

Otter Tail County Coalition of Lake Associations
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OTC COLA Water Quality Testing Results 2018 Franklin Lake 560-759

Congratulations! Because of Franklin Lake Association and your team of volunteers you have collected valuable water quality information for Franklin Lake in 2018. The data has been collected, analyzed and now has been integrated into a multi-year trend analysis. This information is valuable to lake property owners concerned about the future of living at the lake. It is also an important resource to state and county agencies for making beneficial decisions on lake management.

Franklin Lake is located near Pelican Rapids, Minnesota. To see where Franklin Lake is on an interactive map and for more information about the Lake click **HERE.**

Samples were taken for **Phosphorus**, **Chlorophyll** 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.

Additional water quality analysis updated to 2017 for Franklin Lake is available on the Minnesota Pollution Control Agency website (MPCA) click <u>HERE</u>, then click on the **Water Quality Summary tab.**

For the trend analysis for Franklin Lake OTC COLA compiled data from 10 years from 2009. The measurements were first averaged by month and then averaged by year.

KEY	NUMBER	COLA	year	Phosphorus	Chlorophyll	Secchi Ft	TSI Avg.
Franklin 560-759	560-759	COLA	2009	21.2	6.8	11.1	46.0
			2010	21.5	9.8	9.7	48.5
			2011	18.8	8.2	10.3	46.4
			2012	23.4	6.8	10.0	47.0
			2013	22.0	7.6	9.2	48.2
			2014	28.4	7.4	11.9	48.0
			2015	19.6	7.6	9.5	47.4
			2016	22.4	8.0	9.8	47.8
			2017	17.8	5.9	10.0	45.8
			2018	15.2	4.4	11.0	43.6
Franklin 560-759 Average				21.0	7.3	10.2	46.9
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The mini-graphs at the bottom of each test represent the trend line for the years included. The analysis category assigned to Franklin Lake is **Classic-Increase**. Classic-Increase means Phosphorus trends down, Chlorophyll trends down and Secchi (clarity) trends up. Your interpretation of the trend may differ from that which is offered. To see definitions of the subjective trend categories, click **HERE** 

#### Franklin Lake was infested with zebra mussels in 2016

# **Ecoregion Comparison**

Another approach to evaluating clarity in 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 <a href="HERE">HERE</a> to learn more about Ecoregions.

Compare the **Franklin 560-759 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 Franklin Lake of phosphorus from animal waste, human waste and fertilizers is the most probable objective to pursue to nurture health of Franklin Lake.

**MORE** 

# **Concerned About Phosphorus?**

### What to do

- Investigate and control property owner septic system efficiency
- Identify and pursue adverse land run off from 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 <u>NEWSLETTERS</u> <u>SUBSCRIBE</u>
- OTC COLA WEBSITE
- Attend summer monthly meetings
- Participate in COLA events
- Network with fellow COLA members
- OTC COLA BROCHURE

### Minnesota Department of Natural Resources MN DNR

### Minnesota Pollution Control Agency MPCA

- The MPCA monitors environmental quality, offers technical and financial assistance and enforces environmental regulations in the State of Minnesota.
- Financial assistance for water projects

## East Otter Tail Soil & Water Conservation District **EOT SWCD**

- Shore & Water
  - Shoreland restoration
    - Funding assistance available

## Otter Tail County Land & Resource Management

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