



Otter Tail Coalition of Lake Associations

[otccola2@gmail.com](mailto:otccola2@gmail.com)

## **Water Quality Analysis Reports 2019**

### ***West Battle 56-0239-00***

The 2019 analysis data for West Battle Lake has been consolidated into the 2019 Water Quality Analysis Report. Your Lake Organization, **West Battle Lake Association**, participates in the OTC COLA [Water Monitoring Program](#).

For 2019 the reports have been expanded to identify each lake individually and include separate data tables for each site.

To see where West Battle Lake is on an interactive map and for more information about the Lake, click [HERE](#).

Samples were taken for **Phosphorus**, **Chlorophyll-a** and water **Clarity** (Secchi) analysis. Learn about collecting water samples [HERE](#). The samples were analyzed by [RMB Laboratories](#) in Detroit Lakes, MN. Click [HERE](#) for a technical explanation of the analysis.

For the trend analysis for West Battle Lake **OTC COLA** compiled data for years from 2010. The results were averaged by site and year.

Lake / Site	Year	Phosphorus Ave	Chlorophyll a Ave	Secchi Ft	TSI Ave
West Battle 56-0239-00 201	2010	13.3	3.8	13.8	40.8
	2011	11.2	3.4	14.8	39.6
	2012	10.5	3.0	12.3	39.5
	2013	9.8	2.4	13.4	38.6
	2014	13.0	2.5	12.6	39.8
	2015	10.8	3.5	13.0	40.3
	2016	10.8	2.2	14.4	38.5
	2017	9.8	1.9	13.5	37.0
	2018	11.0	2.2	13.9	38.0
	2019	9.0	1.2	25.6	32.4
<b>West Battle 56-0239-00 201 Average</b>		<b>10.9</b>	<b>2.6</b>	<b>14.7</b>	<b>38.4</b>
					

Lake / Site	Year	Phosphorus Ave	Chlorophyll a Ave	Secchi Ft	TSI Ave
West Battle 56-0239-00 202	2010	10.4	4.0	14.3	39.8
	2011	10.4	3.2	13.8	39.6
	2012	13.3	3.5	11.8	41.5
	2013	27.4	2.4	13.7	40.8
	2014	12.3	3.3	12.5	40.8
	2015	11.3	2.5	13.0	39.3
	2016	11.8	2.4	14.4	38.5
	2017	10.0	2.1	13.5	38.0
	2018	10.5	1.3	13.9	36.0
	2019	9.4	1.7	25.6	33.0
<b>West Battle 56-0239-00 202 Average</b>		<b>12.7</b>	<b>2.6</b>	<b>14.6</b>	<b>38.7</b>
					

The mini-graphs at the bottom of each test represent the trend line for the years included.

**West Battle Lake was infested with zebra mussel in 2016**

## Ecoregion Comparison

Another approach to evaluating health of lakes is test data compared to Ecoregions. An Ecoregion is a geographical area where the land use (agriculture, forest, prairie, etc.), underlying geology, potential native plant community, and soils are relatively similar. The lakes in Otter Tail County are in the Northern Central Hardwood Forest Ecoregion. Click [HERE](#) to learn more about Ecoregions.

Compare the **West Battle Lake Average** to the Northern Central Hardwood Forest Ecoregion ranges of averages shown here:

**Phosphorus: 23–50, Chlorophyll: 5–22, Secchi (ft): 5–10.5**

## **What Is A Healthy Lake?**

It is widely accepted that the amount of phosphorus in a lake often determines the ultimate disposition of health for a lake. The amount of phosphorus in a lake is the primary nutrient for proliferation of algae and aquatic plant life. Control of infusion to West Battle Lake of phosphorus from animal waste, human waste and fertilizers is the most probable objective to pursue to nurture health.

## **Concerned About Phosphorus?**

### **What to do**

- Investigate and control property owner septic system efficiency
- Identify and pursue adverse land run off from lake property owners, farms and feed lots
- Educate lake property owners on detrimental use of phosphate lawn fertilizers

### **Who Can Help**

#### **OTC COLA**

- COLA sponsored water quality testing
- Monthly **NEWSLETTERS**     **SUBSCRIBE**
- OTC COLA **WEBSITE**
- Attend summer monthly meetings
- Participate in COLA events
- Network with fellow COLA members
- OTC COLA **BROCHURE**

#### **Minnesota Pollution Control Agency MPCA**

- The MPCA provides technical and financial assistance and enforces environmental regulations in the State of Minnesota.

**East Otter Tail Soil & Water Conservation District [EOT SWCD](#)**

- [Shore & Water](#)
  - [Funding assistance](#)

**West Otter Tail Soil & Water Conservation District [WOT SWCD](#)**

**Otter Tail County [Land & Resource Management](#)**

- The Department of Land and Resource Management is designed to enforce county and state ordinances / rules.

**[West Central Initiative](#)**

- **Mission:** Serving to improve west central Minnesota through funding, programs and technical assistance.

**Minnesota Department of Natural Resources [MN DNR](#)**

**OTC COLA Board of Directors**

David Helgerson · Jeff Stabnow · Jeff Vansteenburgh ·  
Patrick Prunty · Roger Neitzke · Ron Christensen · Sylvia Soeth  
John Kruse, OTC COLA Administrative Assistant  
[otccola2@gmail.com](mailto:otccola2@gmail.com)