

EVERY LAKE HAS THE CAPACITY TO REACH AN “ECOLOGICAL TIPPING POINT” THAT WILL COMPROMISE WATER QUALITY.

1

Concern

Nutrients and sediment from nonpoint sources continue to be a significant challenge for the ecological integrity of lakes and streams. The amount of nutrients and sediment being delivered to our local waterbodies far exceed the ability of these aquatic ecosystems to assimilate them.

2

Study Commissioned

The purpose of the study was to assess the efficacy of the Kline Wetland and assess the nutrient dynamics of Lake Maxinkuckee. Water samples were collected for one year and tested for Total Phosphorus, Soluble Reactive Phosphorus, Total Nitrogen, Nitrate-Nitrite, and Total Suspended Solids.

This study is the latest in a long line of scientific studies sponsored by LMEF to better understand the ecological health of our lake.

3

Results

Data collected in 2021 and 2022 suggests it would be highly beneficial to develop a holistic strategy to identify high priority areas to reduce Phosphorus from entering Lake Maxinkuckee. While signs of Phosphorus pollution are not acutely apparent, **the data suggests the lake is clearly entering an ecologic transitional period.**

Cultural eutrophication, or the addition of too much Phosphorus to the lake, has historically been a concern (Crisman 1986 and Juracek 2014).

Full report available "What We Do" page lakemax.org

4

Next Steps

Work together to reduce phosphorous flowing into the lake, both on large and small scale projects. Golf courses, lawn care services, agriculture and individuals all play a role in reducing phosphorous and protecting Lake Maxinkuckee.

LMEF has commissioned a watershed assessment study to identify potential projects which, if implemented, would help reduce Phosphorous loading and improve water quality in the lake. We should have this study later this spring.



Watershed

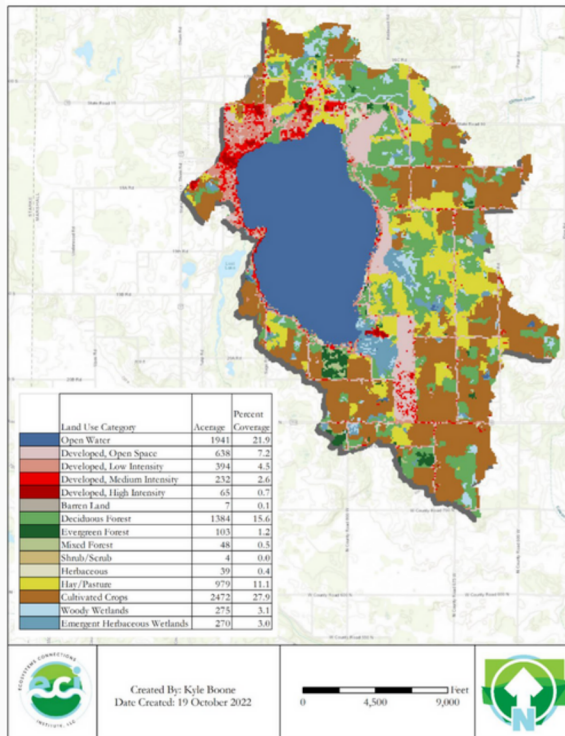
An area of land that drains to a shared waterbody

Land Use Across the Lake Maxinkuckee Watershed

The predominant land use is cultivated agriculture at 27.9% or 2,472 acres (see brown shaded area).

This is a significant decrease from a 2005 map which showed cultivated agriculture at 40% or 3,550 acres.

Lake Maxinkuckee is fortunate to be physically buffered from acute nutrient pollution with a low watershed to lake ratio of 4.6 acres land (watershed) to 1 acre of lake surface area.



Major Watersheds for Lake Maxinkuckee

The watershed area for Lake Maxinkuckee is 8,850 acres

From North to South

Wilson Ditch - 1,703 Acres
Curtis Ditch - 1,563 Acres
Kline Ditch - 1,849 Acres

Sample site locations for Kline Ditch, lake outflow and lake sample sites are indicated

