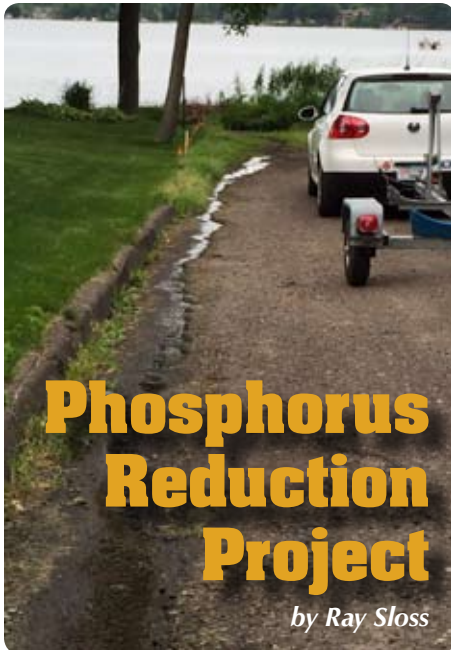


Dock Side

Volume XXII Issue #1

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Spring 2016



Ed McGlynn and Ray Sloss have been involved in an ongoing study of the causes of the early algae bloom due to the high phosphorus content of the East Balsam. Reviewing past studies by Barr, the recommendations were alum treatments. The conventional wisdom was that the phosphorus was being released from the lake bottom and cycled into the water column. Once in the water column the conditions were right for algae growth.

East Balsam basin takes up to three years to completely change out its water. The board contracted with AYRES Associates, and engineering firm, to investigate engineered solutions for increasing the flow of water through East Balsam. Every engineered solution had a critical flaw. An engineered approach had to be abandoned.

We then contracted with Limnologist Bill James from the University of Wisconsin to investigate the following questions:

How does phosphorus get released from the lakebed?

It is complex. The amount of Iron plays a role. Iron can bind with phosphorus and keep it out of the water column. Unfortunately Balsam Lake has low iron to phosphorus ratio in the bottom waters.

The most significant contributor to phosphorus in the water column appears to be the amount of dissolved oxygen (O₂) in the water column. O₂ is dependent on water temperature. Hot water cannot support as much O₂ as cold water, and stratification, a temperature thermal cline occurs and creates a barrier that does not allow the oxygenated water from above from mixing with the de-oxygenated water below. Water without dissolved O₂ (called anaerobic) allows phosphorus to be released from the lakebed. Once phosphorus is in the water column algae, an opportunistic organism, takes advantage and the result is an algae bloom.

How would an alum treatment work to break this cycle?

The goal of an alum treatment is to create a crystalline structure overtime that diffuses into the lakebed to bind with mobile phosphorus. The intent is to have the alum migrate into the top 8-cm of soil, thereby creating a lakebed-water column phosphorus barrier.

How much would an alum treatment of east Balsam cost and how long would it last?

Alum is effective and can bind phosphorus for decades. But the binding efficiency declines over time suggesting that the treatment requires maintenance. Cost of the initial treatment, \$959,050 to \$1,071,970. In year #5 a second treatment would be required at a cost of \$479,525 to \$535,985.

The treatment area would follow the 10 foot contour line and would look like Figure 1 below, about 50 – 60% of the East Balsam Basin.



Figure 1. Suggested Al treatment area in the East Balsam Lake Basin. Blue stippled region encompasses to 10-ft contour.

The results would initially be dramatic. However without addressing the sources of phosphorus, rational thought would say that each year we would be adding new phosphorus on top of the cap. This turns our attention from the lake to the practices on the

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EVALUATE RUNOFF AT YOUR PROPERTY

land surrounding the lake.

Jim Miller has been running projects around Deer Lake, (our neighbor to the west) for 20 years and Deer Lake's results are worth noting. The Deer lake Conservancy focused on watershed management with a special emphasis on structures and land use modifications to reduce the inflow of nutrients and sediment into lakes and streams. Deer Lake reports that it has reduced its watershed phosphorous loading by 55% resulting in Secchi disc improvements of 300-400%.

There are opportunities in this area for Balsam Lake in both Pine Island Bay

and in the East Balsam Basin. We plan on meeting with Jim to view some of his projects for applicability to Balsam Lake.

Jeremy Williams, Polk County Land and Water Department, has pulled a core sample from Big Blake Lake and is analyzing it centimeter by centimeter. Using dating techniques (in 1963 the atomic test ban treaty limited atmospheric testing), and a method I call brute force, Jeremy can de-code what occurred in Blake Lake and when. He can also easily tell when the lake experienced a release of phosphorus into the water column. He doesn't

have all his results yet. It appears there was a significant change around the time the building boom occurred. I believe we can extrapolate to Balsam Lake.

Tom Kelly is researching a program called "HEALTHY LAKES 101." This program has goals that are in alignment with what we are interested in accomplishing in East Balsam and it has the support of grant money. But there is some up front work that needs to be accomplished by the Lake District. Let's discuss it and see if we would like to join this state wide program.



Last year Adopt-A-Boat Landing team was Terry and Pam Blegen and Tom and Bonnie Ebert. They adopted the Little Balsam boat landing. BLPRD received feedback on the excellent condition of that boat landing. So I called Terry and asked him about their experience. Terry said that after giving the boat landing a thorough cleaning the first time in the spring, it pretty much stayed clean the rest of the year. It was Terry's opinion that most people tend to leave things the way they find them.

The belief is that the Adopt-A-Boat Landing program enhances and protects our lake by reducing litter at the boat landings. It sends a visual message to visitors of our lake that we take pride in our lake and reasonably expect the same. The Balsam Lake Protection and Rehabilitation District will continue this program in 2016.

Any individual or organized group can sponsor a boat landing by agreeing to provide litter pickup at least once a month during the summer season between Memorial Day and Labor Day. We will provide you or your team specially designed shirts for you to wear and trash bags. We will provide for trash pick-up at the boat landing.

It's easy to get started. Select a boat landing other than East Balsam and contact either Commissioner Bill Mork (763-699-7792) or Commissioner Ray Sloss (612-965-6455). You or your group will be asked to provide a non-binding letter declaring your intentions and you're ready to go.



WHAT IS IT? THEN BAG IT & TAG IT

I think I may have evasive aquatic plants at my dock. What do I do?

Good question. There is a procedure to follow and a team of biologists close by to help you answer your question.

1. Safety First! You are going to be reaching, bending and pulling. Will you need a personal floatation device? Will you need a second person, an observer, should someone need to go for help?

2. Bag It! As best you can slip a plastic bag over the plant. Close the bag around the plants stem. The purpose of this step is to protect the lake from the plant, the plant's seeds or broken bits of the plant.

3. Remove it! Try to remove all of the plant including its roots, not always possible. Do the best you can.

4. Tie the Bag! Remove the water from the bag and bind the bag closed.

5. (D3) Date, Describe and Deliver! Write down the date your sample was removed. Describe where it was found. Add your contact information and deliver it to Polk County Land and Water offices located on the first floor of the Polk County offices.

Good job all, Ray.



Carl Holmgren Obituary

We were all saddened to hear of the passing of our dear friend Carl Holmgren. He was our Treasurer, Secretary, CBCW, Aquatic Herbicide Spray lead and responsible for hundreds of other tasks that were necessary to keep the BLPRD running smoothly. Carl was appointed to the board by the county. And every time the county threaten to replace him, we would lobby to prevent it. Every time Carl would threaten to quit, we would lobby to prevent it. He will be missed.

Carl E. Holmgren, Jr. 71 of Balsam Lake passed away unexpectedly March 5, 2016 during a snowshoe race in Ogema, Wisconsin. He was born October 21, 1944 in Norfolk, Virginia the son of Carl and Genevieve (Birge) Holmgren.

Carl graduated from Edison High School in 1962. He served in the United States Navy from January 3, 1963 to December 9, 1966 in Vietnam on the U.S.S. Repose Hospital Ship. He worked for the City of Minneapolis for 30 years and graduated from the University of Minnesota in 1976. He was a member of the V.F.W. Milltown Post #6856, American Legion Balsam Lake, The 40&8 Club, served 2 terms for the Polk County Board Supervisor, Balsam Lake Protection rehabilitation district board, Northeast Minneapolis Lions Club and the YMCA (Red Triangle Recipient). Carl was in charge of Clean Boats-Clean Waters for Balsam Lake, ran 25 marathons, bicycled the Lewis & Clark Trail in 2003 (4016 miles) and Multiple Sclerosis 150 participant, he also served on Our Lady of the Lakes finance Committee. Carl and Sheryl have been on Balsam Lake since 1992 and retired to their home on the mill pond September 11, 2001.

Carl is survived by his wife; Sheryl, children; Cari Ann (Eric) Muggenburg, Christopher (Sarah Duncan) Holmgren, Cathy Jo Prasnicki, Jonathan Holmgren, John (Sarah) Verplank, Thomas (Heather) Verplank, grandchildren; Paige Prasnicki, Isabella Muggenburg, Warren & Nathan Verplank, Evelyn & Lillian Verplank. Also survived by brothers; Frank (Carol) Holmgren, David (Barbara) Holmgren, Richard (Lynn) Holmgren, brother-in-law; Steve Ditty and many nieces, nephews and friends. He is preceded in death by his first wife, Trudy, parents and one sister, Linda Ditty.



Moving Forward on the Harvester

by Ray Sloss

As lead of the Aquatic Plant Management (APM) program Commissioner Rod Preble took on the process of selecting and purchasing an aquatic weed harvester and related support equipment with the help of fellow Commissioner Tom Kelly.

Using the competitive bidding process and a paired comparison matrix process an ILH7-450 model Harvester manufactured by Inland Harvester Company was chosen. That bid for the ILH7-450 Harvester, off loading conveyor and trailer was \$167,645. We will add one other necessary piece of equipment, a recording GPS which will bring the total cost of the harvester and equipment to \$170,645.

Next we engaged Cheryl Clemons of Harmony Environmental. Cheryl wrote a grant request and was able to win us a position on the agenda with the Wisconsin Water Ways Commission. The Water Ways Commission has a finite amount of funds collected from boat gas tax and fees that are used for purposes of projects that improve Wisconsin lakes. There is competition for those funds. It is one of the few grant processes that we have encountered that recommends that a spokes person attends the hearing and be should be well prepared to support their request.

Ray Sloss and Rod Preble prepared a ten minute presentation which the Water Ways Commissioners enjoyed. The result was a grant for \$59,725.75 that was awarded to BLPRD. These funds will be applied directly to the purchase of the harvester leaving

BLPRD's share at \$110,919.25.

The source of the Wisconsin Waterways grant for our harvester is the Wisconsin gas tax. This includes the gas taxes collected on boating gas.

With the grant in hand the Wisconsin Department of Natural Resources allows the BLPRD to release the initial funds necessary to begin the manufacturing of our harvester.

Special Meeting on March 19, 2016

The resolution passed during the July 18th, 2015 annual meeting requested authorization to borrow \$319,120 from the Board of Commissioners of Public Lands for a period of 10 years for the purpose of purchasing an aquatic weed harvester, supporting equipment and a building to store this equipment. The resolution stated that the principle and interest would be paid through Lake District property tax and \$45,000 was levied in the 2016 budget for this purpose. (Details can be found in the Summer 2015 DockSide. Don't have yours? A copy can be found at www.blprd.com/Dockside-issues)

The requirement to borrow from the Board of Commissioners of Public Lands (BCPL) is:

The electors of the district must properly give formal consent to the Commissioners to borrow money for a particular purpose and levy an irrevocable assessment.

A resolution was written to borrow an amount that was reduced from \$319,120 to \$167,645 and a statement was included to indicate that the loan would be paid with an irrevocable Lake District property tax.

The Special meeting was held in the Polk Business Center, lower level conference room on March 19th, 2016 at 9:15 a.m. The Special Meeting was needed to adopt the new resolution which effectively sets aside the resolution of July 18th, 2015. The discussions were around two main topics:

SPECIAL MEETING TIMING:

Could the question be tabled until the July 16th, 2016 annual meeting? Yeas: 20; Nays: 38. The motion failed.

UTILITY:

How many acres are being harvested? 80 acres, much of which is an attempt to curtail the continued growth of Curly Leaf Pondweed.

RISKS:

First hand testimony was given about Lake McCarrons' experience with

harvesting Eurasian Milfoil; the process resulted in spreading the invasive and harvesting was suspended.

COSTS:

What are the total costs associated with this purchase?

- Harvester, Shore Conveyor, Cart Trailer: \$167,645
- Tracking GPS: \$3,000 (est.)
- Used Dump Truck: \$10,000 (est.)
- Metal Pole Building: \$29,120 (est.)
- Additional Insurance costs: unknown
- Operating costs including maintenance: \$6,000 (est.)

How is the \$45,000 that was collected in the 2016 property tax levy going to be applied? It will be applied directly to the principal and interest as will the grant for \$59,725.75.

A vote was taken on the resolution:
Yes: 48; No: 12

The resolution was adopted.

Details of the Loan

The Loan will be for the amount of \$167,645 at 3.0% interest calculated annually. Payments are due March 15th. Annual principle and interest payments on this loan should be \$19,653.11 (est.) to the Balsam Lake District. We will be paying down the principle of this loan with our grant and our tax levy in our first payment. As a result we expect that the duration of this loan will be shortened by two to four years.

To estimate how much the irrevocable tax will be on your Balsam Lake District property you must know the Total Assessed Value. The Total Assessed Value of your Balsam Lake District property can be found on your Real Estate Property Tax Bill for 2015. The estimated irrevocable tax will be \$7.06 for every \$100,000 dollars of assessed value.

The term "irrevocable tax" is only in effect when the loan contract with BCPL is in effect. Once the harvester and equipment loan has been satisfied, the contract is satisfied and the Balsam Lake District is released from the terms of the loan.

Aquatic Plant Management Notice

The Balsam Lake Management District is applying for a permit from the Wisconsin Department of Natural Resources to treat 65 acres on East Balsam with an aquatic herbicide to control the invasive plant curly leaf pondweed. This proposed treatment would occur between April 15, 2016 and June 15, 2016.

The Balsam Lake District has been using the herbicide Endothall to treat curly leaf pondweed in various beds and navigation channels. Herbicides are used early in the season at a low dose to avoid harm to native plant species. The APM plan recommended continuing this treatment in order to minimize navigation problems, prevent the spread of curly leaf pondweed, and protect native plant populations. Recent studies suggest that CLP treatment may reduce mid-summer algae blooms.

Clean Lakes Inc. will conduct a public informational meeting on the proposed treatment if five or more individuals, organizations, special units of government or local units of government request one. The meeting will give the citizens a chance to learn more about the proposed treatment from the permit application. Clean Lakes Inc. is not required to, but may change the proposed treatment based on the information provided by the citizens attending the meeting.

Any request for public meeting must be made within five days after this notice is published in the Polk Ledger. The request must specify the topics to be discussed at the meeting, including problems and alternatives, and must be sent to Clean Lakes Inc. Oakwood Hills, IL and the Department of Natural Resources, Water Permit Central Intake P.O. Box 7185 Madison Wisconsin 54707

This notice is required by Chapter NR 107 Wisconsin Administration Code.

Questions: Ray Sloss at 612-965-6455.

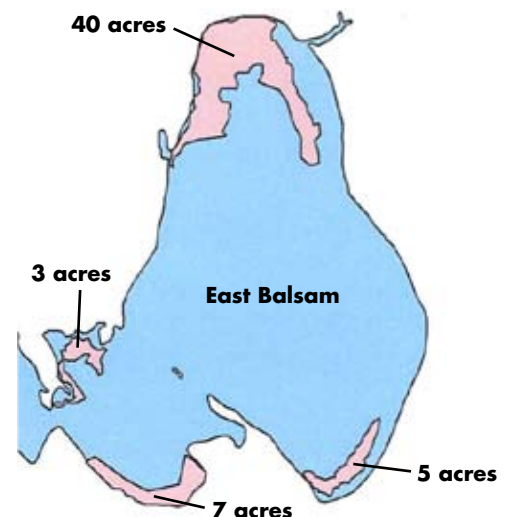


Figure 1. East Balsam Basin, areas to be treated are approximated.



A Letter from the Chairman

2015 was another successful year for our herbicide treatment program in East Balsam. The turion count per square meter in the CLP beds is trending down; the post treatment visual surveys reveal effective results. As a matter of fact we were the only lake in the area that experienced positive results with the treatment of CLP. With the purchase of the aquatic harvester we can begin to turn our attention toward CLP beds that can't be treated with herbicide. These are CLP beds that are located in high current areas, Dixie Bay, Paradise Island.

We were alerted with the approach of zebra mussels in our area. They are now in Forest Lake. Recognizing the importance of the Clean Boats Clean Waters program, the electorate added funds to the CBCW program. The CBCW teams are our best and most cost effective deterrent to keeping invasive species out of our lake. Then, on a sad note, we lost our CBCW champion, Carl Holmgren. He was often seen biking around the lake daily checking on each landing crew. I am learning how dedicated his people were to the health of Balsam Lake as I have received several phone calls from landing leaders saying "we've got this. Just tell us when."

The University of Wisconsin's Bill James, reported his team's work on the phosphorus study in East Balsam. He studied the cycling process as phosphorus is caused to be released from the lake bottom into the water column, becomes an algae bloom, and is then returned to the soil. He shared the methodology required to interrupt this cycle.

Finally, in a Special Meeting in March,

we set aside the old harvester resolution for \$319,120 and replaced it with a new harvester resolution for \$167,645. March was not an ideal time for a Special Meeting. But it was necessary to keep the delivery of the harvester on track for the spring season.

Raskin Bay Navigation

The Wisconsin DNR team stated that, in their opinion, Raskin Bay's navigation problem is caused by aquatic weeds. With delivery of the aquatic weed harvester we should be able to correct this condition. It may not satisfy everyone's hope for Raskin Bay, but it does make the bay more useful for the residents. I am giving this project thumbs up.

East Balsam Water Quality

Limnologist Bill James presented the results of his studies on East Balsam high phosphorus to the Commissioners in February. He stated that East Balsam is eutrophic with potentially harmful cyanobacterial blooms, and that internal phosphorus loading was driving these blooms. Bill explained in great detail how phosphorus was cycling out of the lake bed to become an algae bloom. He stated that to effectively break this cycle would require two alum treatments. He presented case studies that supported the effectiveness of multiple alum treatments and said that we can expect 30 to 50 years effectiveness. Bill also provided an estimated cost. The initial treatment would be between \$959,050 and \$1,071,970, depending on the product selected; and a seconded treatment within 3 to 5 years with an estimated cost between \$479,525 and \$535,985.

Commissioner Ed McGlynn told the commissioners that a graded approach should be employed on this project. Ed said that we should not consider the alum option until we know with reasonable certainty, the source or sources of the phosphorus. Ed outlined his graded approach beginning with information sharing and actions we can all take to reduce the P loading of our lake. I haven't seen this approach in other alum treatment projects. Ed wants East Balsam to lead the way.

On this project the numbers are large. Lakes in our area are committing funds

of this magnitude and proceeding with alum treatments. We are observing their challenges and learning from their experiences. I want to get the numbers out there so that we can all see them, consider them, ask lots of question and make an informed decision. I am giving this project thumbs up.

CBCW

Clean Boats and Clean Water (CBCW) opened its hiring practice from only hiring high school students to hiring adults as well. It established a Landing Lead position. The Landing Leader forms a team for managing his or her boat landing. Although the environment of invasive species is becoming more challenging around Balsam Lake, we have not experienced any new invasive species challenges. This process is back on tract from last year. I am giving it thumbs up.

CLP Treatment

We treated 65.5 acres of curly leaf pondweed in May of 2015 and the results were very good. Let me use the words of our Lake Biologist, Matt Berg:

"I wanted to check in and let you know I got all the CLP beds mapped last weekend (June 13 – 14). I was pleasantly surprised to find very little acreage throughout Balsam – this is opposed to the majority of lakes I work with that saw significant increases with the light snow/early spring that seems to have favored CLP growth in most lakes."

"East Balsam continues to recover with significant numbers of native plants not only surviving the treatment, but thriving – especially in the shallows. I consider this year's treatment out there the best you've had yet."

I am giving this project thumbs up.

Harvester and Equipment

This project had a rushed beginning. It was introduced to the board as a resolution in June, just thirty days before the annual meeting. After passing the original resolution Commissioner Rod Preble did an exceptional job of selecting vendors for the bidding process and introduced the board to the selection process he had selected to use. His goal was to have a harvester on the lake this spring.

Fast tracked projects often experience glitches and this project was no different. The BCPL rejected our original loan request. We had all the right wording. The words just weren't in the right places. As a result we had to schedule a Special Meeting at a less than ideal time of the year. We are waiting to hear the results of our second loan request.

We also learned during the special meeting and from feedback that people still have questions about how the aquatic weed harvester is going to be managed and the projected costs. For this reason and the problems with the loan paperwork, I am giving thumbs down.

Conservancy Property

Last year I reported that we were looking at property on the Northeast end of East Balsam. The board considered it and decided not to pursue the property as conservancy property. This year a lake property owner who also owns property abutting Stumps Bay, has asked us if we would be interested in placing the Stumps Bay property in conservancy. Her husband used to enjoy that property during the winter months and wanted it to remain in its current wild and wooded state. It supports deer, turkey, cranes, ducks, geese and eagles. Stumps Bay tends to score high with the Wisconsin DNR. It is a long process that helps keep the value of our lake high.

Budget Discussion and Annual Meeting

The Commissioners begin an important evolution as we assemble a budget for 2016 and prepare for the annual meeting. Our meetings are open and we do accept public comment. The budget meetings are held in the Polk Business Center lower conference room. Budget discussion will occur April 16th and May 21st at 8:30 a.m. The annual meeting will be held at Unity School auditorium on July 16th convening at 8:30 a.m.



It is Spring! Time to Evaluate Runoff at Your Property

by Ray Sloss

Take water quality very seriously. We should all take water quality very-very seriously. Need testimonial? Discuss water quality with a friend who has or had a lake home on a lake with poor water quality. I have had two such discussions. Both sold their lake homes on poor, not bad, but poor water quality lakes. Mike Werner and his wife now have a lake home on Beaver Dam, they were on Ten Mile Lake on the Lake Chetek chain; Mark Simacek and his wife are now on Bone, they were on Big Round Lake.

An improvement of 3 feet in depth of water clarity would result in \$11 to \$200 more per foot of shoreline property value... This was part of a 5-year Maine study of 900 lakefront properties on 34 lakes. Likewise, declining water clarity accounted for a 10% to 20% drop in selling price.

(Schueler, T.R. and H.K. Holland, editors. 2000, The Practice of Watershed Protection. The Center for Watershed Protection, Ellicott city, MD.)

Recent lakes that have undertaken alum treatments are Black Hawk, MN, East Alaska, WI and Half Moon, WI. These are expensive events design to restore water quality, specifically reduce phosphorus loading.

There are a few inputs into water quality that are under our control. Run-off from farming operations is being managed by a cooperative effort between Balsam Lake drainage basin farmers and Polk County Land and Water specialists. This multi year project is partially funded by Balsam Lake Protection and Rehabilitation District. These are individual studies

performed on site and the results turn out to be a win-win for both the lake and the farmers.

The other area we have control of is lakeshore run-off. Before you perform the evaluation, let's discuss the "win-win" or "what's in it for me?" question.

We choose Balsam Lake because of its natural beauty, the wild life it supports, the trees at the shoreline. We all adhere strictly to "no phosphorus fertilizer rule" because we know the effects phosphorus can have on our lake. (The formula is one pound of phosphorus can result in 300 to 500 pounds of algae.) The single area that always requires our attention, our vigilance is run off.

Take a minute to do the evaluation on the next page, and thanks for keeping our lake healthy.



Cheryl Clemens is Balsam Lake's design consultant for reducing property runoff and therefore, nutrient runoff. The Lake District has funds to cover her site visits. The funds are limited. Contact Cheryl Clemens, Harmony Environmental, in Amery to discuss opportunities to correct property runoff, harmonyenv@amerytel.net or 715-268-9992.

IN EACH SECTION CIRCLE THE PHRASE THAT BEST DESCRIBES YOUR PROPERTY.

Are all areas of your lot well covered with vegetation?

1. My lot is completely vegetated with tall growth between my house and the lake.
2. There are no areas of bare soil on my lot. My lot has some tall vegetation near the water.
3. There are few areas of bare soil and/or my property is covered with a thick lawn.
4. My lot has extensive areas of bare soil and/or is covered with a thin lawn.
5. Gullies have formed from water running across my lot.

Are there any deposits of sand or other materials, or can you see where water flows on your lot?

1. No deposits or other indication of water flow are present.
2. I can see where water flowed across my lot.
3. There is a clear channel where water runs through tall grasses, leaves, or pine needles.
4. Water clearly brings leaves, pine needles, and sand to my lot.
5. There are large deposits of sand and debris in flatter areas of my lot. I could easily fill a 5 gallon bucket.

How steep is the slope to the lake?

1. There is a ridge that prevents all water from flowing to the lake.
2. The lot is completely flat. Water pools and soaks into the ground.
3. The lot has a gradual slope. Water may make it to the lake in a big storm.
4. My lot has a moderate slope to the lake.
5. I have a steep slope to the lake. A ball placed at the top of the hill will roll to the lake.

Is there a natural or wild vegetation near the lakeshore?

1. Yes! At least 35'.
2. Yes. At least 35' except for the 35' viewing corridor.
3. Yes. It is less than 35' but greater than 10' or, I do use rain gardens, berms, infiltration trenches, path diversions and/or rain barrels to keep my runoff from reaching the lake.
4. Yes. It is a garden, or a berm, or a path diversion, or a rain barrel and it works pretty well.
5. Yes. It is a nice garden with mulch, plants and/or grass.

TOTAL THE NUMERICAL VALUE FROM EACH SECTION.

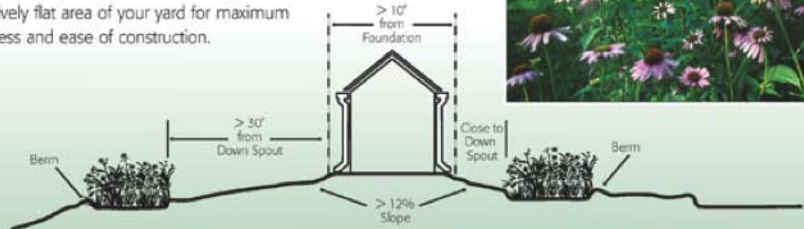
YOU'RE GOING TO HAVE A SCORE BETWEEN 4 AND 20.

Scores between 4 and 8 are very good. Scores between 9 and 12 are good, but there may be an opportunity for improvement. Consider a runoff mitigation system. If your score is greater than 12 you have opportunity to reduce rain water runoff. Reducing runoff improves the quality of your lake. Installing mitigating features will change the impact your property is having on your lake.

Consider the possibilities—

Rain Gardens

Rain gardens are designed to capture runoff from rain events and absorb water over several hours to a few days. Absorbed water is filtered and purified by the soil. When rain gardens are planted with a variety of colorful native flowers and grasses, they attract hummingbirds and butterflies to your yard. Place a rain garden on a relatively flat area of your yard for maximum effectiveness and ease of construction.



Rain Barrels

Rain barrels capture water from a rain gutter downspout for watering gardens and potted plants. Many styles are available for purchase or you can build your own. Be sure that your rain barrel is covered to prevent mosquitoes from laying eggs and reproducing.



Infiltration Areas

Infiltration areas may be flat areas of woods or tall grasses or constructed pits or trenches. Where the slope is flat and the soil is sandy, it may be possible to simply divert water to an area where it can soak in. Other times infiltration areas are constructed by digging a pit or trench, lining it with porous landscape fabric, and filling the void with 1-2 inch clean rock. The size and depth depends upon the size of the area draining to the infiltration area and the type of soil beneath it. Do not encourage infiltration over a septic drain field, near a drinking water well, or within 10 feet of the foundation of your house.



Native Plantings

Planting native trees, shrubs, flowers, and grasses has many benefits. They provide a home for birds, butterflies, and other creatures that live near the water. They keep water clean by filtering runoff and holding soil in place. Another great benefit is the natural, north woods beauty that results!

Septic System Improvement

Older septic systems – especially those that are close to the lake level – can lead to pollutants flowing to the lake. Upgrading old systems means that waste water is treated appropriately so it can't damage lake water quality.

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Balsam Lake Protection & Rehabilitation District
P.O. Box 202
Balsam Lake, WI 54810

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MEETING SCHEDULE

April 16, 2016
May 21, 2016
June 18, 2016
July 16, 2016 (Annual Mtg.)
August 20, 2016
September 17, 2016
October 15, 2016
November 19, 2016
December 17, 2016

Polk County Business Center
Lower Level Conference Room
Third Saturday of the Month
Meetings begin at 8:30 a.m.

Commissioners

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Lake: 612-965-6455
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Lake: 715-825-2302
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E-mail: howardseim@aol.com
Term Expires: July 2016

ROD PREBLE

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TOM KELLY

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Term Expires: April 2016
Appointed by the Village of Balsam Lake