

Crockery Lake Association Board Meeting
Forest Shelter
Grose Park
July 15, 2020

1. Meeting called to order 7:01 p.m.

Guests: Jaimee Conroy Desjardins, Mike Dunnuck, Chuck and Linda Lane, Callie Melton, Gary Meerman, Karl Wolters

2. Roll Call: Bob Blauwkamp, President; Pat Wolters, Vice President Susan McClure, Secretary; Greg Slater, Treasurer; Carl Elliott, Paula Humphrey, Betsy Ludwick. Absent: Molly Gaggin.

3. Approval of the Agenda

The Agenda was approved with the following additions: Riparian high water article; Sharing door-to- experience; newsletter approval. Pat Wolters moved, Betsy Ludwick seconded. Passed.

4. Speaker Jaimee Conroy Desjardins, Environmental Scientist, Professional Lake Management.

Desjardins focused on Crockery Lake's on going algae bloom and what might be done. She described the algae that is in Crockery Lake as looking like split pea soup. What we are seeing is tiny particles or strands of filament that are suspended in the water column, not the slimy green "cotton" that gets stuck on lily pads. It is aphanizomenon, a type of planktonic blue-green algae. The blue-green algae is toxic if it is ingested or inhaled. People cannot swim in it. In the Spring the primary algae is green filamentous algae.

The 2020 algae growth started earlier because of warmer temperatures and dry conditions. It is nutrient fed. Given the high water table right now, wetlands are at capacity and cannot filter the run off nutrients before they enter Crockery Lake. The Crockery Lake watershed is high in nutrients which is why the area is attractive for agriculture. Thus, the sediment coming into the lake is naturally rich in phosphorus. The phosphorus sinks to the bottom of the lake and rises as the lake water warms. A combination of phosphorus to feed the algae and sunlight nearer the surface stimulates algae growth.

Desjardins compared data from Crockery Lake with data compiled by Michigan Lakes and Streams in 2019 in regards to nutrient loading. The average phosphorus in lakes state wide is 14.9; Crockery Lake's is 100. In the Summer the average for Michigan lakes is 12.8; Crockery Lake's average is 29. The water clarity for the average lake is 12.8 feet. Crockery Lake's average clarity is 3.7 feet. (In early July 2020 clarity depth has been hovering around 18 inches.) Chlorophyll measurement averages 9.9 in Crockery Lake and 3.4 statewide. EGLE and Ottawa County Health Department took algae samples of Crockery Lake water three times between mid-June and mid-July. None tested toxic. County governments monitor lakes that are closed due to toxic algae.

Desjardins summarized the two different applications done prior to the July 4 celebration. One was SeClear G which includes lanthanum which strips phosphorus from the lake bottom and water columns but there must be two weeks between SeClear G treatments. The treatment just prior to the July 4th weekend was PhosLock which can be repeated within

two weeks if necessary. PhosLock uses aluminum sulfate to remove phosphates by combining with the phosphates to form heavier particles "known as floc." Phoslock can be applied in inlets and in deep water columns as needed, or reapplied in shorter than two week intervals unlike SeClear G. However, any product using alum needs ongoing water testing because alum can alter a lake's pH. The cost ranges between \$75,000 to \$100,000 to seal the lake bottom. (Morrison Lake expects all phosphate to be stripped out in five treatments over three years time.) However, as long as nutrient bearing sediment enters the lake treatments will need to be on-going. Three treatments a year can cost between \$60,000 and \$80,000. PhosLock needs less permitting. Another removal method is dredging which is "astronomically expensive," according to Desjardins.

The amount of phosphate in the water affects its quality. Michigan's ban on phosphate fertilizers has helped reduce the load, but any organic material adds phosphates, which is why it is crucial not to blow grass clippings or leaves into the lake. The slow turnover of water in Crockery Lake causes sediment to settle to the bottom, making the lake a settling pond for phosphate. Using an aluminum product needs permitting and continual treatment as the phosphate continues to enter the lake via inlets. On-going water testing of treated water is also needed. Betsy Ludwick asked about the effect of PhosLock on fish. Desjardins said that PhosLock has been approved for use with aquatic life.

A discussion among those present shifted to drain fields and sewers. Pat Wolters said that there have been five feasibility studies and five failed petitions. From 24th Avenue to the west end of the lake, the soil is not suitable for drain fields. Linda Lane reported that Montcalm County has an ordinance requiring septic tanks be pumped every five year (Betsy Ludwick reminded us that Kerstra give lake residents a 15% discount.) Paula Humphrey asked and Chuck Land responded that year round residency has risen from 40% to 90%, which makes an impact on the drain fields. Desjardins noted that some lakes have developed settling ponds that inlet streams pass through before the streams reach the lake. Around Crockery Lake the decreasing watershed coupled with the high water table this year decreases the amount of filtering that the incoming water needs. The Conservation District could help identify what is in the Crockery Lake watershed. Greg Slater wondered if the phosphate impact was caused internally by lake residents or externally by nutrient rich water entering via inlets. Gary Meerman said the Township and County are involved in two circumstances--point of sale or by complaint.

One point to be considered is how much phosphorus is in the lake and how much is coming in the five inlets. This testing can be done by residents with the water testing equipment the Association owns. We need samples from each inlet and from the water below the thermocline in the deepest part of the lake (but not from the bottom of the lake). Then the samples must be taken to the water testing laboratory within 48 hours of collection. Otherwise a reagent must be used. Desjardins urged the sample gathering be done now, plus gathering a sample from the surface.

Carl Elliott said that he googled "control algae" and found a link to LG SONIC which provided a telephone number. The person answering told him about using ultrasound waves that run on solar power buoys. The ultrasonic waves prevent the algae from coming to the surface where it can photosynthesize. The expense was estimated to be \$16,000 and to work for ten years. Desjardins had not heard of the method. She did say that duck weed is a plant that takes up nutrients and requires no maintenance. Elliott also noted that recent PLM treatments have not been as successful, citing the lack of a white deposit on the rocks/ He

also thought that the treatment color was less blue. Desjardins said that the treatment solution has remained the same.

Bob Blauwkamp thanked Desjardins for coming to the Board Meeting.

5. Secretary's Report: Susan McClure handed out paper copies of the March 9, 2020, minutes which had been approved on line. (There were no meetings in April or May due to the Covid 19 pandemic.) The June 17, 2020, minutes were approved with a correction to #4--Betsy Ludwick pointed out there is no "e" as the end of Nicol Gustin's name; #10-Carl Elliott pointed out that the 2021 Fireworks Display will cost \$750 more than the 2020 display; #14--Election of Officers should be Election of Board Members (officers are elected by the Board Members at the Reorganization Meeting which immediately follows the Annual Meeting). The corrections were so noted. Carl moved to accept; Betsy seconded. Passed.

6. Treasurer's Report: Greg Slater reported that dues collected in 2020 total \$595, or seventeen residences have joined the Crockery Lake Association. Wolverine has not sent an invoice for the July 3, 2020, show to the CLA as of July 17. Nicol and Lesha Gusin donated \$510 for the 2021 Fireworks Display, the profits from the 2020 Fireworks Celebration tee shirt sale. Two people have used PayPal. We will evaluate the use of PayPal at a later meeting. The bank balance is \$7,711.52. The July Treasurer's Report will show amounts collected for dues, fireworks, and candles. Paula Humphrey moved to accept; Betsy Ludwick seconded. Passed.

7. Fireworks 2021 Update: Forming a Fireworks Display Committee was discussed. There are a number of steps to be accomplished, which include raising money, contacting Wolverine (the fireworks vendor), processing the permit paperwork, corresponding with Township and Fire Department, meeting with Gunkels, preparing the site before the display and cleaning up the site the following morning, writing thank-you notes, and sending a donation to the Rosel Memorial Fund. Bob Blauwkamp proposed having a point person. Greg Slater suggested getting more residents involved.

8. Additions to the Agenda:

Paula Humphrey cited an article in the Riparian (Summer 2020, p. 34) that discusses a township that has a high water-no wake ordinance that lasts for fourteen days. Paula will find out what process is needed to get such an ordinance for Crockery lake. She will also investigate about creating and posting appropriate signs.

Susan McClure reported concerns she heard as she was asking for dues and donations. High wakes are a concern; general consensus is that high wakes are caused by boats that are too big for a lake a mile long and a quarter mile wide. Another couple suggested no wakes shortly before dusk, thus making fishing from shore more enjoyable. Chuck Lane noted that no wake times are regulated by the State. Residents near the "boat landing" or street end (25th Avenue) continue to have parking problems. Susan suggested calling the Sheriff's Department, especially before July 3. Other people appreciated the Board's efforts to organize the fireworks display and to monitor lake water quality.

Betsy Ludwick asked for advice about newsletter content. She had included a note about the number of speed boats and pontoons. Carl Elliott thought the information was intrusive; Susan McClure thought the information was interesting, guessing the increase in

pontoons reflects the growing age of the residents. Carl moved the boat number be omitted; Greg Slater seconded. Passed.

Some Board Members questioned including water clarity of Crockery Lake and Camp Lake because it sounds like a hidden agenda. However, water clarity in Crockery lake is needed data if residents are to make informed decisions about lake treatments and the eutrophic status of the lake. There was no consensus or motion to omit water clarity figures.

There was consensus to form a committee to look into affordable testing of nutrient load in streams. Callie Melton suggested Ben Jordan of the Conservation District again. The Drain Commissioner's Office should know of resources. Carl Elliott said that MSU does water testing. Michigan Lake and Streams does testing too. Susan McClure volunteered to call sources to learn about water testing.

Meeting Adjourned at 9:33.

Next Meeting
August 19, 2020
7 p.m.
Betsy Ludwick,