Colon Township Advisory Lake Board Meeting Minutes
September 10, 2022
Colon Township Hall, Colon MI

Call to Order: Chairman Tim Taylor Called the meeting to order at 9:00 a.m.

Roll Call:
Advisory Committee Present: E. Bell, J. Borgert, P. Camper, G. Costello, J., Crawford, G. Leroque, R. Gentz, T. Taylor & T. Tenney
Board Members Present: E. Bell, J. Borgert, J. Crawford, & T. Tenney
Also Present: Andy Tomaszewski (PLM) & Paul Hausler (Progressive AE)

Approval of Minutes: T. Tenney moved to approve the minutes with one correction, E. coli numbers on Long Lake at the South end & Steinke Resort were each at 20.0 not 4.0. E. Bell – Second – Motion Carried.

Lake Conditions:

Fishing: Slow in most areas, however, fishing on both Long & Palmer Lake has been good around the cribs.
Water Clarity: T. Tenney reported the following from the 8/23/22 E. coli water sampling. Beach 1.5', Dam 1.5', Lake Street 1.75', Mid Channel 1.75', & LS Creek 1.5'. J. Crawford reported that on 9/9/22 he had a Secchi disc reading of 2.0'. J. Borgert reported Long Lake at 3.0'
Stumps & Logs: They are still there!
E. coli: T. Tenney reported the following from the 8/23/22 sampling: Beach 7.5, Dam 11.8, Lake St. 106.3, Mid Channel 101.7, LSC Inlet 186.0, Long Lake Bridge 9.6, Decker Bridge 209.9, Hagelgans Rd. 185.0, Lindley Rd. 344.3, Outwater Rd. 191.8, M-86 Bridge 290.9, Langwell Rd. East of Babcock Rd. 344.8.
Zooplankton Report: The following is an email from G. Leroque on Zooplankton in Palmer Lake.

"I recently took zooplankton samples from Palmer Lake. As you know, zooplankton are composed of small animals and animal-like organisms including hydra, rotifers Protozoa and micro crustaceans. This report focuses on micro crustaceans as they are the main staple of most juvenile fish. They are represented by two main groups: cladocerans (Daphnia) and copepods (Cyclops). Both feeds primarily on planktonic algae. The phytoplankton (algae) in our lakes are comprised mainly of Cyanobacteria (Blue-green) and diatoms (Brown algae)."

"It was a concern of Dr. Jude that our lakes are nearly devoid of larger bodied Daphnia. The samples I have taken in the years following his report confirm this. I have found we have a good population of small copepods and some very small species of Daphnia. Also present are numerous insect larvae, mostly midge larva, both beneficial to fry and fingerlings. I have read some recently published articles about this topic. It seems this is a worldwide issue only recently being studied. They find that when a eutrophic lake becomes dominated by blue-green algae, the zooplankton community

changes to small species. It is hypothesized that large Daphnia will not consume blue-green algae, however small species can adapt to them. Our situation is compounded by the fact that the fry of gizzard shad eat mostly micro crustaceans. In all of the papers there was a corresponding discussion about phosphorous indicating that it was the main cause of this situation, and all suggested this should be addressed especially the effect of nonpoint sources (watershed). This leads me to believe the steps we have taken and those proposed are on the right track."

"So what is the significance of all this babble? Frankly I don' know. It is a confirmation of what we all know; our lakes need help, which brings me to comment that I have never been associated with a more legitimately concerned, capable and professional group that ours."

G. Leroque added that our main issues are phosphorus, gizzard shad, & water coming into our lakes from the watershed.

Lily Pad Treatment: A. Tomaszewski (PLM) stated that they could treat the lily pad areas on Tuesday, September 13th if that was still in the planning. Areas to be treated are near the long docks on the east side of the channel along Walters Trail & North of the trailer park on Long Lake Rd. J. Crawford moved to permit PLM to treat the area of the long dock on the channel for access & existing access in the channel for access to the lake. Second – E. Bell – Motion carried. G. Costello suggested that individuals in the areas of the access lanes must use them or they will close over in time.

Progressive AE: P. Hausler of Progressive AE reported.

Water Quality Data:

Phosphorus is higher in both Palmer & Long Lake than it has been in the past three years, with Palmer Lake is in the high 50's & Long Lake in the low 60's

Chlorophyll-a concentrations is higher in both Palmer Lake & Long Lake than it has been in the past four years, with Palmer Lake at 17 & Long Lake at 53.

Secchi Transparency Measurements at 2.0' for Palmer & 2.5' for Long Lake.

Percent of Bio-Volume Maps (Plane percentage that occupy the water column) form 2016 – 2022. Over time a little more growth on Long Lake and, in 2022, seeing more deeper growth of plants, Naiads, in the 10' to 15'range, however, this is not a significant increase of growth. Starry Stonewort is down in Palmer Lake from 2021 & was found in Long Lake for the first time in 2022.

Other information: Michigan Inland Lakes Convention – Online three-day virtual conference. Deadline for registration is Sunday, September 11th. DNR on Friday, September 16th will be giving a presentation on wake boats, which has been in development over the last five years. The Michigan legislature is reviewing a potential act that would allow for water management boards, which would allow for a Water Management District (watershed). Drain commissioners and representatives from each of conjoining municipalities would have the authority to assess the people in the watershed for water/watershed projects.

Phoslock Evaluation Summary 2022: A. Tomaszewski (PLM) reported:

Long Lake was treated on four dates:

6/17 TP Pre Treatment 23 TP Post Treatment 10
7/15 TP Pre Treatment 18 TP Post Treatment 13
8/11 TP Pre Treatment 10 TP Post Treatment 10
8/19 TP Pre Treatment 81 TP Post Treatment 74

Andy Tomaszewski did not have an answer for the 8/19 high phosphorus reading other that the possibility of a weather-related incident or a large release of phosphorus into the watershed.
J. Borgert questioned the depth of the water sampling taken. He had requested that the sample be taken at the thermal cline. A. Tomaszewski responded that all sampling was done at elbow depth.
Conclusion: The following is the printed conclusion from PLM on the overall effectiveness of the Phoslock treatments.

> "*Although phosphorus reduction did occur with each treatment, no significant changes were observed in regard to water clarity and/or algae reduction. Phosphorus levels post treatments on 6/17, 7/15 and 8/11 were as low as we typically see on lakes that have little to no algae problems and good water clarity. It is likely that the particular algae type on Long Lake is not specifically phosphorus driven. Based on what we have seen in the 2022 season, we feel hesitant about recommending a continuation with treatments."*

G. Leroque questioned the conclusion in terms that if phosphorus is not the source of the algae in Long Lake what is? What are the alternatives? A. Tomaszewski referenced Morison Lake, which has a high level of blue-green algae and Long Lake is a brown algae. As such he felt that maybe the algae in Long Lake may be being driven by nitrogen. When tested in the spring the nitrogen levels were between 1300 and 1700 whereas most lakes, they survey, are 230. This lead to the concept that nitrogen coming from your watershed is significantly higher.
J. Borgert felt that there was a significant drop of phosphorus level but wonder how long it lasted? A. Tomaszewski stated in a lake that does not have the rate of water flow, that Long Lake does, it might have lasted a couple of weeks but with the rate of flow in Long Lake only a couple of days. J. Borgert questioned the fact that since Phoslock does block release of phosphorus from the bottom would that generate less phosphorus? A. Tomaszewski stated yes but the greater rate of phosphorus flowing in from the watershed would negate that.
P. Hausler: The new product EutroSORB has been allowed trials by EGLE but those tests are being conducted on smaller ponds. He felt that potentially this product could be a cheaper option than Phoslock. A. Tomaszewski stated that theoretically it could be cheaper, but the price tag SePRO corporation is proposing is much higher than Phoslock. T. Tenney questioned the cost based on previous information that EutroSORB was less expensive. A. Tomaszewski based this price difference on SePRO using EutroSORB on a whole lake approach not just a spot treatment.

Other discussion:

- J. Borgert questioned that, since the clarity of Long Lake had not significantly improved because of water flow rates would we see different results in the Southeast end of Palmer Lake where there isn't a high flow rate? A. Tomaszewski stated was the only way to find out is to try it.

- G. Leroque asked if PLM labs have the capability to analyze the species of algae in our lakes? He suggested that this should be considered. Cost of each sample would run around $300.
- G. Costello broached the idea, already in play, of biological vs. chemical to control algae. Increase the number of walleyes to lower the number of gizzard shad. J. Borgert replied that EGLE already stocks flathead catfish along with walleye and that they would not approve of a larger concentration of predator fish.
- P. Hausler mentioned a large shallow lake that removed carp at a very high price tag.
- E. Bell stated that until we have control of what comes in from the watershed, we will continue to combat these issues.
- G. Costello questioned the use of agriculture products. J. Borgert replied that farmers are using less because of higher cost.
All the above are valid issues and concerns.

Motion to Adjourn:
T. Taylor moved to Adjourn at 10:22. Second – E. Bell. Motion carried

Respectfully submitted
Tom Tenney