

## Lake Redstone Protection District-2023 Year in Review

The most important activities since the 2022 Annual Meeting have focused on implementation of the Lake Management Plan (LMP), also known as a 9-key element plan. After several years of work on this plan, the Lake Redstone Protection District (LRPD) received final approval from the Wisconsin Department of Natural Resources (WDNR) and the US Environmental Protection Agency in February of 2022. The plan will be used to guide management activities over the next 10 years, with the long-range goal of improving water quality in Lake Redstone. The plan is a massive document with more than 100 pages of text, figures, and tables plus another 100 pages of appendices. The complete plan, including all 9 appendices, is available on the LRPD website at <https://www.lakeredstonepd.org/>. While we don't expect people to read the entire plan, we recommend reviewing the executive summary. Additional details regarding the 10-year LMP were summarized in the 2022 Year in Review; it is available on the LRPD website.

To implement the LMP, the LRPD board has divided the various tasks outlined in the plan among 4 committees-- two standing committees described in our by-laws and two new *ad hoc* committees. The two existing committees are the **Water Quality Projects Committee** and the **Sediment Control Committee**. The two new committees are the *ad hoc* **Education & Outreach Committee** and the *ad hoc* **Plan Integration Committee**. Each of the committees is headed by a member of the LRPD board but all are populated primarily by volunteers who are essential to the committee's activities. The activities of each committee over the past year are summarized below.

The **Sediment Control Committee** is charged with monitoring and reducing sediment entry into the lake and maintenance of previous sediment control projects. The current chair is Pat Sullivan. One activity that began before the LMP was approved was to create a system to inspect, and maintain as needed, the existing sediment control devices. The system involves annual inspection of each existing device including taking photos that are entered into an electronic database so that trends can be identified.

One important activity during the past year was to secure funding to implement repairs to a weir above Martin-Meadowlark Bay that was damaged in the 2018 floods. The LRPD applied to the surface water grants program of the WDNR last fall and this spring received notice of an award. Because of the size and cost of this project, additional funding was secured from the Sauk County grants program. Again because of the cost of the project, the repairs will not be performed until the summer of 2024. Design plans have been prepared and the expectation is that bids for performing the project will be sought either this fall or early in 2024.

Finally, the sediment control committee has initiated plans to address sediment issues at other locations around the lake and in the watershed. One particularly important location is an area near the tip of the south arm of Chickadee Bay, an area that has experienced serious sediment entry into the lake in the past. Further planning and discussion is needed before any new sediment control devices can be installed at this location.

The **Water Quality Projects Committee** is charged with issues related to aquatic plant management, lake monitoring and other projects intended to improve water quality. The current chair is Ken Keegstra. One important activity was updating of the district's Aquatic Plant Management Plan (APMP). The previous 5-year plan was prepared in 2014 and approved by the WDNR in 2015. The LRPD secured funding from the surface water grants program at the WDNR to support updating of the plan. The process was headed by Sara Hatleli from Aquatic Plant & Habitat Services, LLC, and involved several steps including performing a Point Intercept survey of the plant populations in Lake Redstone, holding a public hearing, and soliciting input on a draft plan. The updated plan was approved by the WDNR in May and is now available on the LRPD website.

Volunteers continue to monitor various parameters associated with water quality in Lake Redstone. Monthly from April thru October, volunteers measure water clarity with a Secchi disk, measure oxygen levels throughout the water column, and collect water samples for laboratory analysis of total phosphorus and chlorophyll (summer months only). Some of the long-term trends resulting from these measurements will be presented at the Annual Meeting.

**Ad hoc Education & Outreach Committee:** The Education & Outreach Committee is responsible for planning and implementing education and outreach activities identified in the LMP. The current chair is Brad Horner. One major activity planned and implemented by the E&O committee was the **"Take a stake in your lake"** workshop that was held on June 3, 2023. The event had about a dozen tables and exhibits covering a range of topics plus activities for children and several attractive door prizes. One popular exhibit was the rainfall simulator, which compares various ground cover regimes during a rain event and dramatically demonstrates the value of native plants near the shoreline.

The E&O committee joined forces with Producers of the Lake Redstone Watershed to sponsor a joint field day in September of 2022 (see the photos on the Facebook page of the *Producers of the Lake Redstone Watershed*). The field day was a great success that included demonstrations of sowing cover crops with a drone plus tours of Lake Redstone to demonstrate the process of water sampling.

Finally, the E&O committee has taken over responsibility for preparation and production of the annual newsletter, The Protection Connection.

The *ad hoc* **Plan Integration Committee**: The Plan Integration Committee is responsible for planning, coordination, and monitoring tasks in the LMP that involve multiple committees. The current chair is Mike Mittelstadt. One of the first tasks was to establish a system for tracking progress toward meeting the milestones associated with implementation of the LMP. The LRPD board holds special meetings twice a year to monitor and discuss progress.

With the assistance of Mitch McCarthy from Sauk County Department of Land Resources and Environment, the LRPD has set up a system to perform transect surveys in the watershed. Twice each year, a team of volunteers spend a day following a specified route through the watershed to monitor agricultural practices in specific fields. They track progress in implementing sustainable agricultural practices such as the adoption no-till cropping systems, the use of cover crops, etc. The goal is to encourage producers in the watershed to increase the use of such sustainable agricultural practices over the next decade.

Over the past three years, the LRPD has partnered with staff from the US Geological Survey (USGS) to measure the quantities of phosphorus and sediment that enter Lake Redstone via the two major inlet streams. These efforts have been supported in large part with grant funds from Sauk County Department of Land Resources and Environment plus cost sharing from the USGS and from Juneau County Department of Land and Water Resources. The results to date will be presented at the Annual Meeting along with strategies to seek improvement during the next 10 years of implementation of the LMP.

The LRPD is always seeking additional **volunteers** to assist with the implementation of the LMP. Whether your skills and interests lie in lake biology, shoreline protection, electronic or written communications, or organizing paper or electronic files, we welcome anyone who is willing to help with District activities. If you are interested in joining one of the committees described above, or participating in other efforts, please contact any board member or email us at [lrpd.board@gmail.com](mailto:lrpd.board@gmail.com).

KK/7.24.2023