

BLAKE LAKE BUGLE

Future District Meetings:

Spring Meeting 2015: May 16
Annual Meeting 2015: August 15

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Prevention & Clean
Boats, Clean Waters
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Current dam condition Sept. 1, 2014

UPDATE : Reconstruction of the Big Blake Lake Dam

What happened? Why did the dam break?

In late April three things happened to create “the perfect storm”. Days of heavy, soaking rains saturated the soil and strong winds during “ice-out” pushed ice chunks into the old logging dam. Rip-rapped boulders and the old logs constituted the dam and it gave way to the elements.

New dam in 2015

The Lake District Board has been very busy figuring out all that needs to be done to replace the dam as quickly as possible.

The Sherrard family estate has owned the dam. They are working closely with the District to transfer ownership of the dam (and needed adjoining property) to the District. Also, there was some concern that the DNR may require us to completely remove what is left of the existing dam at some point this year. The folks from the DNR said that they did not feel it would need to be removed — as long as it poses no danger. The current plan is to remove the old dam ‘after’ the new dam is in place. The District received approval to place rip-rap where the dam breached this past Spring to prevent additional erosion. The work was professionally done by Marv Pass (see photo above). This is not intended to repair the existing dam structure nor is expected to help retain any additional water in the lake. *Continued on next page.*

On July 18th, members of the board and APM Coordinator Jim Maxwell, met at the dam site along with members of the Sherrard family, the DNR, a Polk County surveyor and our contracted engineer — Larry Gotham. All parties agreed on the placement of the reconstructed dam. This would be downstream of the existing structure which will allow us to complete construction of the new dam without lowering the current lake levels any further. The final survey is almost complete.

We have a preliminary project plan pulled together. We are looking to have all paperwork, engineering work and approvals completed by the Spring of 2015. The current estimate is May 1st, 2015 and we are seeing if we can move that date up any further. Once everything has been approved, contractors identified and construction begins, our engineering team is estimating 30 days to complete the construction of the dam.

New Dam: “Rip-Rap Rock Chute Dam”

Overview:

- This type of dam is simple, economical and can be built without dewatering
- Virtually Maintenance Free
- Rip-Rap Rock Chute Dam can be built in about thirty days after all the red tape
- Red tape takes about ten-twelve months (survey map, deed transfer, draft and final agreement, plans to WDNR, bidding/negotiations, build)
- Preliminary Estimate \$100k - \$150k



Above: This is a typical rip-rap rock chute dam for a high head. The steel sheet pile can be seen under the bridge. This dam will look very natural and in keeping with

Dam Costs Assessment: calculate what you own

- How many parcels?
 Do any parcels have lake access / lakeshore?
 If so, how many feet of shoreline do you own?
 For example:
 1 parcel, shoreline, 100'
 1 parcel, backlot
 1 parcel, backlot w/access, 6' (easement is not considered access)

Riparian	Unique: Flat Fee v
non-Riparian	Non: Flat Fee
84% / 16% split	91% / 9% split
193 parcels x \$434 = \$83,762	“Unique” Owners own at least one property with lake access
75 parcels x \$217 = \$16,275	“Non” owners have no property with lake access
Riparian = \$434 ea	176 Unique Owners x \$518 = \$91,168
non-Riparian = \$217 ea	34 Non x \$260 = \$8,840
per Parcel	per Owner
based on \$100,000 dam	based on \$100,000 dam

Riparian means you have direct access to the lake or shoreline property

Otter Sighting — Keep Your Distance

This family of river otters with a baby was spotted on a dock and boat lift on the west side of the lake in the narrows on September 7. Be careful around otters. Keep your distance. They are fun to watch, but are capable of aggressive behavior. Males can be 25 lbs., females 19 lbs.



Volunteers Active!

Volunteers signed up for the Clean Waters Campaign. That is a 20% increase in volunteers. Through educational workshops, education through May through August. Volunteer activities are not accidentally scheduled, and other activities are available to all who



Join Us! If you would like to volunteer for next year please contact Peggy Lauritsen at plauritsen@pldg.com or 612-940-2006.



Some of the 52 CBCW volunteers, pictured left to right: Judy Hall, Katelin Holm/Water Quality Specialist, Polk County Land and Water Resources Department, Mike Rogge, Naomi Anderson, Tom Borden, Diane Borden, Sue

Call to Order at 9:05 by Sam Weber.

Welcome and Introductions

Board Members Present: Sam Weber, Tom Borden, Jim Filkins, Joan Maxwell, Polk Co Designee Cedric Solland.

Board Members Absent: Adam Elliott, Ron Ogren

Approval of meeting minutes (handout)

Motion to accept/approve minutes from 2013 Annual meeting by Stephanie Hinrichs; Second by Sue Ogren. Motion carries.

Approval of Treasurer's report (handout)

Motion to approve Treasurer's report by Char Dunst; Second by Stephanie Hinrichs. Motion carries

Introduction of Guests and Presentations

Jeremy Williamson, Polk Co LWRD re: Core Sediment Sampling

Jeremy Williamson presented an update on the findings for the core sampling collected in September 2013. Jeremy has been doing studies on our lake since 2006. He is currently doing top and bottom water chemistry, algae and zooplankton sampling and reconstructing the history of Blake Lake through the core sampling.

They took two core samples and have 195cm of mud, essentially. From this core, they are extracting a lot of geo-chemical data. Looking at what phosphorus is bound to, finding out how much erosion has occurred in the entire watershed, etc. They date the core, calibrate it, then pull out the diatoms, zooplankton fossils, fish files, pigments, and all sorts of things to measure and observe.

Blake Lake is really interesting because it has changed significantly over time. We have a low sedimentation rate. They took 2 meters of "mud" and they were able to go back to pre-settlement within 40cm... back to around the 1300s. Our geo-chemical analysis so far seems to indicate that our lake really began changing in the 1970s. In looking back to where we've been, to where our lake has been historically, we will be able to more accurately develop an aquatic plant management plan that is realistic and is based on evidence from where our lake has been in the past.

At the end of this core sampling data analysis, Blake Lake will develop a plan that will outline where we are going with respect to aquatic plant management. This will involve forming a committee to look at the data and present a plan to the District. This will also involve continued citizen lake monitoring participants. Clean Boats Clean Waters will also play a huge role in preventing the spread of aquatic invasive species and protecting our lake water and ecosystem.

Old Business

Slow-no-wake Zone (Tom Borden)

WDNR and we are for buoys to mark the on Big Blake Lake. V for the 2015 boating

Email List

The District would like to have a member in order to do a list sign-up sheet with wishes to add their email to District info, CBCW address to Peggy Lau

Standing Committee

Clean Boats Clean Waters already completed 76% of CBCW monitoring to complete our goal.

Through the Drain Cards and brochures, our Clean Boats Clean Waters our Lake District meeting serious issue on area towels and ice packs initiative to teach anglers from your boat, your this will help stop the

Three CBCW volunteers PCALR for Citizen Lake Rustad, Marge Filkins training.

Polk Co LWRD expert held a training here a species and go over thanks to attendees for Rogge, Naomi Anderson Marge Filkins, Jim Fil

APM Harvey Report Maxwell informed us Pondweed) and 1 loon season (so far). Due more hours of active This is great news for that we are making a Jim explained that as its seeds (turions), w because new seeds ar the CLP plant, then 1 farmland or in our lake



reconstruct the Dam, to assess the District for the costs of this project, and to borrow funds to get things rolling on this with a cap of \$175k. If Dam costs go above \$175k, the District will hold a special meeting to discuss the project costs and seek approval for additional funding. We do not anticipate this happening, and feel comfortable with the \$175k borrowing approval at this time.

VOTE: Funding for Dam Reconstruction: Approved
Motion approving the Dam Reconstruction project by Sue Ogren/Ford Elliott. Motion carried unanimously.

VOTE: Borrowing Funds for Dam Reconstruction:
Approved unanimously. Three methods of assessment were presented to the District:

- 1) Riparian v Non-Riparian
 - 2) Unique Flat Fee v non- Unique Flat Fee
 - 3) Flat Fee for all plus Riparian cost per foot of shoreline
- *Riparian means you have dedeed access to the lake or you own lakeshore property. The Board will determine the method of assessment; thank you for your input.

Announcements - Save the Dates

- 1) **Spring Meeting:** May 16, 2015 (3rd Saturday in May)
- 2) **2015 Annual Meeting:** August 15 (3rd Saturday in August)
- 3) **2015 Pontoon Parade:** July 4, 4:00 p.m.

Adjourn: Sue Ogren/Gail Rustad, unanimous. Adjourned 11:10.
78 District Members attendees; 6 non-District attendees.
Minutes Submitted by: Sam Weber, Co-Chair

Common Acronyms:

APM:	Aquatic Plant Management
AIS:	Aquatic Invasive Species
BBLP&RD:	Big Blake Lake Protection & Rehabilitation District
CBCW:	Clean Boats Clean Waters
CLMN:	Citizen's Lake Monitoring Network
EPP:	Education, Prevention, & Planning
LWRD:	Polk Co. Land & Water Resources Department
PCALR:	Polk Co. Association of Lakes and Rivers
SWIMS:	Surface Water Integrated Monitoring System
WAL:	Wisconsin Area Lakes (now: WI Lakes Partnership)
WDNR:	Wisconsin Department of Natural Resources



boat landings, and a comprehensive study is a full point for lake plus every- samples, and related etc. at those same diene (SLOH) where back to Polk Co

District members at sider becoming part omprehensive APM

See C. Solland ity to greet Cedric ic will serve as a ty. Welcome Cedric. ites.

15; Stevens Point) ns) e the annual budget

s currently held by held by private ballot uritsen as nominees. to these positions

erPoint explaining a. Through a series of &R District, WDNR, id sequence of events; that went out on or

e because it is e free. The Board, Drop Box Dams, nstruction, which Rap Rock Chute o complete with l of project, drafts, from Dam builders. ways to complete mpleted by next

the engineer is

Call to Order: Tom Borden, 9:00 AM

Motion to approve minutes: Jim Thorn/Sue Ogren. Unanimous.
Treasurer's Report: Jim Filkins presented the Treasurer's report and spoke about the need to approve a 50K Reserve account for Harvey as a Capital Expense Act. Something that never was officially approved in the past. Sue Ogren motioned to approve capital exp acct and Peggy Lauritsen seconded, motion carried. Ford/Lauritsen motion to approve Treasurer's report carries.

Presentation:

Jeremy Williamson: Core Sediment Sampling:

Jeremy and Katelin from Polk Co IWRD did point intercept surveys on the lake this summer and spoke about gathering extensive data and entering into the mapping program. Curly leaf way behind this year. Native plants are growing where curly leaf used to be abundant, and that's a good thing. Taking chemistry samples at inlet and outlet and using a flow meter to gain critical information. Also is interested in doing sediment core samples - working with science museum - doing Geo chemical analysis also and looking at historical land use, going back 150 years or so. Lessening curly leaf makes us eligible for more grants.

Old Business:

Slow - No-wake:

DNR needed comments and feedback from residents on the lake who have been impacted by the land erosion and lack of a slow wake zone.

Jack Belisle who doesn't live in the narrows commented on the boaters. Gerry Smith remarked about possibly having an on-line survey for our residents to give feedback regarding the need for a slow-no-wake zone. He thought it might be a danger to boaters to hit the buoy with their boat. He was told that it is the boaters responsibility if he does. This was a quote from Mark Little @ DNR. Gale Rustad lives in the narrows and has seen rip-rap totally washed away and seen people spin their watercraft in narrows. Peggy Lauritsen has seen a lot of traffic right by their dock. She commented that in her line of work they do surveys on-line often and if you get a 30% response on the survey is good. Ford Elliott says that 200 feet North of narrows gets hammered with wake. Says buoys are in the water at Balsam. On our lake we would be placing two buoys at each end. They are made of covered foam. Adam Elliott had a question regarding clarity on what kind of buoy. Sue Ogren says boaters are still coming too close to property. Suggested reminding boaters. Jerry Belisle has seen boaters going between his float and his shoreline. Vincent Tueber asked about the number of feet from shore and other boaters. Gail Rustad says people are asking "Where does the no wake zone start and end?" Says they need to see the signs.

Trash can vs. Signage at landings:

Tom Borden reported that trash cans rent for \$55 a month and two would be required if we go that route. It was decided - no trash barrels. Signage is better to encourage people to take home their trash and dispose of it properly.

Standing Comm

CBCW: Peggy Lauritsen signed up this year. Literature at Bait Shop at landings 400 hours are not hiring kids to hours but we might Landing Blitz was the Amery Free Press has a 5000 circulation

APM: Jim Maxwell s out 6 loads of coonta On 6/30/2013 Jim M from the DNR and G cutting at the Belisle property. Areas that Large mouth bass into Aaron Cole encourage Dorner would like A The \$3010 GPS syste Harvey driver to pun ground he just went small motors; runs q

EPP Grant (AIS): Sa level of study we may Prevention, and Plan monitoring and CBC Pontoon Classroom.

Core Sampling Grant
The total for District' over two years. Mot Elliott seconded. M

New Business:

Annual budget: Jim up significantly. The Budget remains at \$2 motion to approve ca

WAL Convention: S strongly recommend Borden and Peggy L

4th of July Parade: F

Spring Meeting 201

Annual meeting: Au Adam Elliott volunte motion carried. **Adjourn:** Ford Elli



Paleolimnology of Blake Lake Using Sediment

Paleolimnology is the study of ancient lakes from their sediments and fossils. Jeremy Williamson, Water Quality Specialist, Polk Co. LWRD collected core sediment samples in September, 2013. Since 2006, he has been studying water chemistry, algae and zooplankton to reconstruct the history of the lake. This core data analysis will be the foundation of an aquatic plant management plan for the future.

Read more on page 5. See August 16 District Meeting minutes.

Contacts

Waterfront Property, Polk Co., WI

Alterations to shoreline? Cutting Trees? Building, remodeling, boathouses, driveways, garages, fire numbers?

Polk County Zoning:
(715) 485-9111
<http://www.co.polk.wi.us/>

Burning permits and restrictions? WDNR or town, village or city:

1-888-947-2876
<http://dnr.wi.gov/topic/forestfire/restrictions.html>

More resources at:

Polk County Association of Lakes and Rivers (PCALR)
<http://pcalr.org/our-lakes-and-rivers/>

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SAVE THESE DATES



1988 S. Baker Road
Balsam Lake, WI 54810

