

# Dock Side

Volume XX Issue #3

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Fall 2014

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## CBCW 2014 Clean Boats Clean Waters

We completed our eighth year with the Clean Boats and Clean Waters (CBCW) program for Balsam Lake. This success was achieved with the help of Unity High School students who signed up to work both volunteer and compensated hours. The compensated hours are funded with the help of DNR Aquatic Invasive Species (AIS) grants that we received since the start of our program. Our current grant covers the 2012 - 2014 time-frame. We will be applying for another grant for 2015.

We started 2014 as in past years with opening of fishing on May 3rd (Wisconsin opening of fishing) at all four public landings on the lake. Included were Balsam Lake Village Beach, 46 Store, East Balsam, and Little Balsam. We ended our season on August 31st (Labor Day week-end). This gave us great satisfaction knowing that all four of our public landings had volunteers to work the CBCW program that included boat and trailer inspections, data collection, inform boaters of the laws in place, and AIS information distribution.

Review of the statistics (below) shows we had a down year in 2014 in all areas. This could be attributed to availability of volunteers, weather conditions, and whatever. All data collected is entered into the State DNR SWIMS database and can be accessed at [www.dnr.wi.gov/lakes/cbcw/about/](http://www.dnr.wi.gov/lakes/cbcw/about/).

We did have some reports of uncooperative boaters, however I believe



Maia and Lily Solmon managing East Balsam boat landing

that is something to expect with people. I encourage all BLPRD boaters to introduce themselves to the volunteers and ask them questions regarding the CBCW program when you meet them at one of the landings. They are working to keep our lake free from invasives.

Again, I would like to extend an invitation to anyone interested in the program who would like to volunteer and be part of the CBCW program for 2015 to contact me at 715-485-9421. Our training takes place in April at Unity School prior to the opening of fishing.

Special thanks to Unity School staff for their support with recruiting student volunteers, the Village of Balsam Lake (Lori Duncan) for helping with the time sheet processing, and the Polk County Land and Water Resources Department (Jeremy Williamson and Katlin Holm) for assisting with the CBCW orientation and training. ■

### CBCW Summary Statistics

	2007	2008	2009	2010	2011	2012	2013	2014
Number of Volunteers Involved	17	26	43	44	34	44	21	17
Total Inspection Hours	506	939	1,050	920	908	1,058	873	505
People Contacted	1,164	2,412	4,375	3,367	4,225	4,047	3,194	1,823
Number of Boats Inspected	587	995	1,838	1,669	1,810	1,825	1,407	834

(Note: Team Leader hours not included with Inspection Hours)

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## Annual Meeting Highlights

The Balsam Lake Protection and Rehabilitation District annual meeting was held at Unity High School on July 19th. Two new commissioners were elected to three year terms, Bill Mork and Rod Preble, the village appointed a new commissioner, Glen Jones, funding for two new projects was approved, East Balsam Water Quality Improvement and Raskin Bay Lake Bed Restoration. The Lake District residents attending the annual meeting also directed the board to continue with the aggressive Aquatic Plant Management program and the Clean Boats Clean Waters program.

### **EAST BALSAM WATER QUALITY IMPROVEMENT PROJECT**

Last year East Balsam was declared an impaired body due to high phosphorus loading. The next crucial step in the East Balsam Water Quality Improvement Project is to characterizing the basin. Limnologist, Dr. Bill James from University of Wisconsin, Stout will bring his team in to study East Balsam basin's water column and the lake bed in 2015. He has several goals involved with this study:

1. Measure rates of Phosphorus (P) release from sediment under aerobic and anaerobic conditions in the east basin of Balsam Lake under laboratory conditions for comparison with the P budget findings of Barr (2011),
2. Examine spatial and vertical variations in sediment mobile P fractions that are active in internal P loading for estimation of alum dosage,
3. Quantify the thickness of the excess mobile P layer in the sediment (i.e., active sediment layer contributing to internal P loading) that needs to be controlled alum,
4. Estimate the dosage of alum (as aluminum or Al) required to bind mobile P fractions in this active sediment layer,
5. Provide cost estimates for Al application based on treatment areas in the lake,
6. Evaluate management of internal P loading via de-stratification and Al application in Balsam Lake.

Cont'd pg. 4



## Curly Leaf Pond Weed Treatment A Success!

- Ray Sloss, Commissioner BLPRD

After the disappointing results of the Curly Leaf Pond Weed (CLP) treatment in the spring of 2013, the treatment failed to have any impact on the lake's CLP, the Commissioners determined that there was not going to be a repeat performance.

A new applicator was selected, Clean Lakes Inc. Clean Lakes Inc. brought state of the art equipment to the theater. Commissioner Carl Holmgren, backing up Commissioner Loren Johnson, provided direct oversight of the process.

The results are in and verified for 2014. Carl Holmgren reported the results to the board, "It worked! It worked very well." The CLP in the treatment areas was suppressed. More than that, during a late summer follow-up it was noted that the native aquatic plants were reclaiming the area. A lake resident whose water front was part of the treatment area summed it up as such "The area is Great! I can operate my boat from my dock without having to become entangled in vegetation."

Can CLP be eradicated? Commissioner Ray Sloss met with the President of the Beaver Damn Lake Management District, Tom Schroeder, to discuss this and other lake management topics. Tom reported that this spring the CLP bed in Beaver Damn Lake was so small that they were able to hand pull the last few CLP plants. Tom said, "CLP has been eradicated in Beaver Damn Lake." Beaver Damn Lake's eradication program consisted of aggressive aquatic herbicide treatment followed by a plant survey to observe results.

Learning from our experiences we now have the confidence to manage longer term contracts which allow us to develop a relationship with our aquatic herbicide vendor. The Board discussed the possibility of entering into a 5 year agreement with an applicator. What we will be asking the applications vendor to do is to partner with us long term to help manage our CLP problem with a goal of working themselves out of a job. We believe that this goal can be achieved with the help of a quality aquatic herbicide vendor who shares in this vision. ■

# Underwater Insect Eater

## *Not Exactly a Venus Flytrap, but Pretty Cool!*

By Susan Knight, Trout Lake Station, UW-Center for Limnology and Susan Borman

Leafy, pale green stems wave in shallow water. A gentle tug unearths the white, bladder-covered stems lying hidden in the mud. Two distinct halves make the whole – light-capturing leaves on one end and prey-capturing traps on the other.

So goes the introduction to *Utricularia intermedia* (flat-leaved bladderwort). *Utricularia* is a plant named for its tiny bladders, or utricles. Currently there are 220 listed species of *Utricularia* and these plants are found throughout the world. They typically are found in waters where the nutrient concentration is relatively low and supplement their diet by trapping small insects in a bladder that is like the bulb on a turkey baster.

Tiny hair-like projections at the opening of the bladder are sensitive to motion of tiny zooplankton passing by. When these hairs are stimulated it causes a flattened bladder to suddenly inflate, sucking in water and the passing animal. The door closes behind it.

Flat-leaved bladderwort has two parts: the leafy green stems (7.5 to 25 cm long) are easily visible in shallow water and the bladder-covered stems are usually found embedded in the sediments. However, the plant may become dislodged and can sometimes be found drifting or creeping along the bottom. The leaves are up to 2 cm long, green, and numerous and dense on leafy stems. Leaves are usually 3-parted at the base and then further divided one to three times.

Yellow, two-lipped flowers are produced on 6-20 centimeter-long stalks that protrude out of the water. The lower lip of the flower is nearly twice as long as the upper lip, and there may be 2-4 flowers per stalk. A bee, or other pollinator, lands on the lower lip. The weight of the insect pulls down the lip slightly. This opens the flower like a mouth. Inside the mouth, the 2-parted stigma waits for the delivery of pollen. If the insect has visited other flowers the pollen on its back will adhere to the open stigma. Flowers may develop in June, July and August.

Flat-leaved bladderwort thrives in shallow, usually alkaline water but may also be found in deeper water and streams. It prefers soft substrate. It often co-occurs with the common bladderwort (*Utricularia vulgaris*). Because the bladders are normally held below the sediment surface, the bladders are presumably catching benthic invertebrates, rather than invertebrates found in the water column.

Flat-leaved bladderwort overwinters primarily by winter buds, known as turions. The leafy and bladder-covered stems decay through the fall and winter, and the turions fall to the lake bottom or are caught in the ice. In the spring, new shoots, both leafy and bladder-covered, will emerge from the turion.



Figure 1

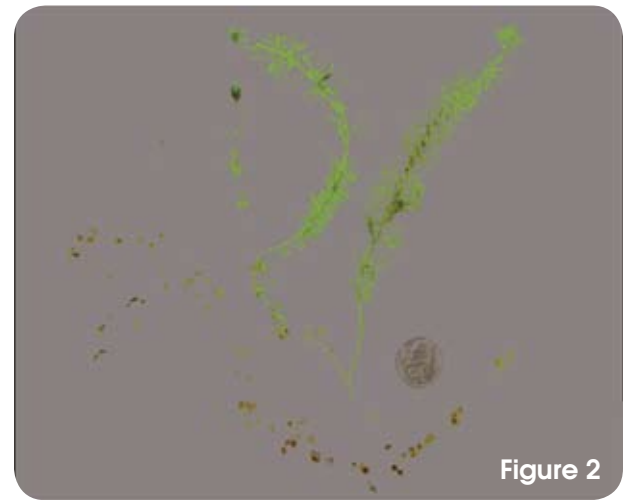


Figure 2

Illustration by Dorothy (Figure 2). [These plants] supplement their diet by trapping small insects in a bladder that is like the bulb on a turkey baster.

Photos by Paul Skawinski printed with permission from the book "Aquatic Plants of the Upper Midwest"

Shown here (Figure 1) you can see the two distinct ends of the plant, and its dainty little yellow flower that pops out above the surface of the water. ■

## SAVE THE DATE!

The next Balsam Lake Protection and Rehabilitation District annual meeting will be July 18th, 2015. The Lake District is responsible for Balsam Lake Water Quality, navigation lanes and education. To accomplish these goals the board interfaces with state government, county government, village government, industry experts and Wisconsin's colleges in environmental sciences. All you need to participate in lake district governance is to be a land owner in the Lake District or a renter in the Lake District. This is as grassroots as it gets.

## Annual Meeting Highlights (Cont.)

### RASKIN BAY LAKE BED RESTORATION PROJECT

Raskin Bay has accumulated a thick biomass that presents itself as muck. Shoreline residents remember this area as sand and gravel lake bed that supporting a robust population of pan fish. They use to watch sunfish building a nest in the gravel lake bed, quite different from the way it presents itself today. There are two goals for this project:

1. Remove the biomass mat,
2. Take mitigating steps to, as much as possible prevent recurrence.

Removing biomass material from the lake bed is complex. It involves environmental considerations, disposal considerations and a daunting permitting process. The fund approved will allow the board to hire a project management firm experienced in this type of activity.



### AQUATIC PLANT MANAGEMENT PROGRAM

For 2014 the board contracted with a new firm for treatment of curly leaf pondweed. That firm brought state of the art equipment to Balsam Lake and the results met expectations meaning that we saw positive control of curly leaf pondweed in the treatment areas. Treatment of the invasive species Curly Leaf Pondweed continues to be our most expensive program. Lake District annual meeting attendees approved continuation for the Aquatic Plant Management Program.

### CLEAN BOATS CLEAN WATER PROGRAM

The Clean Boats Clean Waters program is our first physical line of defense against entry of invasive species into our lake. The law is the first line of defense, drain your water and remove all aquatic hanging vegetation before leaving the boat ramp of any lake. But if lake visitors fail to comply then the lake is put at risk.

Monitoring the lake's boat landings during peak periods, placing trained eyes at each of the major boat ramps, helps keep the lake free of such invasive hitch hikers as Eurasian Milfoil and Zebra Mussels. Currently it costs us, Lake District residences, \$15,000 a year to run the CBCW program. It costs us \$50,000 per year to treat our one and only invasive aquatic plant Curly Leaf Pondweed. For obvious reasons Lake District residents directed that CBCW program shall continue through 2015.

Both of these projects and both of these programs involve and require the support of Lake District residents to be successful. The projects, East Balsam Water Quality Improvement and Raskin Bay Lake Bed Restoration projects have had strong participation by shoreline residents that has provided a great start. As the board moves forward with these projects the board will consider holding informational meetings in the spring of 2015 to discuss the projects.

The two programs, Aquatic Plant Management and CBCW are in the capable hands of the board. Each year the commissioner that is the lead for the program reports the results at the annual meeting and again in the Dockside.

### TWO GUEST SPEAKERS HIGHLIGHTED THE ANNUAL MEETING

*Two guest speakers presented at the annual meeting and fielded several questions from the floor.*

**DAN HARRINGTON**, Water Regulations and Zoning Specialist with the WDNR is responsible for regulating from the ordinary high water mark down. His presentation power point captivated the audience and generated good questions as Lake District Shoreland owners seek to understand the regulation affecting them and the basis for those regulations. Dan covered the online application process, the impacts of wild rice as it pertains to tribal considerations, shoreline alterations, vegetation removal and his graded approach to violations starting with voluntary compliance.

Warden **JESSE ASHTON** completed with his discussion of what he is observing in the performance of his duties. He began by stating that Balsam Lake is a very calm lake. The Balsam Lake police do perform safety checks on the lake. Violations tend to be personal watercraft and inoperable lighting on boats. Jesse stated that if you were born after January 1st, 1989 you need to have a boating certificate. Wisconsin recognizes Minnesota's boating operator certificates. The boating operator's certificate must be in possession when operating watercraft.

# New Lake District Commissioners Prepare to Tackle Activities

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*As we bid farewell to Dave Wagner, Loren Johnson and Caroline Rediske thanking each of them for six years of service to the Lake District, we mark their accomplishments and we welcome two new elected Commissioners and one new appointed Commissioner.*

**BILL MORK** grew up on Balsam Lake. Each summer was spent at his parent's cabin on East Balsam. His grand dad had owned property on Balsam Lake for 80 years. "It was a great time to be a kid," said Bill. Bill and his wife, Margaret have own their cabin on East Balsam for 16 or 17 years. Bill's goal for Balsam Lake stems from his memories when he and his grandfather use to fish the lake. He wants to return the lake to the condition it was during that time in his life. Bill agrees that restoring water quality on East Balsam is important to the quality of the lake. Bill also supports restoring Raskin Bay to return it to a productive area for the lake.



Bill Mork was elected to the Board at the annual meeting in July. His term is three years.

**ROD PREBLE** was also elected to the Balsam Lake District board at the annual meeting on July 20th, 2014. His term is also three year term. Rod's great, great-grandfather was an early settler to Polk County. In fact he ran the lumberyard at Balsam Lake in the 1850's. Rod's Wife, Lyn, has been coming to Balsam Lake for 50 years. Her grandfather owned a cabin on the lake. Rod and Lyn have owned their cabin on Raskin Bay for 32 years. Like many on Balsam lake Rod and Lyn plan on passing their lake home on to their son and granddaughter. "I can remember catching crappies, big crappies with my grandfather and we would clean and enjoy a fresh fish diner. That memory is the picture I am using as to what the Lake could once again, become." Rod supports improving the water quality of East Balsam and restoring Raskin Bay. What is important to Rod is water quality and actions that improve water quality.

The Village of Balsam Lake has the option to appoint a Lake District Commissioner. Replacing Caroline Rediske is **GLEN JONES**. Glen's appointment began June 21st, 2014. Glen is heavily involved in Balsam Lake. He chair's the local Chamber of Commerce, was elected to the village board and is an assistant manager at Paradise Landing. Glen's interest is in strengthening the communities businesses. He recognizes the importance Balsam lake Glen will maintain communication between the Lake District and the Village as we have common interests, in particular, the Mill Pond Dam.



Glen's Appointment began in June, serving at the pleasure of the Village.

## THOSE DEPARTING....

**DAVE WAGNER** Dave was instrumental in several key projects:

- Dave worked closely with Milt Stanze to secure the Stump's Bay conservancy,
- Dave worked with a Balsam Lake Benefactor to secure the Rice Creek conservancy,
- Dave managed the Rice Creek settling pond,
- Dave introduced the technology to allow mapping the lake bottom topography,

**LOREN JOHNSON** Loren managed the aquatic herbicide vendors. He also investigated aquatic harvesters and was a strong advocate for re-introducing harvesting to Balsam Lake.

**CAROLINE REDISKE** Caroline was the Balsam lake Village appointed commissioner. She strengthened the ties between the village counsel and the Lake District.

- She drove a project to capture runoff at the County 46 landing,
- She worked with the village to assemble a street drainage map. This allowed the Lake District and the village to work together evaluating opportunities to reduce water runoff,
- Working with the village she built a case that allowed a reduction in the Mill Pond Dam fund with the potential for saving up to \$5,000 per year,
- She assembled and managed a team to support the Raskin Bay project.

*Three will be missed. Three will pick up where they left off.*

# 6 Purple Loosestrife

Katelin Holm, Information and Education Coordinator,  
Land and Water Resource Department, Polk County

**PURPLE LOOSESTRIFE** is an aquatic invasive plant that was introduced to the United States from Europe and Asia in the early 1800's for beekeeping and as a garden ornamental. It has been present in Polk County for many years and is known to be established on 8 Polk County lakes. In addition to colonizing the shores of lakes, purple loosestrife is also found in numerous wetland sites and roadside ditches across Polk County. On Balsam Lake, purple loosestrife is located along the channel north from the beach and boat landing and in Town Bay. As an introduced species lacking natural predators, purple loosestrife spreads rapidly and colonizes wetlands, shorelines, and roadside ditches. Thick stands of purple loosestrife crowd out native vegetation and reduce food, shelter, and nesting sites for a variety of wildlife including birds, turtles, and frogs.

Purple loosestrife is a perennial plant that grows 3-7 feet tall and develops a spike of small purple flowers in late summer. The leaves of the plant are lance shaped and arranged oppositely along a square shaped stem. Purple loosestrife can establish from root or stem fragments, but spreads primarily by seed. A single mature purple loosestrife plant can produce over 2 million seeds. Additionally, as a perennial, purple loosestrife is able to survive northern Wisconsin winters.

The DNR website recommends digging or hard pulling young small purple loosestrife plants or digging large plants

to ensure all root fragments are removed. All plant parts should be burned or land filled. Chemicals such as imazapyr or glyphosate work well against purple loosestrife, although a permit may be required if applying near water and aquatic use formulas should be used. At a minimum, carefully cutting the flower spikes into a garbage bag and prevent the spread of purple loosestrife seed.

For large stands of purple loosestrife, *Galerucella* beetles have been used successfully to control purple loosestrife in many parts of the state. *Galerucella* beetles feed extensively on the foliage of purple loosestrife, stressing the plant enough so that it is unable to produce seeds. Long term monitoring has ensured that these insects pose no threat to crop plants or native plant species. This spring, the Balsam Lake Protection and Rehabilitation District worked with the Polk County Land and Water Resources Department and a dedicated volunteer to raise and release beetles in Town Bay. This effort will continue in the future. ■



# The Benefits of a by Ray Sloss Shoreline Vegetation Area

When you decide to perform a permitted structural repair or modification to your lake residence, you will likely be introduced to the Polk County Shoreline Protection Zoning Ordinance. The purpose of the Polk County Shoreline Zoning Protection Ordinance is to protect the lake. There are minimum lot sizes, minimum lot width, minimum set backs from the ordinary high water mark (OHWM) and a 35 foot Shoreline Vegetation Protection Area. This discussion will be about the importance and benefits the Shoreline Vegetation Area to our lake.

The Shoreline Vegetation Area is measured from the OHWM landward for 35 feet. All new developed lots and construction allowed after April 30th, 2002 that has riparian access must comply with this requirement. However, many of the structures on Balsam Lake were built prior to the adoption of the present Shoreline Zoning Protection Ordinance do not meet present day setbacks. Some have walls or decks that are less than 35 feet from the ordinary high water mark.

Then how does the shoreline vegetation area function? Let's start out explaining what the shoreline vegetation area is. It is a combination of shallow root plants such as sedges and rushes, intermediate root plants such as shrubs, and deep root plants such as deciduous trees and coniferous trees. The roots of the plants pull moisture from the soil to be used in the photosynthesis process. This area can now function as an absorbent sponge preventing runoff from entering the lake. The environmental scientists have determined that 35 feet will afford the lake protection from rain water runoff. Actually any runoff tends to deteriorate the lake as runoff carries nutrients such as phosphorus and nitrogen as well as sediments.

Evaluate your property at the water's edge. If it is grass then you are not enjoying any of the benefits the Vegetation Area provides. Geese like you. If you cannot do a 35 foot Shoreline Vegetation Area, what could be done? I am not an advocate for reducing the Vegetation Area in the Shoreline Protection Zoning Ordinance. There is a real world and a 10 foot vegetation area is better than grass to the water's edge. A 15 foot vegetation area is better than a 10 foot. Evaluate your hard cover areas. Preventing runoff from hard cover areas can be accomplished with a rock garden or rain barrels and it pays us benefits.

We all spend a lot of time at the lake, on the lake and in the lake. Let's invest in maintaining the lake. We each have a part.



## **BENEFITS OF PLANTS AROUND THE LAKE ARE:**

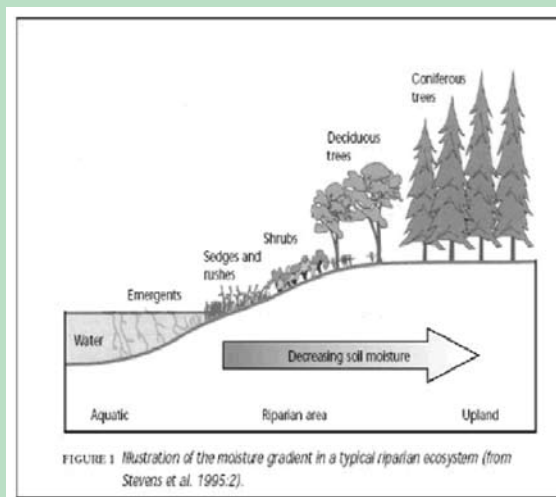
Provide food and cover for a variety of animals.

**Extensive root system stabilize lake-bank soils against the erosive effect of waves,**

Plants prevent erosion on upland slopes,

**Absorbs nutrients such as phosphorus and nitrogen,**

Enhances the beauty of Balsam Lake.



# DOCK SIDE

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

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## 2014 - 2015 Meeting Schedule

October 18, 2014  
November 15, 2014  
December 20, 2014  
January 17, 2015  
February 21, 2015  
March 21, 2015  
April 18, 2015  
May 16, 2015  
June 20, 2015  
July 18 - Annual Meeting

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

## Commissioners

### RAYMOND SLOSS, CHAIRMAN

1339 Madison Street  
Hastings, MN 55033  
Cell: 612-965-6455  
E-mail: slsr01@comcast.net  
Term Expires: July 2015

### BILL MORK, VICE CHAIRMAN

3585 Birchpond Road  
Eagan, MN 55122  
Home: 763-242-1927  
Work: 952-926-3110  
E-mail: bmork@wmmorkco.com  
Term Expires: July 2017

### CARL HOLMGREN, SECRETARY/TREASURER

105 Indianhead Point Road  
Balsam Lake, WI 54810  
Home: 715-485-9421  
Cell: 715-523-9191  
E-mail: holmgren@lakeland.ws  
Term Expires: Apr 2016 - Cty Board

### GLEN JONES

147 Royal Oak Drive  
Balsam Lake, WI 54810  
Home: 952-288-3548  
E-mail: gjones@paradiselandingwi.com  
Term Expires: Apr 2016 - Village of B.L.

### ED MCGLYNN

1761 108th Street/County Road I  
Balsam Lake, WI 54810  
Cell: 512-418-2910  
Lake: 715-857-5202  
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Term Expires: July 2015

### HOWARD SEIM

1425 Molan Terrace  
Columbia Heights, MN 55421  
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Lake: 715-825-2302  
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Term Expires: July 2016

### ROD PREBLE

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