

DOCK SIDE

Balsam Lake Dam

History The first dam on Balsam Lake was constructed around 1852. A lumber mill was constructed at the dam in 1856. This dam was located where County Road I now passes between Balsam Lake and the Mill Pond, and is referred to as the Upper Dam. The dam was reconstructed around 1941.

The Lower Dam is located at the outlet of the Millpond on 165th Ave. and is the only dam presently in use. It was built in the 1860s. Around 1915, Aaron Dahlberg and his sons purchased and rebuilt the dam and added a hydroelectric power plant.

The Dahlberg family created what is now known as the Northwestern Wisconsin Electric Company. In the late 1980s the turbine was damaged and the dam was no longer used for the generation of power.

During the mid-1990s, Northwestern Wisconsin Electric started discussions to abandon the dam. After years of negotiations with the Village of Balsam Lake and the DNR, the dam was deeded to the Village in 2000. As part of the negotiations, Northwestern Wisconsin Electric agreed to provide funds for some future maintenance and operations. The Balsam Lake Protection and Rehabilitation District also provides funds to the Village. The Village of Balsam Lake now operates and maintains the dam.

Construction The current dam consists of an earthen embankment that is approximately 37 feet high, and 300 feet long. With a five foot wide by six feet high reinforced concrete inlet to a surge tank.

Operations and Maintenance Visual inspections are performed daily by employees of the Village. Water levels and precipitation levels are documented. The water levels are maintained between 92.6 and 94.30 as established by the DNR and based on a benchmark at the dam. The water flow of the dam is adjusted by installing or removing wooden boards on the inlet of the dam. These adjustments are noted on the daily operating log.

Inspections The owner of the dam is responsible for inspecting the dam to ensure its safe operation. The Wisconsin DNR requires inspections of the dam on a regular basis. These inspections are performed by Village Employees, DNR staff, and Engineering Consultants.

The dam is critical to ensuring the safety of those downstream while allowing us to enjoy all the recreational opportunities that the lake provides. ●

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Balsam dam on the Mill Pond.

CHAIRMAN'S LETTER

REFLECTING ON MEMORIAL WEEKEND 2020 – I witnessed what appeared to be an effect of the COVID virus—less activity at boat ramps and on the lake. Perhaps it was the cool water temperatures and the finicky fishing? We are confident activity will increase as the weather warms and state directives ease, and are thankful that the Balsam Lake/Centuria Police boat patrol, the DNR and Polk County Sheriff monitor activities on the lake.

ANNUAL MEETING – We are fortunate that Unity Schools will once again host our annual meeting at the Performing Arts Center on Saturday July 18 at 8:30 a.m. The opening of public facilities, scheduled for June 30th, affords us the opportunity to do so. Our agenda is relatively light and we hope to adjourn by no later than 10:30 a.m.

HARVESTING / HERBICIDE – The cool weather this spring and consequently like water temperatures make ideal conditions for curly leaf pondweed growth. Commissioner Rod Preble will again be coordinating his harvesting team and our herbicide contractor to tackle the CLP challenge in 2020. More information can be found in this newsletter, including the favorable trends that we are achieving.

EAST BALSAM WATER QUALITY / ALUM – By the time you receive this newsletter we will have completed the first application of alum in the East Balsam Basin. Our contractor, HAB Aquatic Solutions, will have applied the alum the week of June 15th thereby sealing and binding the phosphorous-rich sediment in approximately 300 acres of that basin.

We are expecting material improvement in water quality as less phosphorous releases into the water column and is available to fuel algae blooms. This is the first of four treatments over a period of eight years that should deliver benefits to the lake's water quality for decades to come.

We have engaged a limnologist to monitor the treatment and water quality in East Balsam and will report on the alum treatment's effects in futures issues of *Dock Side*. More information about alum can be found on page 3 of this newsletter.

WATER RUNOFF / HEALTHY LAKES 2020 – Healthy Lakes native plantings, rain gardens and diversion projects will continue to be partially funded through the District and DNR grant funding in 2020. We have received and extension for our unused DNR grant funds that will allow for 75 percent funding up to \$1,000 for approximately ten projects on a first come first serve basis. Please contact Tom Kelly at 612-508-0879 should you have interest in a Healthy Lakes project.



Pelicans heading north over Balsam Lake.

CLEAN BOATS CLEAN WATERS – It was a late opening for CBCW in 2020. A state edict with the blessing of the DNR has prevented us from performing boat and trailer inspections at our boat ramps during the month of May. We typically are training inspectors and monitoring the boat ramp beginning in the first or second week of May. We began monitoring June 1 and are relieved to begin this important AIS prevention program, continuing through September/October.

WELCOME TO THE BOARD Gary Schneider is now the Village of Balsam Lake representative on the BLPRD board.

THANK YOU to all the commissioners, volunteers, consultants, DNR and suppliers who afford their time and talents for the benefit of the lake.

Wishing you a fun and healthy summer season. ●
– Tom Kelly

Balsam Lake Protection & Rehabilitation District Commissioners

Tom Kelly, Chairman
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 Mendota Heights MN 55118
 612-508-0879
 Email: tkelly56@comcast.net
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 Term Expires 2020

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 Term Expires 2020

Gary Schneider, Treasurer
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 Balsam Lake WI 54810
 612-210-3948
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 (Appointed by the Village of Balsam Lake)

www.blprd.com

Contact us

Please contact the commissioners with any questions, comments or concerns you have. Commissioners meet on the third Saturday of the month, starting at 8:30 a.m. at Polk County Business Center, lower level conference room. You are welcome to attend the meetings.

Meeting Schedule

| 2020 | | |
|-------------------------------|--------------|-------------|
| June 20 | September 19 | December 19 |
| July 18 Annual Meeting | October 17 | |
| Unity High School | November 21 | |

New Commissioner Appointed

Gary Schneider has been appointed by the Village Board to represent the Village on the BLPRD Board. Gary and his wife Lynn, have owned a cabin on Idlewild Street in Balsam Lake for over thirty years. After selling their home in Woodbury, Minn. last fall, they made the move and became full time residents of Balsam Lake.

Gary has been retired for five years after a 33-year career with NSP/Xcel Energy. He enjoys long walks, cruising the lake, cheering for the Packers and the Twins, and all that Balsam Lake has to offer. He volunteers with Interfaith Care Givers, and serves as an election supervisor.

Gary will strive to maintain communication between the BLPRD and the Village, and work to ensure that Balsam Lake will continue to be one of the premier lakes in Northwestern Wisconsin. ●



Gary Schneider, new BLPRD commissioner appointed by the Village of Balsam Lake

Alum Facts

Alum is applied to lakes using specialized equipment and barges that ensure the precise placement of the material in the lake. On contact with the water, the liquid alum forms a fluffy aluminum hydroxide precipitate called floc.

Aluminum hydroxide, the principal ingredient of common antacids such as Maalox, binds with the phosphorus to form an aluminum phosphate compound. The compound is insoluble in water and the bound phosphorus can no longer be used to fuel the algae.

As the floc settles, phosphorus and particles are removed from the water column leaving the lake noticeably clearer. The flock then forms a thin layer on the bottom that binds the phosphorus as it leaches out of the bottom sediments during internal loading events. The floc layer keeps the phosphorus from entering the overlying water and makes it unavailable to the algae. The result is a reduction in the frequency and intensity of nuisance algal bloom, rather than the total elimination of all algae.

Alum has been repeatedly shown to be safe for humans. Alum is a common food additive and has also been used for decades to clean our drinking water before consumption. HAB Aquatic Solutions, our alum application contractor, uses the exact same drinking water-certified alum when performing a lake improvement application.

Aluminum, a main ingredient of alum, is the third most abundant element in the earth's crust and naturally occurs in lake sediments. Virtually all food, water, air and soil contain aluminum. The average adult consumes 7-9 milligrams of aluminum every day. The FDA supports the safe use of alum as a food additive and a single dose of Maalox contains 400 milligrams of aluminum.

Alum use in lakes results in an especially low exposure to aluminum as very low amounts of aluminum are added during an application and the alum remains undissolved in the lake sediments. ●

Learn more

A summary of the alum research studies and a presentation from our consultant, Cheryl Clemens, Harmony Environmental, can be found at our website www.blprd.com.



Left: The HAB Aquatic Solutions barge applies aluminum sulfate in our first East Balsam alum treatment on June 14, 2020. Above: The "floc" visible in the water.

East Balsam CLP/ Harvesting Update

A Different Kind of Spring

After two consecutive years of not spraying curly leaf pondweed, the BLPRD Board has made the decision to spray CLP in East Balsam this year.

On May 3rd and 5th of this year Matt Berg, Research Biologist, Endangered Resource Services, completed this year's CLP Pretreatment Survey. Although relatively unchanged from 2019 there was an increase in Rake Fullness in beds 12 and 14B. Rake Fullness is a rating scale used to measure the density of plants present, in this case CLP. Simplified, 1 represents the least amount of plants and 3 represents an abundance of plants. The maps compare the May 2019 survey and the May 2020 survey.

Harvesting has been an effective tool in controlling CLP throughout Balsam Lake. However, East Balsam brings its own challenges. Bed 13 is deeper water than the harvester can reach to cut the plant off completely. Bed 12 is shallow with stumps scattered around. In Bed 14B, CLP growth in years past has been very sparse making it difficult to get complete harvester coverage.

So, it was decided to spray approximately 16 acres this year, far less than the 50 plus acres in previous years highlighted in yellow on the map.

The determining factor for spraying this year is more of a preventative measure to slow the multi-year upward trend, slight as it is. Overall, CLP is about half what it was in 2017, the last time we sprayed. Rake Fullness Rating 1 is up from 2018 but less than 2019; Rake Fullness Rating 2 is up over the previous two years, and Rake Fullness Rating 3 is down overall.

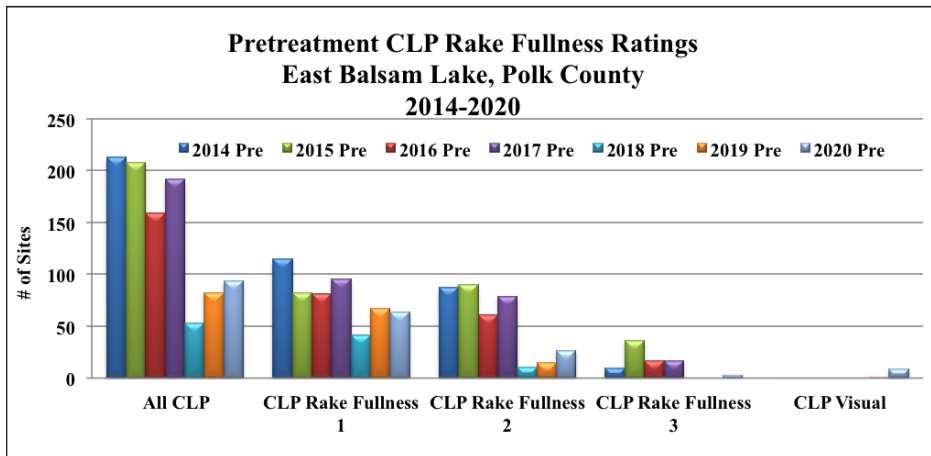
For 2020, our harvesting plan will be the same as previous years.

- Focus early harvesting to target CLP beds in West Basin and East Balsam (June).
- Harvest Navigation Lanes as allowed, approx. 7 acres (late June – Sept).
- Harvest all CLP beds “Second Crop” in both East Balsam and West Basin (Aug - Sept).

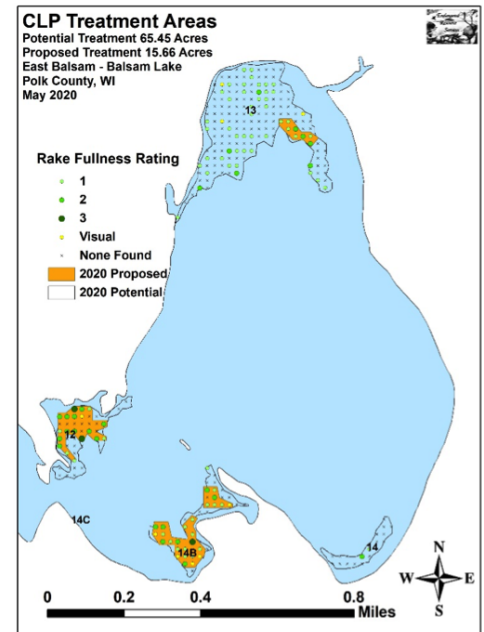
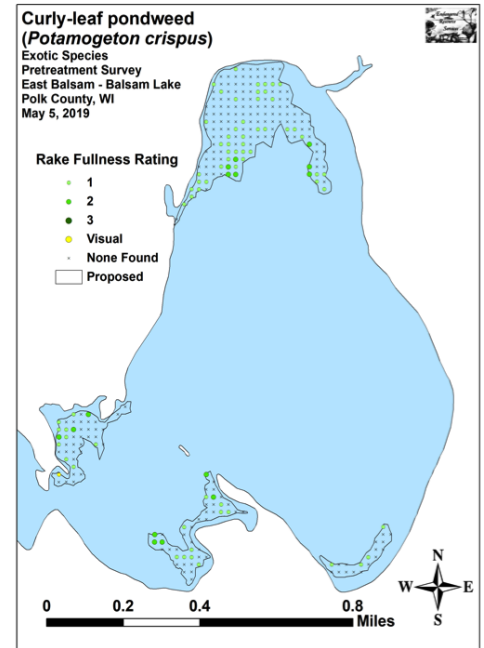
See you on the water.

— Rod Preble

The maps below illustrate East Balsam curly leaf pondweed rake fullness ratings 2019 and 2020 proposed treatment areas.



Curly leaf pondweed rake fullness ratings 2014 to 2020.





Public Notice

BALSAM LAKE PROTECTION AND REHABILITATION DISTRICT

44th ANNUAL MEETING will be held on July 18, 2020, at 8:30 a.m.
Unity Middle School, 1908 150th Street, Balsam Lake, WI.
Enter by the playground door.

Agenda

- 1) CALL TO ORDER:
- 2) INTRODUCTIONS OF COMMISSIONERS AND GUESTS PRESENT
- 3) APPROVE AGENDA
- 4) APPROVE MINUTES OF August 24, 2019 ANNUAL MEETING
- 5) REPORTS
 - Opening Comments – Tom Kelly
- 6) TREASURER REPORT
 - 2019 Annual Report and 2020 YTD / 2021 Budget
- 7) Registered commissioner candidates eligible for 2020 election - vote for two
 - Bill Mork
 - Rod Preble
- 8) Water Quality
 - East Balsam Alum Project – Andy Wilhoit
 - Healthy Lakes 101 – Tom Kelly
- 9) Aquatic Invasive Species
 - Aquatic Plant Management - Harvesting / CLP / AIS / Recreation / Navigation - Rod Preble
 - Clean Boats Clean Waters – Bill Mork
- 10) OLD BUSINESS
 - Long Range Lake Management Plan Update - Tom Kelly
- 11) ELECTION RESULTS
- 12) NEW BUSINESS
- 13) ADJOURN

Voter registration

At any annual meeting or special meeting of the lake district where voting will take place, registration is required. The voter registration list is acquired from the Polk County Treasurer and the county real estate tax rolls.

Election rules are specified by Wis. Stat. §33.01 (9) (ar), §33.30 (3) and §33.30 (5).

Meeting notices

Notices of the meeting and agenda are posted several days before the meeting at the following locations:

Village of Balsam Lake
404 Main St
Balsam Lake, WI

Jonzy Market
1043 185th Ave
Balsam Lake, WI

Balsam Lake Post Office
308 Pearl St
Balsam Lake, WI

Voting rules

To vote at annual meetings of the lake district, a voter must be a U.S. citizen over 18 years of age who is either:

1. An elector (a qualified voter who resides in the District);
2. A person who owns title to real property even if that person's name does not appear on the tax roll (i.e. spouse);
3. A person who is the official representative, officer or employee authorized to vote on behalf of a trust, foundation, corporation, association or other organization owning real property in the District.*

If a person is not named on the tax roll it is up to that person to provide evidence to the District that he/she is owner of property or a designated representative of an organizational property owner. Evidence may be in the form of

- a copy of a deed indicating ownership, or
- a letter on the stationery of an organization owning property which clearly authorizes the person to vote on behalf of that organization.

Each qualified voter is entitled to cast one vote at the annual meeting. Ownership of more than one parcel of real estate within the District does not entitle the owner to more than one vote. Commissioners appointed by the county or town/village/city are eligible to vote at the annual meeting only if they qualify as lake district property owners or electors. No absentee ballots or proxies are permitted.

*Corporations, governmental bodies, trusts and other organizational owners are treated as single owners with one vote. When a property is recorded in a trust, corporation, association or other organization, the members of that organization must designate an official representative to vote on their behalf. Trust members who reside in the District maintain their voting eligibility by virtue of being an elector at an annual meeting. Trust members who reside outside the District are not electors and so must designate their representative.

BLPRD 2020 ANNUAL MEETING

BALSAM LAKE PROTECTION AND REHABILITATION DISTRICT: 2020 ACTUAL vs BUDGET and 2021 Proposed Budget

| | Actual May 2020 | Actual 2019 | 2020 Budget | 2021 Budget |
|--|--------------------|----------------|----------------|----------------|
| REVENUE | | | | |
| TAXES | 83,749 | 166,578 | 160,438 | 254,550 |
| INTEREST CHECKING/CD/SAV | 418 | 1,047 | 800 | 800 |
| GRANTS AIS 2018 -20 | 8,175 | - | - | 28,100 |
| GRANT CBCW | 4,000 | 4,000 | 16,000 | 16,000 |
| EBWQ 2020 | 18,750 | - | 200,000 | - |
| GRANT HEALTHY LAKES 101 | - | 13,591 | 4,000 | 1,000 |
| GRANTS TOTAL | 30,925 | 17,591 | 220,000 | 45,100 |
| LOTTERY CREDIT | - | 2,272 | 1,500 | 1,500 |
| MISC | - | - | - | - |
| TOTAL REVENUE | 115,092 | 187,488 | 382,738 | 301,950 |
| COST OF OPERATIONS / APPROPRIATIONS | | | | |
| BOARD - ADMINISTRATION | | | | |
| Annual meeting expense | - | 1,972 | 2,000 | 2,000 |
| Administrative support | 150 | 1,620 | 900 | 900 |
| Operations equipment | - | 104 | 100 | 100 |
| Office supplies | - | 80 | 100 | 100 |
| Safety deposit box | - | - | - | - |
| Software | 200 | 544 | 480 | 480 |
| TOTAL BOARD ADMINISTRATION | 350 | 4,320 | 3,580 | 3,580 |
| COMMISSIONER EXPENSES | | | | |
| Meetings | - | 5,650 | 8,000 | 8,000 |
| Mileage | - | 2,219 | 4,000 | 3,600 |
| Annual meeting 'Thank You' | - | - | 400 | 400 |
| Convention expenses | - | - | 300 | 300 |
| Books, subscriptions, reference manuals | 158 | 750 | - | 750 |
| Commissioner Project activity expense | - | - | - | - |
| Total COMMISSIONER EXPENSES | 158 | 8,619 | 12,700 | 13,050 |
| DUES/SCHOLARSHIP | 10 | 800 | 1,000 | 1,000 |
| POSTAGE | - | 1,230 | 1,100 | 1,100 |
| PRINTING PUBLISHING | 67 | 5,686 | 10,000 | 10,000 |
| RENT | 450 | 2,250 | 1,800 | 1,800 |
| TOTAL ADMINISTRATION EXPENSES | 527 | 9,966 | 13,900 | 13,900 |
| AQUATIC PLANT MANAGEMENT | | | | |
| Permits | 307 | 307 | 1,500 | 1,500 |
| Herbicide Contractor | 500 | 538 | 37,400 | 37,400 |
| APM Plan & PI survey | - | - | - | 14,575 |
| Lake biologist survey | - | - | 1,100 | 5,500 |
| HARVESTING OPERATIONS | - | 6,314 | 6,420 | 7,500 |
| Total AQUATIC PLANT MANAGEMENT | 807 | 7,159 | 46,420 | 66,475 |
| CLEAN BOATS CLEAN WATERS | 723 | 41,486 | 48,150 | 48,150 |
| WATER RUNOFF PROGRAM | - | 10,601 | 7,000 | 5,000 |
| WATER QUALITY PROJECTS | 135 | 4,837 | 5,000 | 5,000 |
| Alum Consulting | 1,035 | - | - | - |
| EBWQ 2020 | - | 1,193 | - | 15,400 |
| LAKE BOTTOM RESTORATION | - | - | - | - |
| TOTAL WATER QUALITY | 1,893 | 58,117 | 60,150 | 73,550 |
| LOAN PAYMENTS | | | | |
| Principal Payment EBWQ | - | - | 200,000 | 82,000 |
| Interest Payment EBWQ | - | - | 2,888 | 2,995 |
| Principal Payment BCPL #0201642.02 & .03 | 17,866 | 15,972 | 17,869 | 18,500 |
| Interest Payment BCPL Loans | 1,734 | 3,628 | 1,731 | 1,100 |
| TOTAL LOAN PAYMENTS | 19,600 | 19,600 | 222,488 | 104,595 |
| LAKE MANAGEMENT SERVICES | | | | |
| - Portable Toilets | - | 3,699 | 4,000 | 4,000 |
| - Signage | - | 797 | 1,000 | 0 |
| - CONSERVANCY | - | - | - | 0 |
| VOBL DAM MAINTENANCE | - | - | - | 0 |
| LONG RANGE APM PLAN | - | - | - | 0 |
| EQUIPMENT MAINTENANCE & STORAGE | - | 3,346 | 3,000 | 3,000 |
| DOCK REPLACEMENT | - | - | - | 0 |
| TOTAL LAKE MANAGEMENT SERVICES | - | 7,842 | 8,000 | 7,000 |
| CONTRACT SERVICES | | | | |
| ACCOUNTING | 1,200 | 3,304 | 3,000 | 8,000 |
| INSURANCE/BOND | 3,287 | 7,095 | 8,000 | 8,800 |
| LEGAL | - | 4,393 | 1,000 | 1,000 |
| OTHER CONTRACT SERVICES | - | - | 2,500 | 1,000 |
| WEBSITE MAINTENANCE | 87 | 443 | 1,000 | 1,000 |
| TOTAL OTHER CONTACT SERVICES | 4,574 | 15,235 | 15,500 | 19,800 |
| TOTAL OPERATING COSTS | 27,909 | 130,858 | 382,738 | 301,950 |
| BALANCE | 87,183 | 56,630 | | |

BALSAM LAKE PROTECTION AND REHABILITATION DISTRICT: ACTUAL vs BUDGET 2020 and 2021 Proposed, continued

**BALSAM LAKE PROTECTION FUND
REVENUE**

| | 2019 | 2020 |
|---|----------------|----------------|
| Balance Forward | 111,521 | 183,222 |
| Transferred from 2018 Operating Account | 71,701 | 58,336 |
| TOTAL | 183,222 | 241,558 |

LISTED CAPITAL & MAINTENANCE PROJ

| | Year Approved | Balance of Authorized as of 01/01/20 |
|--------------------------|---------------|--------------------------------------|
| RICE CREEK SEDIMENTATION | 2006 | 50,575 |
| AIS RAPID RESPONSE PLAN | 2017 | 20,00 |
| *DREDGING MACHINE | 2015 | 95,880 |
| TOTAL | | 166,455 |

| | 2019 Dec 31 | 2020 Dec 31 | 2021 Dec 31 |
|------------------------|---------------|----------------|----------------|
| BCPL Loan EBWQ 2020 | 30 | 164,000 | 82,000 |
| BCPL Loan #02016142.01 | - | - | - |
| BCPL Loan #02016142.02 | 11,292 | 4,707 | - |
| BCPL Loan #02016142.03 | 40,361 | 35,096 | 20,447 |
| TOTAL | 51,653 | 203,803 | 102,447 |

Purple Loosestrife

Lythrum salicaria & *Lythrum virgatum*

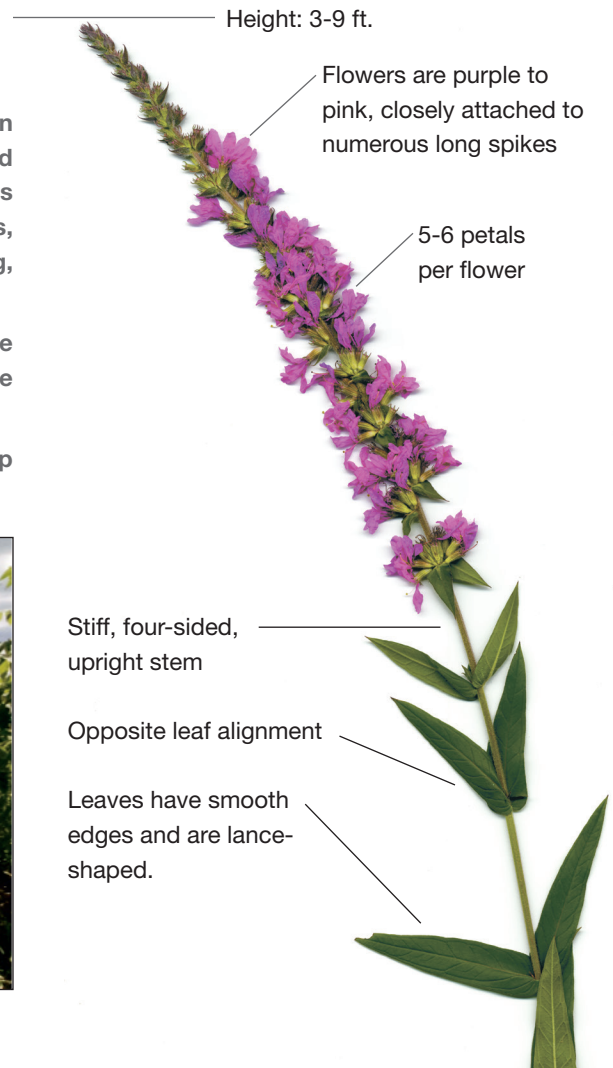
Purple loosestrife is an attractive perennial plant from Europe and Asia—an invasive introduced to North America without the specialized insects and diseases that would keep it in check. It grows tall and fast and spreads rapidly, crowding out native plants that support our birds, pollinators, and wetland animals. As a result, recreational opportunities like hunting, trapping, fishing, bird watching and nature study decrease in wetlands.

Once established, the plant can be difficult to control. If you notice purple loosestrife around the lake, note the location and contact BLPRD Vice Chairman Bill Mork at 763-699-7792, or email: bmork@wmmorkco.com.

Many plants resemble purple loosestrife. Use the information here to help you accurately identify it. ●

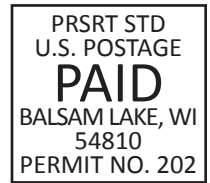


A stand of purple loosestrife invades a native planting along the shore of a nearby lake.



Dock Side

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



ANNUAL MEETING NOTICE ENCLOSED

CBCW Underway As Of June 1

The Clean Boats Clean Waters (CBCW) program is off to another good start under the direction of Terry Morton. Terry has been with CBCW for six years. While the start date for monitoring the boat landings was delayed due to the DNR's COVID-19 restrictions, all the landings were fully staffed effective June 1, 2020.

The individuals who will be monitoring the boat landings attended class online this year. The online session was followed by a two-day training program at the boat landings. The boat landing monitors will be using the watercraft inspection guidelines that follow Governor Evers's Badger Bounce Back plan.

While protective gear has been difficult to come by, we are fortunate to have a very benevolent homeowner in East Balsam who donated several N95 masks!

Hours for monitoring the various landings are as follows:

46 Store and Town Bay

Monday: 10 a.m.–6 p.m.

Tuesday: off

Wednesday-Sunday: 6 a.m.–6 p.m.

Little Balsam and East Balsam

Tuesday-Friday: 6 a.m.–10 a.m.

Saturday-Sunday: 6 a.m.–2 p.m.

Monday: off



Terry Morton, our lead CBCW monitor with a boater at the Town Bay landing.



**Clean, Drain, Dry...
every waterbody, every
time. Before leaving
the water access:**

CLEAN off visible aquatic plants, animals and mud from boat, trailer and all equipment.

DRAIN motor, bilge, livewell and any other water-containing devices.

DRY everything for at least five days before reuse or disinfect.

NEVER MOVE fish or bait from one body of water to another.

stopaquaticinvasives.org