

Lake Redstone

PROTECTION CONNECTION

SPRING 2019

NEWS FROM THE LAKE REDSTONE PROTECTION DISTRICT

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“
If you're lucky
enough to live
at the lake,
you're lucky
enough.
”



PHOTO: AYRES ASSOCIATES

Floods damaged the berm at Meronek Meadows.

2018 will be remembered for the severe flooding of Lake Redstone

By Paul Burke, LRPD board commissioner with Chuck Ecklund and Jay Kolb, Water Quality Committee members

In August and September of 2018, you saw the damage caused by the floods – up close and personal. Our homes, roads, and lake suffered from the extreme rains that pelted our community. The Village of La Valle was under water, many buildings were damaged – some so much they were condemned. Roads and bridges were destroyed. The newly renovated Section 11 Boat Landing had water running under the new asphalt ramp and parking area making it unusable.

It is still closed and will be for most or all of 2019. Many Lake Redstone home owners suffered from the water, sand and sediment that flowed down the hills and damaged property.

The lake suffered from the excessive rains, too. Not only were boats, lifts and docks swept away, but the water rushing down surrounding hills carried sand and sediment into the lake. A berm in Meronek Meadows at the end of Mourning Dove bay that was created following the 2008 flood was washed out. It will need to be repaired or replaced with an alternative strategy to prevent sediment from

Continued on next page



Flood damage to section 11 boat landing.



Floods left sediment deposits in many bays around the lake.

Flooding from page 1

entering the lake again. The LRPD is working with FEMA in to secure federal funding to help with dredging costs.

In preparation for dredging, the LRPD performed a bathymetric survey – measuring the contours of the lake bottom – comparing the 2015 and 2018 results. In 2018, there was an

additional 67,340 cubic yards of sediment in the bays of Lake Redstone. Some bays had as much as 4.5 feet of sediment deposited.

The floods also moved nearly 36,000 cubic yards of sediment from the bays into the main body of the lake. And there was more sediment deposited into Lake Redstone from



After the floods, some bays had as much as 4.5 feet of sediment deposited.

all sources, but that has not been quantified. ■

2019 Update on the Dredging Project

By The Dredging Committee

Dredging has been a major focus in the past couple of years. We were hoping to get consensus to move forward. But, when the project was put out for bids last summer, the Board decided that even the lowest bid was too expensive, so they rejected all bids.

Discussions with contractors who bid, and others who did not, led us to conclude that restrictions placed on the dredging process was one factor that caused the bids to be high and prohibited other contractors from bidding. So, the dredging committee and LRPD board have explored ways to lessen the restrictions and hopefully lower the costs and meet our dredging goals.

Restrictions that increased costs

- **Having only a single site for spoils disposal.** So, the board has identified eight additional disposal sites scattered around the lake that contractors can use if they wish.
- **Limited strategies for dewatering the spoils.**
- **The short time frame in which dredging could be performed.**

Over the past months, the dredging committee has worked with Ayres Associates, our consultants, to mitigate these concerns.

Delaying dredging had benefits

The 2018 flood would have prevented dredging from occurring on the originally proposed schedule. And with all the additional sediment, we needed to pause and survey again to find out how that would impact the dredging estimate. We're glad we did. That additional 67,340 cubic yards of sediment referenced in the cover story would fill a concrete mixer truck about 5,000 times. Naturally, that will add costs.

The LRPD board and the dredging committee also have been exploring

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A fine looking group of fishing lovers

Fishing Club Puts Walleyes into Lake Redstone

By Tom Walters, Water Quality Committee member

Even though the Lake Redstone Fishing Club has no official association with the Lake Redstone Protection District, they have similar goals. The LRFC seeks to enable positive fishing experiences by promoting conservation, recreation, education, and safety.

The fishing club is a 501C tax-exempt nonprofit organization that had 48 members in 2018. Meetings are held monthly, with most meetings having a presentation by a guest speaker who addresses topics of interest or concern regarding fishing on Lake Redstone.

Using fundraisers of various kinds, including apparel sales, meat raffles at the North End Tavern, Ice Fisherees in January, 2018 & 2019, as well as tax-exempt donations resulted in the club raising sufficient funds to allow the release of 3,000 6-8" walleyes into Lake Redstone in September of 2018. The DNR stocks Redstone in odd-numbered years with walleye fingerlings and the LRFC plans to stock in even numbered years with more mature walleyes. Nathan Nye, the DNR Fisheries biologist for Lake Redstone, believes this rotation can have a positive result for our fishery.



PHOTO: SUE BURKE

One of the 3,000 walleyes the LRFC stocked last year.

For more information on the fishing club visit their Facebook page at Lake Redstone Fishing Club or send them an email message at their newly established email address: lakeredstonefc@gmail.com. ■

Dredging from page 2

other sources of funding to pay for the dredging. For example, we've applied to FEMA to reimburse us for dredging, since so much of the sediments were caused by the 2018 floods. We'll hear in the next few months. The LRPD board has also requested support from Sauk County. Our original requests to Sauk County were not approved, but negotiations are still underway and we are optimistic that Sauk County will be able to provide some financial support.

Dredging moving forward

The LRPD board has requested new



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bids from contractors by April 16, 2019. Assuming we get acceptable bids, the LRPD board will present the plans for dredging to district residents and ask for approval to borrow the required

funds at a special meeting that is currently scheduled for Saturday, May 18, 2019.

For the latest information on the dredging project and the district special meeting, please check the Lake Redstone Protection Districts website, Facebook page or the app that is available for your smartphone or tablet. ■

Lake Management Plan Update

By Ken Keegstra, LRPD board secretary, and Dave Blumer, Consultant from Lake Education and Planning Services (LEAPS)

Before we get into the details of the plan, we want you to know that the entire process is supported by grants from the WDNR. Because these grants are limited in size, the process is divided into three phases. Phases 1 and 2 began in 2018 and run through 2019. We were recently notified that our phase 3 grant application has been approved, so phase 3 activities will begin in 2019 and will continue through 2020. By the end of the process, we expect to have a 5-year plan for systematically improving the water quality in Lake Redstone and for monitoring and evaluating progress.

PHOTO: DON MCCUNE



Part of the lake sampling team (from left) Wally Moeller, Tom Walters, Paul Burke, Ken Keegstra, and Chuck Ecklund.

Phase 1: Monitoring Water Quality

With support from these grants we will continue monitoring water quality in Lake Redstone. Volunteers have been collecting water quality data from three main sites in the lake since 1998. The “lower” site is in the deeper basin near the dam. The “middle” site is about half way between the dam and the two inlets to the lake, and the “upper” site is near where the two northern-most lobes of the lake come together. Over the years, volunteers have measured

three parameters associated with water quality:

- **Water clarity** as measured by a Secchi disk;
- **Total phosphorus** in the surface waters and sometimes in the waters near the bottom of the lake;
- **Chlorophyll** – a measure of the amount of green pigment in plants and algae.

All three of these parameters are linked and can shed light on issues causing a decline in clear water. During 2018 and 2019 additional parameters of water

quality are being measured. With last year’s flooding, we saw particularly poor water clarity readings, so the data gathered this year will be important in analyzing trends.

Phase 2: Monitoring Water Flow

The monitoring of the flow of water into Lake Redstone from the east and west branches of Big Creek will help us quantify the amount of water moving through them, and the amount of phosphorus and sediment in that water being carried into Lake Redstone. A site downstream of the outlet of

Lake Redstone was also monitored to quantify how much sediment and nutrients are carried out in water leaving Lake Redstone.

You know better than anyone, that 2018 was not a “normal” year with such significant flooding – much like 2008. April, May, August, and September all had more than 4 inches of rainfall. May recorded nearly 8 inches, August more than 14, and September more than 12. By the end of August the

rain and flooding made water level and flow monitoring, even collection of water samples for lab analysis, difficult or impossible, challenging the capacity of our monitoring program to accurately reflect totals. So now we are working with Juneau and Sauk County agents to explore how we can make monitoring better in 2019.

That said, we worked to make sense of the data that was collected in 2018 by Lake Redstone volunteers and Juneau and Sauk County partners. Lots of data can be summed up in a few quick words:

- A massive amount of sediment was carried into the lake from the two main branches of Big Creek.
- The amount of sediment totally and completely eclipses the amount of sediment carried in during normal flow.
- The sediments also carried in a load of nutrients, including phosphorus and nitrogen, which stimulate the growth of aquatic plants and algae.

Phase 3: Understanding our data

It’s time to collate, analyze and interpret all the data collected over the years, including data about the lake water quality going back to 1998. In the 2018 *Lake Redstone Protection Connection*, we outlined the nine-key elements that will help us generate a comprehensive lake management plan.

We’ll post what we learn on our web site. Contact a LRPD board member if you’d like to help collect water samples. ■

Interested in the background of Lake Redstone’s management plan? See the 2017 and 2018 issues of the *Lake Redstone Protection Connection* at lakeredstonepd.org.

2018 Lake Redstone Shoreline Habitat Assessment

By Dave Blumer, Consultant from Lake Education and Planning Services (LEAPS)

The Healthy Lakes Initiative is a WDNR program that provides support through information and grant funding to small-scale projects that will help improve both shoreline habitat and lake health. (More on p.6)

A shoreline habitat assessment helps determine which properties would receive the greatest benefit from installing one or more of these practices. These shoreline assessments are supported by the lake management grant the LRPD obtained from the WDNR (more on p.4). Last summer, all of the properties bordering Lake Redstone were assessed.

A system to evaluate shorelines

The protocol used in the shoreline habitat assessment was developed by the WDNR as a way to evaluate the quality of the shoreline habitat on each individual property. The parcels were each assigned a point value and a priority ranking based on the percentage of various ground cover type, canopy cover, and several other owner-controlled factors. Only a strip of land from the water's edge back 35 feet was evaluated.

In Table 1, you can see the factors used to determine the score and priority of each parcel. These are the factors that have the biggest impact on improving habitat quality and reducing rainwater runoff. In Table 2, values of most concern are in the red column.

While the ultimate goal of this assessment was to determine and improve the habitat found along the shoreline, installing one or more of

these projects along heavily developed shoreline can also help reduce the amount of polluted runoff water that enters the lake. Last year's shoreline habitat assessment provides a guide to the Lake District for the most effective use of their resources as they reach out to property owners to provide financial and/or logistical support for making improvements. More than 780 parcels immediately adja-

cent to Lake Redstone were evaluated by LEAPS and Lake District volunteers in June of 2018.

All the results will be reported before next summer, but Table 2 summarizes the lake-wide results. Nearly 54 percent were given a priority rating of moderate or high, meaning these are the properties that would most benefit from one or more of the practices mentioned previously. This is not to suggest that other properties wouldn't benefit, they are simply a lower priority. ■



Table 1: Value ranges for color assignments of each parameter of concern.

Owner-controlled factors	Red Range (2 points)	Yellow Range (1 point)	White (No points)
Percent canopy cover	0-33%	34-66%	>66%
Percent shrub and herbaceous (undisturbed)	0-33%	34-66%	>66%
Percent lawn, impervious, and other surfaces	>66%	34-66%	0-33%
Number of buildings and other human structures	>1	1	0
Presence/Absence of lawn or soil sloping to lake	N/A	1 (Present)	0 (Absent)
Presence/Absence of bare soil	1 (Present)	N/A	0 (Absent)
Presence/Absence of sand deposits	N/A	1 (Present)	0 (Absent)

Table 2: Score ranges and priority rankings for the 784 parcels surrounding Lake Redstone.

Color	Overall Score	Priority	Number of Parcels
Red	7-10 points	High	214
Orange	4-6 points	Moderate	209
Yellow	2-3 points	Low	69
White	0-1 Points	No Concern	292

You – and our lake – can benefit from DNR’s Healthy Lakes Grants

By Mike Mittelstadt, LRPD Board Chair

Did you know that the DNR provides grants of up to one thousand dollars for managing erosion and run off? In 2018, two Lake Redstone homeowners applied for grants and completed projects using this program. Healthy Lakes includes 5 simple and inexpensive best practices that improve habitat and water quality on your lake shore property.



GRAPHIC: HEALTHYLAKESWI.COM

ROCK INFILTRATION ■ Capture and clean runoff.

Rock Infiltration practices fit in nicely along roof drip lines and driveways and provide space for runoff to filter itself. They work best if your soil is sandy or loamy.

FISH STICKS ■ Create fish and wildlife habitat.

Fish Sticks are feeding, breeding, and

nesting areas for all sorts of critters – from fish to song birds. They can also prevent bank erosion – protecting lakeshore properties and your lake.

RAIN GARDEN ■ Create wildlife habitat and natural beauty while capturing and cleaning runoff.

Rain gardens multi-task – they improve habitat and filter runoff while providing a naturally beautiful view.

DIVERSION ■ Reduce runoff directly flowing into our lake.

Diversion practices move water to

areas where it can soak into the ground instead. Depending on your property, multiple diversions may be necessary.

NATIVE PLANTINGS ■ Improve wildlife habitat, natural beauty, and privacy, and decrease runoff.

Native Plantings include grasses and wildflowers with shrubs and trees. Choose a template based on your property and interests – from bird/butterfly habitat to a low-growing garden showcasing your lake view. ■

Join Us for Our Annual Meeting August 3, 2019

By Mike Mittelstadt, LRPD Board Chair

We hope to see **you** at the LRPD Annual Meeting on Saturday, August 3 at the La Valle Town Hall.

There are two Commissioner’s positions up for election this year on the LRPD Board. If you are interested in becoming a candidate, submit a brief biography to Secretary, Ken Keegstra



at P.O. Box 313, La Valle, WI 53941 by July 1, 2019. Email applications will also be accepted; send them to: ken.keegstra@gmail.com.

As always, nominations for Commissioner will be accepted from the floor. ■

LOVE YOUR LAKE VOLUNTEER!

Your skills are needed to help make our lake a better place for boating, fishing, and recreation, and to maintain water quality for all to enjoy. Volunteers are needed for many activities, including: stream and water sampling, help with the clean boats/clean waters program, record keeping, Facebook page maintenance. Regardless of your interests or expertise, or whether you can spare an hour now and then or several hours a month, we welcome your help!

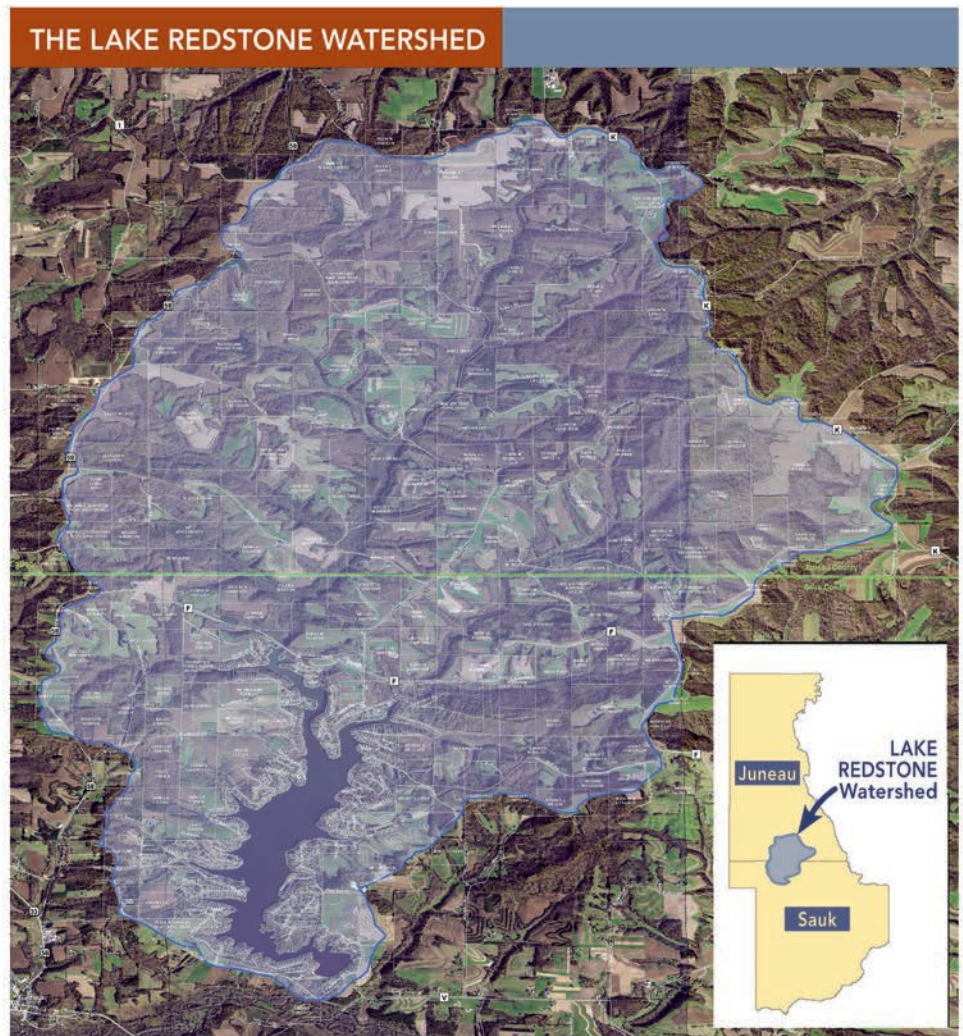
Visit lakeredstonepd.org and check out the Volunteer Opportunities tab for more details or speak with a board member. ■

Improvement in the Lake Redstone watershed

By Dustin Ladd, *Juneau County Conservationist*, and Sarah Fleck, *Juneau County Soil Conservation Technician*

The LRPD continues to cooperate with staff from Juneau and Sauk County as well as with farmers in the Lake Redstone watershed to make improvements that will benefit the farmers and help control sediment and nutrient runoff. Juneau County staff helped farmers form a producer-led cooperative, who applied for, and received, a watershed grant. The \$40,000 grant will cover activities related to soil loss in the Lake Redstone watershed. They expect to start work on the project in early spring with inter-seeded cover crops and the start of the manure sharing project. The lead farmers on this project, Brian Daugs and Nathan White, attended the Producer-Led Workshop at Stevens Point in February. Collaborators and producers from all over the state met to discuss ongoing projects in watersheds throughout the state.

In September of 2018, Juneau County staff – Matt Komiskey, Brian Goepfert, and Dustin Ladd – and Discovery Farms staff – Eric Cooley, Aaron Wunderlin, and Aaron Pape – installed two edge-of-field monitoring sites in our watershed. These boxes, one along County Hwy F in Sauk County and another on Daugs Road in Juneau County, will be collecting data for 5 to 7 years. During runoff events they will collect water samples and measure suspended solids and nutrients. Once a sample is collected it is refrigerated to just above freezing so the water chemistry doesn't change from the time of sample to the time it is analyzed. Since the boxes have been installed, one runoff event has been sampled. ■



Want to see the watershed better?
Explore this map at lakeredstonepd.org.



Edge of field monitoring equipment set up at Daugs Road in Juneau County.



Site installation at Daugs Road. From left: Matt Komiskey, Brian Goepfert, and Dustin Ladd.

Lake Redstone

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Progressive Community

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LAKE REDSTONE PROTECTION DISTRICT

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lakeredstonepd.org

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our website:



*Protecting and rehabilitating the water quality of Lake Redstone
for its residents and the public.*

Chairman: Mike Mittelstadt ■ mbmittelstadt@gmail.com

Secretary: Ken Keegstra ■ ken.keegstra@gmail.com

Treasurer: Glen Choroszy ■ ChoroszyG@firstweber.com

Commissioner: Al Baade ■ albaade@mwt.net

Commissioner: Paul Burke ■ paul.burke@sbcglobal.net

LaValle Town Representative: Ray Demaskie ■ raydemaskie@townoflavallo.us

Sauk County Representative: John Dietz ■ JDietz@co.sauk.wi.us

BOARD MEETINGS are monthly at 6 p.m. on the second Tuesday
at the La Valle Town Hall on 324 Highway 33

Agendas are posted at:

- The La Valle Post Office
- The Town of La Valle Hall
- Hartje's Travel Center, Market & Hardware in La Valle

NAMEPLATE AND MASTHEAD PHOTOS: TOM WALTERS