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Island Lake, Oakland County
May 27, 2021

Site Visit Report

On April 30th, 2021, LakePro completed the Spring Water Quality Analysis on Island Lake. During this visit, we performed field tests and collected water samples for analysis in the lab.

Notes

We had a 16' aluminum boat on site and launched from the association's launch. We were on the lake from 2:15 PM until 3:10 PM. It was 52°F and sunny with high winds during testing.

The parameters tested were: Temperature, Dissolved Oxygen, Transparency, Total Phosphorus, Phosphate, Nitrate-nitrogen, chlorophyll *a*, pH, Total Dissolved Solids, Conductivity, Alkalinity, Sulfate, Fluoride, and Chloride.

With the exception of transparency, all parameters within the target range.

Transparency was lower than the target range, measuring an average of 3.3 feet. Although low, this reading is typical for Island Lake this time of year. We know the transparency typically improves into the target range over the course of the summer and continues to show an improvement each of the last two years.

Historical Comparison

We are happy to see that the overall water quality results have shown a relatively flat trend for each parameter since 2018. While this trend is a positive, total phosphorus and transparency have always been two items that we have kept a close eye on.

Total phosphorus has tested toward the higher end of the target range, even surpassing the target range in the past, but levels have remained flat since 2017. High phosphorus levels can lead to eutrophication and undesirable algal blooms. The best way to reduce phosphorus levels is to prevent them from entering the lake. One way to mitigate this is to encourage responsible land use among the lake residents, especially when it comes to the use of fertilizers. Maintaining a minimum distance of 30 feet from the waterbody during applications, avoiding fertilization of steep slopes, and letting natural vegetation buffer strips grow along the shoreline are all recommended methods to reduce fertilizer runoff.

Even with the transparency improving the past two years, overall, the annual average has been on a downward trend since 2002. One large contributing factor to the low transparency in the spring is the chlorophyll produced by planktonic algae and cyanobacteria in the lake. This is a direct relation to the higher phosphorus levels as those also contribute to the growth of both cyanobacteria and planktonic algae.

Thank you for choosing LakePro,

Tyson Wood
Lake Manager