

Spring Lake - Lake Board
Meeting Minutes
April 20, 2022

Meeting called to order by Chair, John Nash at 3:30 pm.

Additions/Corrections to the Agenda: Fruitport Charter Township assessments added as discussion item

Members Present: John Nash, Joe Bush, Roger Bergman, Samantha Verplank, and Brenda Moore

Members Absent: Mike Rolf, Vance Meyer, Dave Split, Roger Vanderstelt

Also Present: Tony Groves, Progressive AE

No public in attendance

Treasure's Report: Treasurer Joe Bush presented a financial report that indicated a fund balance of \$129,499.55 as of April 20, 2022. Bush commented that the current fund balance appeared low and Groves noted he had talked with the Treasurer of Fruitport Charter Township and that the township has not collected assessments for the last 2 assessment cycles and that would explain the shortfall. Groves explained that the township was agreeable to placing the full three-year assessment for the current project on this December's tax bill and that a letter would be sent out (possibly with the township's summer tax bill) explaining the situation and informing property owners in the special assessment district that the full assessment for the current three-year project amount would be levied on the 2022 winter tax bill. Board was unanimously in favor of this approach but indicated inquiries from Fruitport property owners regarding the special assessment should be made to the township, not the Spring Lake – Lake Board.

Consultant's Report:

Handouts: 2021 – 2023 budget, 2021 water quality data and historical summary, concentrated animal feed operation (CAFO) map, Wisconsin Lakes Partnership publication entitled: The 500 lbs. of Algae Adage...Where did it come from?

Budget: Groves provided a copy of the current budget and noted that this is the second year of a three-year project and that the annual budget for the project is \$150,000. Next year, the lake board will need to consider a new project scope and budget and schedule public hearings for the continuation of the project.

Water Quality: Groves provided a copy of the 2021 water quality sampling results and noted that samples have been collected on an annual basis from 7 locations in Spring Lake since the project began in 1999. Thus, there is a wealth of data available on the lake. Of particular concern is the amount of phosphorus, the nutrient that stimulates algae growth in the lake. In recent years, phosphorus levels have begun to increase, especially in the bottom waters of the deepest basins of the lake. In 2021, algae growth in the lake based on chlorophyll *a* levels was above the eutrophic threshold and water transparency in summer measured with a Secchi disk was only about 2.5 feet.

The alum treatment of Spring Lake was conducted in 2005 to mitigate phosphorus release from the deep water sediments in Spring Lake (> 15 feet). This is called "internal loading" of phosphorus. Recent water quality data indicate that the effects of the alum treatment may be beginning to wane. This is not unexpected in that the alum treatment was conducted 17 years ago and was expected to improve water quality conditions for only a 5 to 10 year period.

Alum Treatment: Nearby Mona Lake had an alum treatment conducted in 2021 and follow-up treatments are planned for this year and next. In Mona Lake, one-half of the alum dose was applied in 2021 and 25% of the dose will be applied this year and next. Only a portion of the lake was treated (about 150 acres of the 700-acre lake) and the project is being funded without a special assessment district. Initial results of the alum treatment appear promising.

Given that the alum treatment of Spring Lake was conducted 17 years ago and measurements of sediment phosphorus release in Spring Lake have not been conducted since 2016, Groves recommended that additional sediment cores be collected from the deep lake basin and analyzed to evaluate mobile phosphorus fractions and rates of internal phosphorus loading. This data would be used to evaluate if another alum treatment of Spring Lake is warranted, an alum dose rate, and what a treatment may cost. This work would be conducted by a specialized laboratory for a cost not to exceed \$25,000. Roll call vote was taken and the recommendation to conduct a sediment core study was unanimously approved.

Lake Overcrowding: Samantha Verplank noted that boat use on Spring Lake has increased in recent years and often boaters ignore boating rules and operate in a reckless manner. Lack of enforcement of existing rules appears to be a problem. John Nash noted that boat use is not an issue the lake board has authority to address, but he would check to see how many boating citations were issued on Spring Lake in 2021.

Watershed Management: Most of the lake board's watershed focus to date has been on the developed shoreland areas around Spring Lake. The lake board has conducted several mailings and provided guidance on lakeside landscaping practices, lake-safe fertilizers, and preservation of natural shoreline areas. Much of this information is posted on the Spring Lake – Lake Board website. Based on the results of the 2018 GVSU Phosphorus Monitoring/External Loading study, Norris Creek appears to be a significant source of phosphorus loading to Spring Lake and, in addition to the use of alum to reduce internal loading, external sources need to be considered as well. One concern that the lake board discussed previously was the possibility that concentrated animal feed operations (CAFO's) exist in the watershed. However, upon further evaluation, the CAFO's in question are in the Crockery Creek watershed and do not drain directly to Spring Lake. Despite the fact there are no CAFO's in the Spring Lake watershed, creek monitoring conducted as part of the 2018 GVSU study indicate that farmlands in the upper watershed of Spring Lake are a significant source of phosphorus especially during storm events. Brenda Moore indicated that her office has implemented several drain projects to stabilize eroding streambanks in the upper watershed but she felt more could be done. Brenda suggested that a partnership with the lake board be considered as part of a long-term nutrient abatement plan. Brenda will provide information on what drain improvements have been completed in the upper watershed to date. Watershed management will be a topic of discussion at the next lake board meeting.

Information and Education: Updated information regarding lake water quality, aquatic plant control, and ongoing lake board activities is posted annually on the Spring Lake – Lake Board website (www.springlakeboard.org). The website will continue to be updated as new information becomes available.

Meeting adjourned at 5:00 pm.