilant and be prepared to address the many challenges that could affect the lake. With your continued support I am positive that our lake will continue to be the "Best Kept Secret" in NW Wisconsin.

Tom Schroeder - President

2015 Eurasian Water Milfoil Treatment

The development of the Beaver Dam Lake EWM treatment plan for 2015 began almost immediately following the 2014 treatment. Using data collected during the July 2014 whole Lake Plant Survey of over 1300 points, a report was produced that summarized the results of the 2014 effectiveness. This report formed the foundation for a Jan. 2015 meeting with the WDNR, Barr Engineering, Lake Restoration and BDLMD personnel. Although the 2014 treatment was successful in numerous areas where the EWM did not reappear, there were locations where it regrew, and areas where EWM reappeared after being eradicated. Following discussion of many ideas and suggestions, the consensus of everyone was that the Whole Lake Treatment was the best approach for 2015. Due to the lack of EWM in Cemetery and Library Lake, there was no treatment scheduled for 2015.

Starting in late April and extending into May, water temperatures were taken to determine the thermocline (the depth at which there is a sudden change in temperatures and water density). The thermocline limits the depth at which the herbicide will mix. Balancing the depth of the thermocline to the depth at which the EWM grows, determines when the treatment is done. The EWM must absorb the 2,4-D herbicide to be effective. It is also necessary to treat EWM sufficiently early in the growth season to minimize effect on native plant growth.

On May 26, 2015 Lake Restoration starting treating the east part of Beaver Dam, and completed the effort in one day. The entire west lake from Hwy. 63 to Tiger Bay was completed during the next two days. Then Williams and Rabbit Bay were completed. All the treatment was done in 4 days which is a credit to Lake Restoration's planning and execution of the plan. The critical element of post treatment is the exposure time that the EWM is exposed to the herbicide. For this reason the lake was kept 2 inches below normal, up to the treatment date and then the gate at the dam was closed. This allowed the lake to gradually return to normal level over the treatment period with no outflow. The residual concentration is monitored to determine the dilution rate over time. This data is then compared to the visual results from the follow-up Aquatic Plant survey to determine the effectiveness of the treatment. The residual data was not available at the time this article was written.

Although the % EWM has declined over the past 8 years from over 25% of the total lake surface to 10% in 2014, the fact that EWM is such an aggressive plant and that even the smallest fragment of EWM can re-root itself miles from its origin requires continual monitoring and treatment. Your vigilance to avoid going through EWM with your boat and reporting sightings of EWM to the BDLMD is appreciated.

POWER LOADING CAUSES DAMAGE TO BOAT RAMPS!

Power loading (using motor power to load the boat on to the trailer) can cause damage to a lake boat ramp not visible from the water surface. The prop wash will create a force that erodes the lake bed, which can create a large hole at the end of the ramp. The eroded material can result in a mound that can build a barrier for launching and landing a boat.

Power landing can also cause damage to your boat and motor. Manual loading helps to position your boat better on the trailer and you can make adjustments as you load the boat.

Please do not power load!

Also, always be sure to check your boat and trailer for any weeds and remove the weeds completely.

Being conscientious and courteous at our lake ramps will help everyone have a great summer "At The Lake"

Water Quality Monitoring

Volunteers measure water clarity, using the Secchi Disk method, as an indicator of water quality. Volunteers also collect chemistry, temperature, and dissolved oxygen data. These measurements are recorded on the DNR website for all the lakes in the state that are currently being monitored. You can go to <http://dnr.wi.gov/lakes/clmn/> to see the data.

The following is the report for Beaver Dam Lake - "A location NE Of Eagle Pt At Deepest Section was sampled 6 different days during the 2014 season. Parameters sampled included:

water clarity - temperature - dissolved oxygen
total phosphorus - chlorophyll

The average summer (July-Aug) secchi disk reading was 14.75 feet. The average for the Northwest Georegion was 8.5 feet.

The average summer Chlorophyll was 3.1 µg/l (compared to a Northwest Georegion summer average of 16.6 µg/l).

The summer Total Phosphorus average was 13.5 µg/l. Lakes that have more than 20 µg/l and impoundments that have more than 30 µg/l of total phosphorus may experience noticeable algae blooms.

The overall Trophic State Index (based on chlorophyll) was 43. The TSI suggests that Beaver Dam Lake is mesotrophic. Mesotrophic lakes are characterized by moderately clear water, but have a increasing chance of low dissolved oxygen in deep water during the summer.

Annual Meeting of the Beaver Dam Lake Management District

Saturday, July 11, 2015 at 9:30 AM

CUMBERLAND CITY HALL (NOTE CHANGE!)

(Doors open at 9:00 AM for Poster Displays)

Pursuant to Sec. 33.30 (1) of the Wisconsin Statutes and the by-laws of the Beaver Dam Lake Management District, the annual meeting and budget hearing will be held at the Cumberland City Hall at 9:30 AM on Saturday, July 11, 2015. Displays and Maps for weed control will be available for viewing at 9:00 AM.

Proposed Budget

<u>Revenues</u>		<u>Expenses</u>	
Tax Rev. (Est mil rate 0.94)	\$210,723	Mailings, Notices, Mtgs.	\$ 3,000
Stormwater Unused Funds	30,000	Stormwater/Outflow Grant Matches Total	261,237
•Grants Total	147,162	<i>LPL-1565-15 Library Lake SW</i>	30,150
<i>AEPP-435-14 AIS</i>	23,208	<i>LPL-1559-15 Moser Field</i>	30,359
<i>LPL-1565-15 Library Lake SW</i>	24,120	<i>LPT-484-15 NE Library Lake</i>	
<i>LPL-1559-15 Moser Field</i>	24,288	<i>Acquisition</i>	100,728
<i>LPT-484-15 NE Library Lake</i>		<i>Construction NE Treatment Facility</i>	100,000
<i>Acquisition</i>	75,546	Milfoil/CLP Control with Plant Surveys	190,000
Transfer from C.D.	84,952	Aquatic Plant Mgmt. Plan-ongoing	5,000
Total Revenues	\$472,837	Insurance	4,800
		Boat Landing Monitors	2,800
		Fireworks	1,000
		Water Safety	1,000
		Walleye Stocking	0
		Education/Conference	1,500
		Shoreline Restoration Site	2,500
		Total Expenses	\$472,837

Annual Meeting Agenda, July 11, 2015

- | | |
|--|--------------------------------------|
| 1. Welcome and Introductions | Tom Schroeder |
| 2. Approval of 2014 Annual Meeting Minutes | Nancy Bentz |
| 3. Treasurer's Report | Dr. Alan Carlson |
| 4. Audit Report | Mary Biros-Rogers |
| 5. Election of Commissioners | Tom Schroeder |
| 6. Aquatic Plant Treatment Program | Kevin Kretsch, Lake Restoration Inc. |
| 7. Stormwater Treatment Update | Jay Michels, EOR |
| 8. Review of District Activities | Tom Schroeder |
| 9. Budget for 2014-2015, Questions and Answers, Approval | Dr. Alan Carlson |
| 10. Other Items as Needed | |
| 11. Adjourn | |

BEAVER DAM LAKE MANAGEMENT DISTRICT

Are you interested in a term as Commissioner of the Beaver Dam Lake Management District?

Nomination Process for Commissioner:

Submit your name along with a short biography and 3 signatures of property owners/electors within the district to: Beaver Dam Lake Management District, PO Box 232, Cumberland, WI 54829. The nominees and biography will be will then be printed on the voting ballot at the July 11, 2015 Annual Meeting at 7:30pm at the new Cumberland City Hall, 950 1st Ave., Cumberland (715) 822-2752. This process does not preclude anyone from being nominated on the floor of the annual meeting.

Duties of the commissioner are:

1. Attend scheduled meetings at the Cumberland City Hall;
2. Attend the annual meeting around the Fourth of July;
3. Participate in at least one project each year;
4. Hold one of the following offices during your 3 year term, if offered: Chair, Secretary or Treasurer. This election is for 2 commissioners for a 3 year term.

NOMINATION FORM

Mail to:
Beaver Dam Lake Management District
P.O. Box 232
Cumberland, WI 54829

Nominee: _____ Address: _____

Lake Address _____

_____ E-mail: _____

Telephone No. _____

Signatures of Lake District Property Owners or Electors:

1. _____

2. _____

3. _____

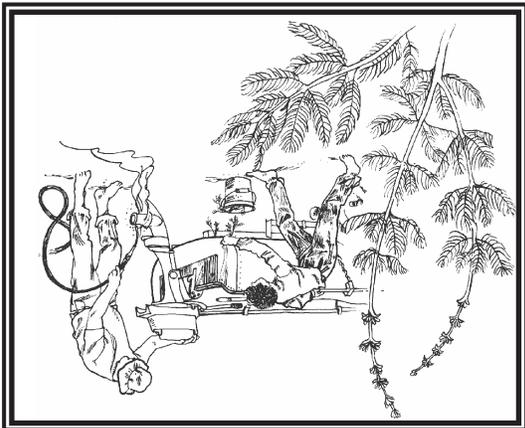
By submitting this nomination form, I will accept election as a commissioner of the Beaver Dam Lake Management District.

Signature _____

**Beaver Dam Lake
Management District
P.O. Box 232
Cumberland, WI 54829**

Or Current Resident

Help Prevent The Spread Of Aquatic Invasives.
Clean It Off! It's the Law!!!



Upcoming Events:
July 10th, 2015 9:30 AM
Annual Meeting and Budget Hearing of
Beaver Dam Lake Management District
See agenda inside.
NOTE LOCATION CHANGE
CUMBERLAND CITY HALL