

Summary

Wabana Lake is located 13.5 miles north of Grand Rapids, MN in Itasca County. Wabana Lake has three inlets and one outlet, which classify it as a drainage lake. Wabana Lake is part of the Wabana Chain of Lakes Association (WCOLA). The association is involved in activities such as water quality monitoring and education.



There is an improving trend in total phosphorus concentrations; however, the chlorophyll a & transparency data indicate stable water quality conditions. Water quality data have been collected on Wabana Lake from 1975-2020. These data show that the lake is oligotrophic (TSI = 36) with very clear water conditions most of the summer and excellent recreational opportunities.

Lake Vitals

MN Lake ID:	31-0392-00
Ecoregion:	Northern Lakes and Forests
Major Watershed:	Mississippi R. -Grand Rapids
Surface area	2221 acres
% Littoral area:	46%
Max depth:	115 (ft) 35 (m)
Aquatic Invasive Species:	None

Long-term Trends

Recommend minimum of 8-10 years of data with 4+ readings per season. Minimum confidence accepted by MPCA is 90%

Total Phosphorus:	Improving (99%) (1991-2020)
Chlorophyll-a:	No Significant Trend (2000-2020)
Secchi Depth:	No Significant Trend (2005-2020)

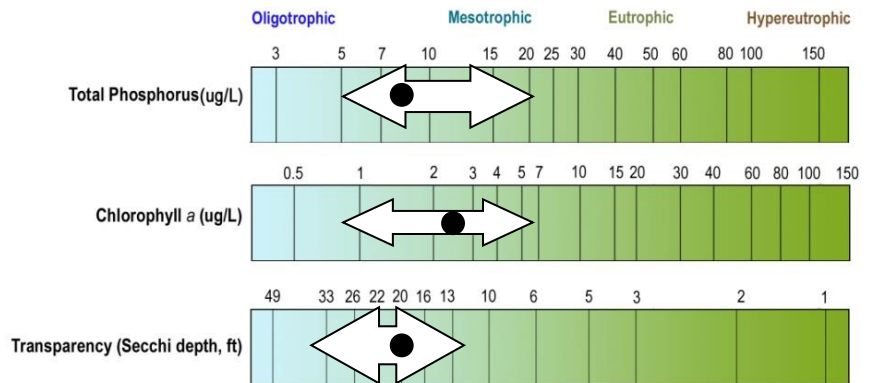
Water Quality Characteristics

Parameters	Site <u>202</u>
Total Phosphorus Mean (ug/L):	8.2
Total Phosphorus Min (ug/L):	<5.0
Total Phosphorus Max (ug/L):	20.0
Number of Observations:	45
Chlorophyll-a Mean (ug/L):	2.3
Chlorophyll-a Min (ug/L):	<1
Chlorophyll-a Max (ug/L):	6.5
Number of Observations:	41
Secchi Depth Mean (ft):	19.2
Secchi Depth Min (ft):	13.0
Secchi Depth Max (ft):	35.1
Number of Observations:	150

Trophic State Index

Trophic State: Oligotrophic (36)

The figure below shows the minimum and maximum values with the arrows and the mean with the black dot.



Historical Data Summary

Monitoring Program

Citizen Lake Monitoring Program
 Clean Water Legacy Surface Water Monitoring
 Water Quality Inventory of Itasca County Lakes
 Lake Monitoring Program
 MPCA Lake Monitoring Program Project
 Itasca County Lake Assessment (+JLCWP)
 Bigfork River Watershed Priority Waters Assessment
 Paleo Lakes
 Wabana Chain of Lakes
 Wabana Chain of Lakes
 Wabana Chain of Lakes

Laboratory

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 -
 -
 -
 -
 Natural Resource Research Inst.
 -
 Itasca Community College
 Instrumental Research
 MN Chippewa Tribe

Years

1975-1977, 1988, 1990, 1992-2015
 2015-2016
 2001
 2000, 2020
 1985, 1988, 1991
 2001-2002
 2001-2002
 2001-2002
 2010, 2014
 2005, 2008
 1999, 2003

