ISLAND LAKE REPORT – SUMMER 2025

After several consecutive years extolling the excellence of Island Lake's water quality, for summer 2024 Mother Nature decided to show us who's really in charge of lake conditions. Most everyone noticed that the lake appeared murkier than usual this last summer. That's because we had an algae problem gifted by nature which was then exacerbated through faulty human action. Mea culpa.

Please forgive the depths of lake science jargon included in the following description, but it is necessary to fully explain what has happened/is happening with Island Lake. Lake biology is notoriously complex and the changing balance between competing forces can alter lake conditions significantly from one year to the next.

The starting place for the current discussion is 2011, when an engineering study of Island Lake conducted by the lake management company ProgressiveAE included the recommendation that we conduct a whole-lake treatment to eradicate the invasive Eurasian Milfoil. As per the recommendation, in 2012 we used a systemic herbicide throughout the lake that killed the milfoil through to its roots. While the treatment did indeed remove most of the milfoil, it also led to a huge algae bloom the remnants of which lasted several successive summers. Since that time, Island Lake has consistently seen abundant suspended (planktonic) algae clouding the water column during Spring months. By early June the large aquatic plants (e.g., eel grass, pond weed, milfoil, etc. – together referred to as macrophytes) ordinarily grow enough to take up available nutrients, out-compete the algae and thereby improve water clarity.

Our lake management practice has been to wait until the macrophytes grow sufficiently to clarify the water before conducting our first of three weed harvests. Then as needed, we address surfacing Eurasian Milfoil using a contact herbicide (i.e., an herbicide that kills only the part of the plant it comes in contact with). This approach has delivered excellent water quality for the past 8 or so years.

Enter 2024. June came and went with little discernible reduction in the turbidity (cloudiness) of the water. I requested that our current lake management company, LakePro, analyze the water to understand what was going on. LakePro reported, after a microscope inspection of a lake sample, that the suspended water particles were NOT algae, but likely other particulates from the abundant rain and resultant runoff we saw early in the season. LakePro has subsequently conceded that their assessment was in error.

Based upon the faulty analysis, and despite the fact that the water column was not yet clear, we went ahead with our usual practice of weed harvesting and then the subsequent use of a contact herbicide. What we unwittingly managed to do was to remove from the lake all of the natural forces competing with the abundant algal population and simultaneously added a nutrient load for the algae to consume – enabling the algae to proliferate even more. The resultant increased turbidity of the water limited further growth of macrophytes, thereby exacerbating the imbalance. The vicious cycle continued throughout the summer regardless of the fact that we cancelled the third weed harvesting.

I ultimately insisted that LakePro send out lake water samples to an external lab for testing. That lab confirmed the presence of blue/green algae. The good news is that there was no indication of toxicity (although there was cyanobacteria present, we did not experience a toxic bloom -- algae with a paint-like appearance, like pea soup, with a swampy odor). Nonetheless, we face a formidable task to get our lake's aquatic environment back into reasonable balance.

There are no easy ways to address a lake-wide planktonic algal bloom. I spent a good deal of time investigating the latest technologies in algae control. LakePro has recommended a whole-lake treatment with Meta-Floc, a chemical that removes nutrients (phosphorus) from the water and sediment. It's supposed to be non-biologic, meaning it would have no adverse biological impact on the plants or fish in the lake. But while this may be a fine approach for a small pond, the use of Meta-Floc for a lake our size is prohibitively expensive (exceeding one-quarter million dollars!). Further, in light of our previous experience with whole-lake treatments, we are aware and wary of unforeseen and undesirable impacts. So instead, we are going to attempt to leverage natural forces to resolve the problem.

Our approach next year will be markedly different from last summer's. We certainly won't be harvesting or applying an herbicide before we see water clarity improve – and then we will proceed only with great caution. But there are no guarantees of results for next summer. We might suffer continued overabundance of planktonic algae and have to wait until the weeds surface before we can harvest. Or we might go back to our previous status quo of water clarity and consider 2024 an aberration. Then again, we might face some completely unforeseen issue that poses yet other challenges. Suffice it to say, we will do our best and ask for everyone's patience as we seek to improve our lake's water quality.

Lastly, some might be asking why we continue with LakePro after this past year's debacle. Well, that is a decision not to be taken lightly and one that involves others. LakePro provides lake management services to Lower Long Lake and Forest Lake, in addition to Island Lake. Further, it is not to be disregarded that LakePro has a lengthy history of providing successful lake management services for Island Lake. That said, we are sharing with the POA Board our current disappointing experience with LakePro and will closely monitor their performance in the upcoming season.