Matteson Lake 2017 Water Quality Summary

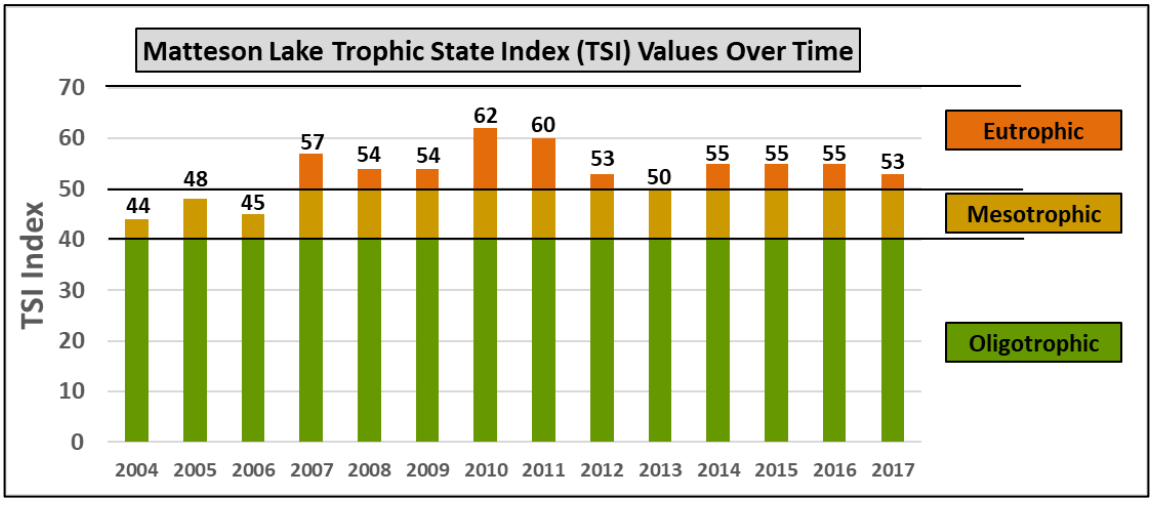
We collected water samples on two separate occasions in 2017. Sampling showed that nitrogen and phosphorus concentrations at the inlet were higher than concentrations exiting the lake at its outlet. The opposite was true for total suspended solids (TSS). Both of these conditions are similar to what we've seen in past years.

2017 Matteson Lake Inlet-Outlet Sampling Results

	Nitrogen (mg/L)		Phosphorus (ug/L)		TSS (mg/L)	
Date	Inlet	Outlet	Inlet	Outlet	Inlet	Outlet
07/11/17*	2.7	2	70	<20	5	11
08/14/17	1.7	1.2	40	20	4	11

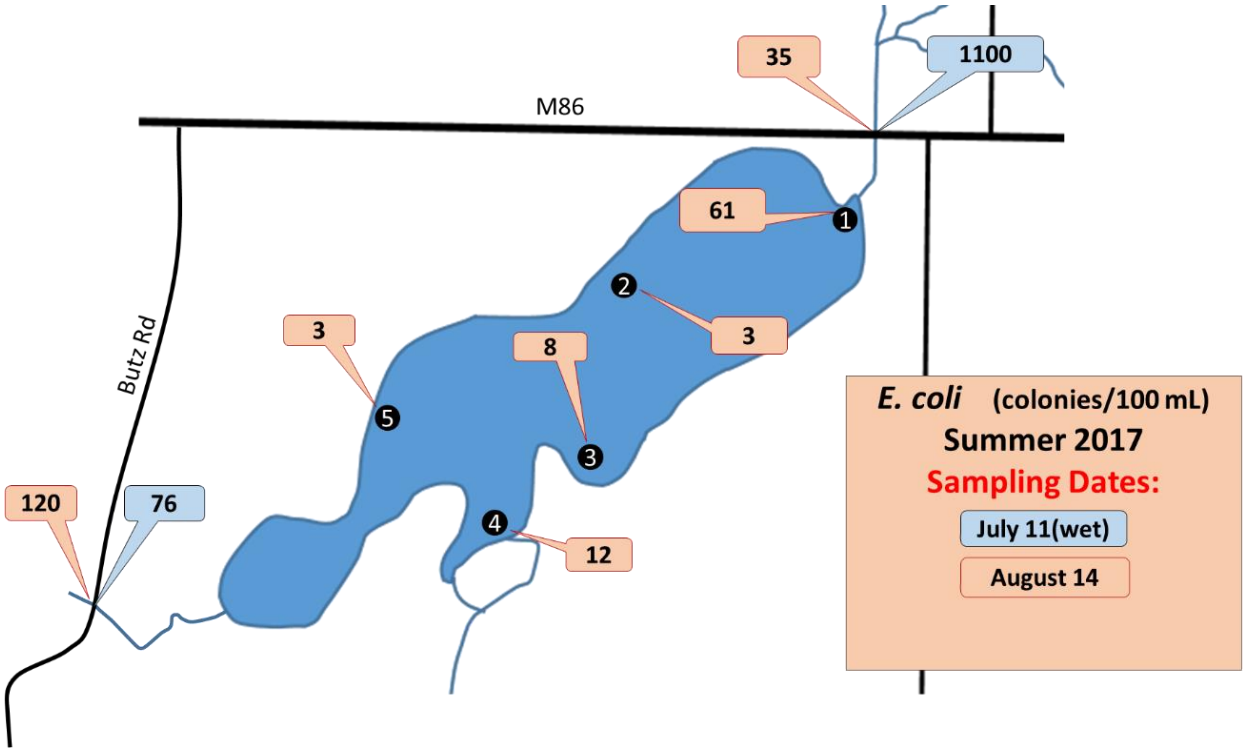
* wet weather

The Trophic State Index (TSI) measures water quality using three separate variables: phosphorous concentration, green algae abundance, and water clarity. The TSI score on August 14, 2017 was 53. Although this value is down from the last three years, it indicates that the lake remains *eutrophic*, with excess nutrients that can lead to algae blooms and excess aquatic plant life. When plants and algae die, their decomposition robs the water of oxygen that fish need to live.



The long-term goal of the Water Quality Committee is to return Matteson Lake to mesotrophic conditions and to keep it there.

E. coli sampling at the inlet, outlet, and five locations within the lake found bacteria values that were at or below those seen in prior years. With the exception of the 1100 colonies per 100 ml measured at the M-86 Bridge during wet weather, all were safe for swimming. As in past years, swimming in the river is not recommended!



2018 Water Quality Sampling Plan

Sampling for 2018 began in May and bimonthly sampling is planned to continue through the fall. This year, we'll measure the TSI score for the lake in the spring, summer, and fall, along with similar water quality parameters (nutrients, TSS, and E.coli) at the lake inlet and outlet.

2018 Lake and Watershed Sampling

	Spring 15-May	Summer 15-Jul	Fall 15-Sep	Wet after rain
TP	√	√	√	√
TN	√	√	√	√
TSS	√	√	√	√
Chl-A	√	√	√	√
E.coli	√	√	√	√