



## Surface Water



The LTBB Surface Water Quality Monitoring Program consists of collecting physical, chemical, and biological parameters and then interpreting and utilizing the data to determine water quality. The primary objective is to obtain baseline data for water bodies within or adjacent to the 1855 Treaty Delineated Reservation

Boundaries. This baseline data evaluates current water quality conditions in order to protect these water bodies from degradation for the next seven generations. This data is a key factor in the process of creating LTBB Tribal uses and standards. Adopting Tribal uses and standards asserts responsibility to our water resources and allows the opportunity to exercise our rights as a sovereign nation.

Water bodies that are sampled during even years are Little Traverse Bay, Round Lake, Oneal Lake, Wycamp Lake, Walloon Lake, Bear River, Five Mile Creek, Tannery Creek, and Wycamp Creek. Those sampled during odd years are Lake Charlevoix, Susan Lake, Spring Lake, Larks Lake, Crooked Lake, Susan Creek, Big Sucker Creek, and Brush Creek/Maple River. Many of these water bodies contain multiple sampling sites. The LTBB field season begins in May and ends in October of every year.



Chemical and physical parameters that are measured on a monthly basis include: dissolved oxygen, conductivity, temperature, pH, total suspended solids, velocity, water clarity, nitrate/nitrite, total phosphorus, total kjeldahl nitrogen, chloride, turbidity, and chlorophyll *a*. Biological parameters consist of a benthic macroinvertebrate study that is conducted in May and an annual habitat assessment that takes place in July. Boyne River is monitored on a seasonal basis for physical parameter only. Field assessments are currently being conducted in effort to change the LTBB field season to a seasonal monitoring program. This change will allow for a range of data results for each parameter throughout the year. The map located below shows where the monthly sampled water bodies are located and where data is collected from for even and odd years.



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# LTBB Surface Water Quality Monitoring Sites



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