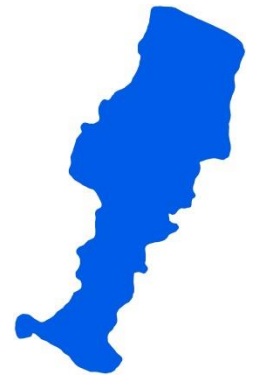


Summary

Bluewater Lake is located 16 miles southeast of Suomi, MN in Itasca County. It is part of the Wabana Chain of Lakes Association (WCOLA). WCOLA is involved in many projects including water quality monitoring and education.

Bluewater Lake has no inlets and one outlet, which classify it as a groundwater drainage lake. Water exits Bluewater Lake from Wabana Creek on the south side of the Lake and carries water south to the Mississippi River.

Water quality data have been collected on Bluewater Lake from 1988-2015 (Tables 2 & 3). These data show that the lake is oligotrophic (TSI = 35) with very clear water conditions most of the summer and excellent recreational opportunities.



Lake Vitals

MN Lake ID:	31-0395-00
Ecoregion:	Northern Lakes and Forests
Major Watershed:	Mississippi R. -Grand Rapids
Surface area	359 acres
% Littoral area:	21%
Max depth:	120 (ft) 37 (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%

Phosphorus: No Trend (1991, 1999, 2003, 2005, 2008, 2014-2015, 2020)

Chlorophyll-a: No Trend (1999, 2003, 2010-2011, 2014-2015)

Secchi Depth: No Trend (1992-2016)

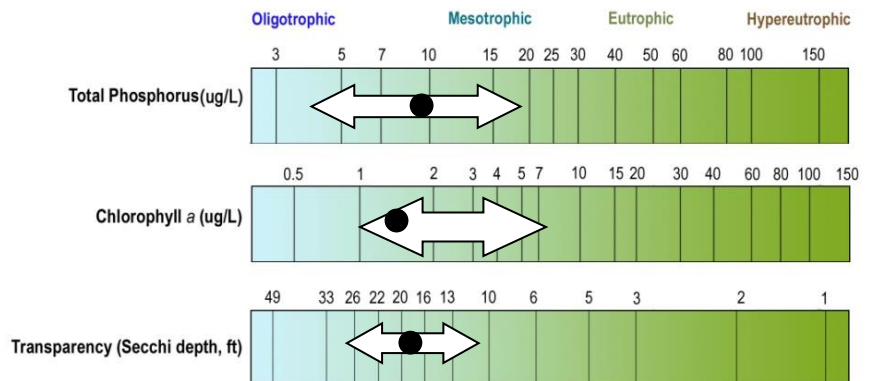
Water Quality Characteristics

Parameters	Site <u>202</u>
Total Phosphorus Mean (ug/L):	8.7
Total Phosphorus Min (ug/L):	4
Total Phosphorus Max (ug/L):	18
Number of Observations:	31
Chlorophyll-a Mean (ug/L):	1.6
Chlorophyll-a Min (ug/L):	<1
Chlorophyll-a Max (ug/L):	7.6
Number of Observations:	42
Secchi Depth Mean (ft):	18.7
Secchi Depth Min (ft):	12.0
Secchi Depth Max (ft):	27
Number of Observations:	414

Trophic State Index

Trophic State: Oligotrophic (35)

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
 MPCA Lake Monitoring Program Project
 Lake Monitoring Program
 Itasca County Lake Assessment (+JLCWP)
 Paleo Lakes
 Bigfork River Watershed Priority Waters Assessment
 WCOLA

Laboratory

-
 -
 -
 -
 -
 -
 Natural Resource Research Institute
 Itasca Community College

Years

1988-2016
 2015
 1988, 1991
 2000, 2020
 2001-2002
 2001-2002
 2001-2002
 2010-2011, 2014