LAKE REDSTONE PROTECTION DISTRICT

Special Board Meeting, Tuesday, October 27, 2020 @ 10:00 am

The meeting was held virtually via Zoom

Discuss and take possible action on the following items.

Minutes

1. Call meeting to order, verify compliance with the Open Meeting Law

The meeting was called to order at 10:05 am. The meeting was in compliance with open meeting laws.

2. Introductions

The following people were in attendance and briefly introduced themselves: Mike Mittelstadt (LRPD), Ken Keegstra (LRPD), Paul Burke (LPRD), Pat Sullivan (LPRD), Brad Horner (LRPD), Chuck Ecklund (LRPD), Al Baade (LRPD), Tom Wagner (LRPD), Tom Walters (LRPD), Ken Kidd (LRPD), Jon Field (Juneau County), Dustin Ladd (Juneau County), Serge Koenig (Sauk County), Dave Blumer (LEAPS), Wes Matthews (WDNR), Andrew Craig (WDNR), Nate Nye (WDNR), Jeff Schure (WDNR), Susan Graham (WDNR), Geeg Drum (joined late)

3. Approval of Agenda

Keegstra made a motion to approve the agenda, seconded by Burke. Motion approved.

4. Discussion with representatives from WDNR, Juneau Co., and Sauk Co. regarding the following issues/questions (but not limited to them):

A. Brief review of activities since the last meeting (15 minutes)-Mike Mittelstadt

Mittelstadt reviewed some of the major activities during the past year. First was completion of the dredging project in December of 2019. 104,000 cubic yards of sediment was removed from the lake at a total cost of $3.5 million. Work is continuing on project close out, which hopefully will be completed in the coming months. The district also made repairs to the berm at Meronek Meadows that was damaged in the 2018 flood. A new design was used that involved 3 rows of rock gabions that should not wash out in the next major flood. Mittelstadt mentioned the three grants from Sauk County and thanked them for initiating the grant program and asked them to continue it in the future. He also mentioned the CBCW program and the work on the lake management plan which will be discussed in more detail later in the meeting.

B. Whole Lake Management Plan (~ 60 minutes)

The Lake Redstone Protection District has WDNR grants to support the preparation of a whole lake management plan via the development of a 9-Key Element plan for Lake Redstone and its watershed.

1. **Gathering data on the current state of affairs-Ken Keegstra**
   a. **Aquatic plant monitoring and control**
      The LRPD developed an aquatic plant management plan in 2015 and has been following this plan over the past few years. Keegstra briefly reviewed the plant monitoring and control activities from the previous few years. Point intercept surveys were performed in 13 bays before and after dredging in an effort to measure the impact of dredging on plant life in Lake Redstone. No control activities were performed in 2019 or 2020.
   b. **Monitoring the quality of lake water-unchanged over the past few years**

The LRPD has monitored the quality of lake water for approximately 20 years. Monitoring efforts have continued as part of the development of the lake management plan. The data are all present in the SWIMS database. The quality of the water in Lake Redstone has not changed much in the past 20 years.

c. **Monitoring the inlet streams-most sediment and nutrients enters during storms**
Stream monitoring during the past few years established that most of the sediment and nutrients that enters the lake from the watershed comes during storm events. In order to quantify this, storm events will be monitored in more detail in the coming year. See B.3.c for more details.

d. **Shoreline habitat assessment-what is it and what was learned from it?**
A shoreline habitat assessment was one of the activities performed as part of the lake management planning process. The report provides an assessment of 784 parcels around the lake, evaluating each parcel on 7 different parameters. The whole lake summary identified 214 parcels that were high priority for shoreline improvements, 209 parcels that were moderate priority for improvement, 69 parcels that were low priority and 292 parcels that revealed no concerns. Dave Blumer from LEAPS provided a map that estimated the amount of nutrients entering the lake from these areas along with the reductions that could be achieved with shoreline improvements. Keegstra asked for suggestions of how the district should proceed to address the issues raised by the shoreline habitat assessment.

2. **Plan preparation-Data analysis and preparation of management objectives-Dave Blumer**
Dave Blumer and Andrew Craig provided an update on the status of plan preparation. The Lake Redstone watershed has been divided into 7 sub-watersheds. An evaluation of the agricultural land in the watershed identified areas where crop rotation was being practiced and areas of erosion vulnerability. Blumer used data from the WDNR to identify the gullies in the vicinity of Lake Redstone that drain into the lake. Craig explained the STEPL (Spreadsheet To Estimate Pollutant Loads) modeling process that will be used to estimate the amount of nitrogen and phosphorus that are coming into the lake from each sub-watershed. Craig and Blumer briefly summarized the calculations that need to be completed to generate the 9-key element plan. This will include defining short-term, medium-term, and long-term objectives to be achieved during the implementation of the plan. Craig said that the plan will cover a period of 10 years with milestones that should be accomplished along the way. The plan will include monitoring activities to evaluate progress.
Blumer requested that the LRPD request a 6-month no-cost extension so that the plan could be completed in the first few months of 2021. Sue Graham said that this was possible and described what was needed to make such a request. It was agreed that a decision on this request would be put on the agenda of the November board meeting.

3. **Likely activities described in the plan**

a. **Update the 2015 Aquatic Plant Management Plan**
Because the current aquatic plant management plan is 5 years old, it needs to be updated in the near future. Sue Graham reviewed the activities that need to be performed when updating the plan. Given that the LRPD is in the middle of preparing a lake management plan, Graham said that it was OK to delay updating

the plant management plan, but she advised that the district should not delay too long.

b. Improving the shoreline on high priority properties

Keegstra explained that the district is considering a series of seminars to educate property owners to the options for improving their shoreline. He inquired whether DNR or county staff would consider making presentations at such seminars. Serge Koenig said that he would be willing to participate in such events.

c. Monitoring the inlet streams during storm events-Keegan Johnson

Johnson described the system that the US Geological Survey (USGS) is setting up to monitor the sediment and nutrients in the inlet streams during the coming year, especially during storm events. Briefly automated samplers will collect multiple water samples at both the east and west branches of Big Creek during each storm. The outlet stream will still need to sampled manually. The samples will be analyzed for total suspended solids and total phosphorus. From these analyses, along with flow measurements that are being made by flow monitors that have been in place for the last year, the USGS will be able to calculate the load entering the lake from Big Creek during the coming year. Johnson mentioned that he should be able to calibrate the STEPL model with real data, an idea that Craig liked.

d. Other activities that should be in the plan?

Blumer and Craig presented a summary of other activities that will likely be included in the completed lake management plan. This includes monitoring activities to evaluate progress.

C. Controlling sediment entry into Lake Redstone (30 minutes)-Pat Sullivan

1**. Sediment from the watershed that enters the lake via streams**

a. Update from Dustin Ladd on the producer-led cooperative within the watershed

Ladd provided a brief summary of producer activities from the last year. Cover crops were planted on 1800 acres in the watershed in the past year, with 500 acres using cost sharing from the grant secured by the group. In addition, the group continues to operate the edge-of-field monitoring stations that monitor the quantities of runoff during storm events. Ladd said that one entire farm of 700 acres was converted to grassland for grazing cattle.

b. Update from Serge Koenig on activities within Sauk County

Koenig gave a brief review of his efforts to expand the conversion of land currently used for row crops to grassland.

2. Local runoff that enters at gullies around the lake during rain events

a. There are several locations where water and sediment enter the lake during rain events. What strategies exist for dealing with such locations? How can the LRPD partner with local property owners, the Town of La Valle, and Sauk County to address these locations?

Sullivan described the efforts of the sediment control committee to identify areas around the lake that need attention. He mentioned the areas in north and south Chickadee bay and some issues in the vicinity of Eagle bay. The problems arise during storm events when a significant quantity of rain falls in a short period of time. Serge Koenig commented that he deals with these types of problems regularly and advised that the solutions should not involve basins and diversions. They will ultimately fail when the storm is large enough. Rather he believes that the solution is to pay attention

to the water cycle and develop strategies that allow the water to soak into the ground before it starts to run downhill. This will require cooperation with property owners in the land upstream from the lake.

D. Lake Redstone Fish Survey

Nate Nye from the WDNR was asked about the fish survey that was supposed to take place in Lake Redstone in 2020. He responded that it had to be postponed because of the COVID pandemic. He also indicated that the DNR had already committed to perform survey work elsewhere next summer because of projects with funding deadlines. Thus, it will be the summer of 2022 before the survey work is done in Lake Redstone. This delay may have some benefits. For example, most fish species are not effectively measured in the survey until they are 3 years old, so the delay will allow an evaluation of the dredging on the various fish species to see if there is a gap in the age distribution. It may also provide a better evaluation of the success of the walleye stocking that is being done by the Lake Redstone Fishing Club.

5. Next LRPD board meeting: November 10, 2020, 6 pm at La Valle Town Hall

6. Adjourn

The meeting was adjourned at 12:05 pm.

KK 11/2/20