

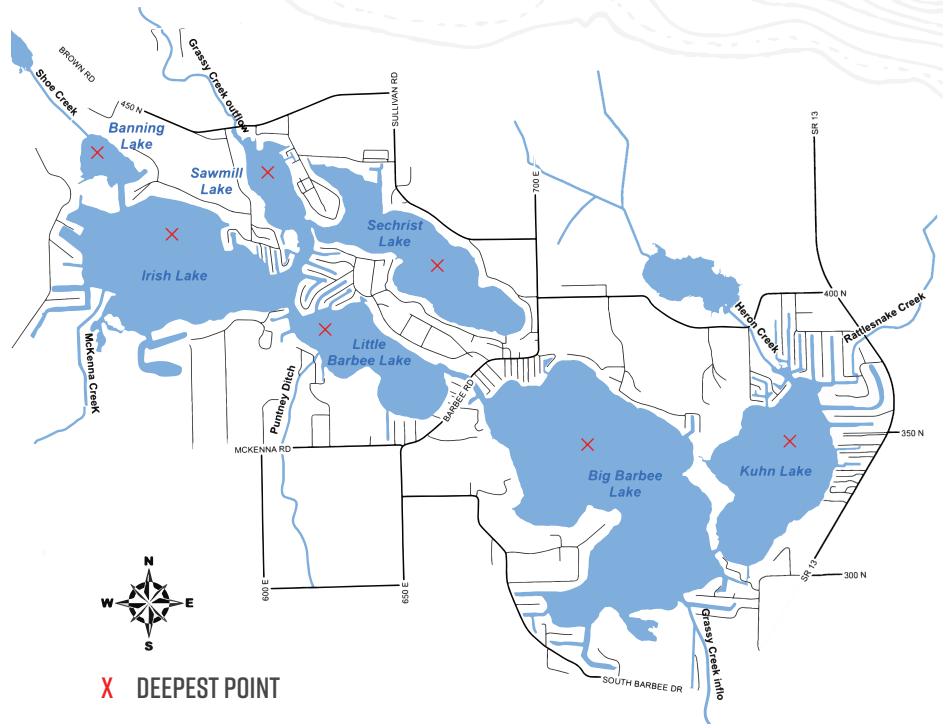
BARBEE LAKES SEWER STUDY

BARBEE LAKES CHAIN WATER QUALITY ASSESSMENT, PRE- AND POST-PUBLIC SEWER INSTALLATION (2019-20 REPORT)

This two-part study investigated lake water quality on the Barbee lakes chain **before and after the installation of a public sewer system.**

The Lilly Center assessed the water quality of the Barbee chain and Chapman chain (used as an observational control) in 2012-13, before the sewer installation, and again in 2019-20, after the installation.

Due to excess nutrients and bacteria found in wastewater, **poorly functioning septic systems can harm water quality and safety.**



Nutrient levels were lower in lakes in the post-study compared to the pre-study in both the Barbee and Chapman chains. This was true even though streams carried more nutrients into the lakes in 2019-20.



Streams were a much greater source of *E. coli* than near-shore water in both chains, pre- and post-installation.



Based on our study, the most isolated Barbee chain lakes, Kuhn and Sechrist, were the most likely to have been positively impacted by the sewer installation.



Total nitrogen (which can be harmful to lakes at high levels) **decreased** in the Barbee lakes that are more influenced by streams: Big Barbee, Irish, and Little Barbee lakes.

