

# COMFORT LAKE

## Fast Facts:

DNR Lake ID: 13-0053-00

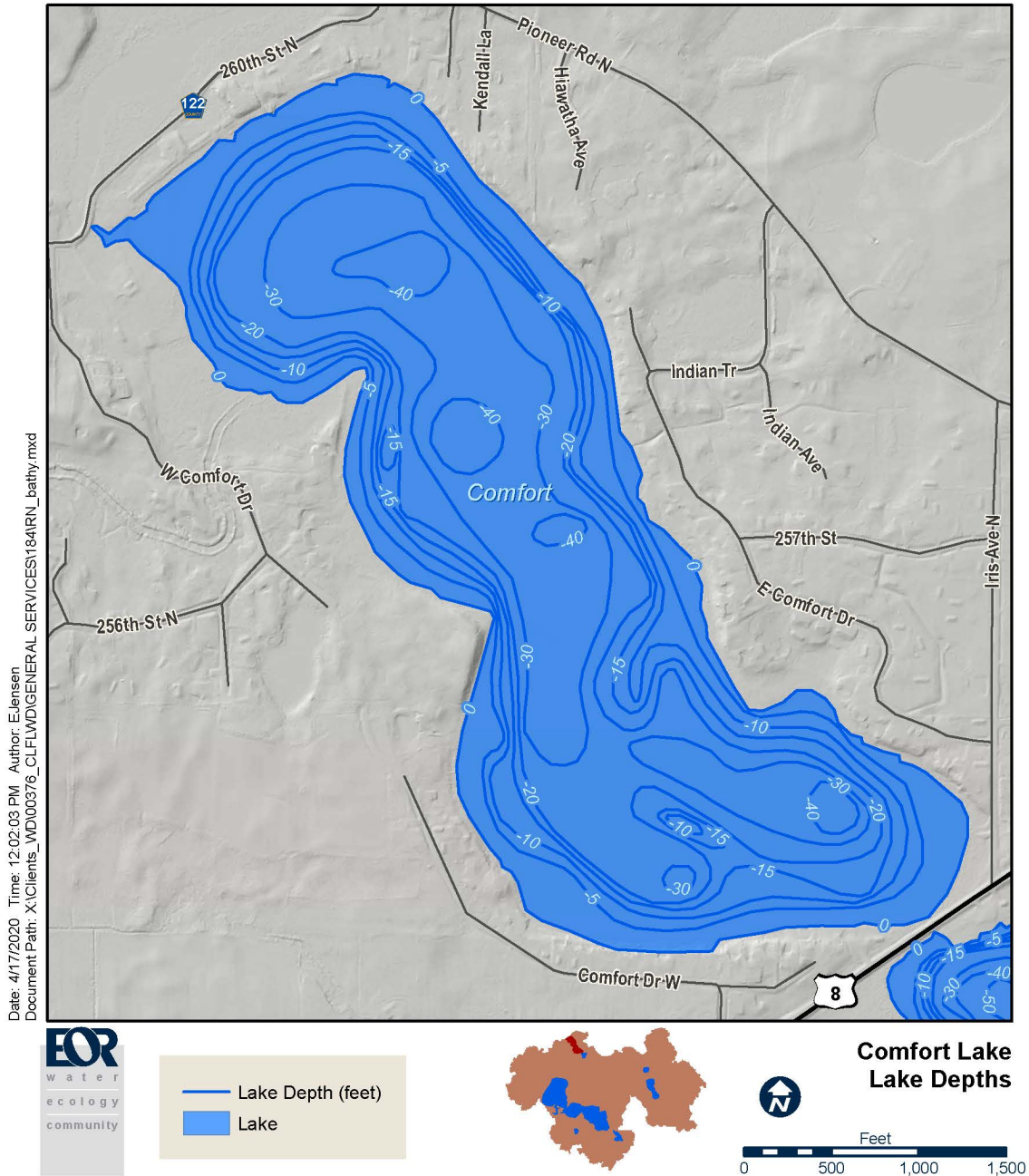
County: Chisago

Surface Area: 218 acres

Littoral Area (depths less than 15 feet): 90 acres

Maximum Depth: 47 feet

Shore Length: 3.24 miles



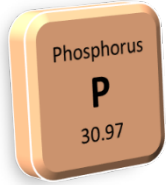
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## 2020 Surface Water Quality Summary

### Nutrients:

June-Sept. Average Total Phosphorus (TP,  $\mu\text{g/L}$ )

**31  $\mu\text{g/L}$**



### Algae:

June-Sept. Average Chlorophyll-a (Chl-a,  $\mu\text{g/L}$ )

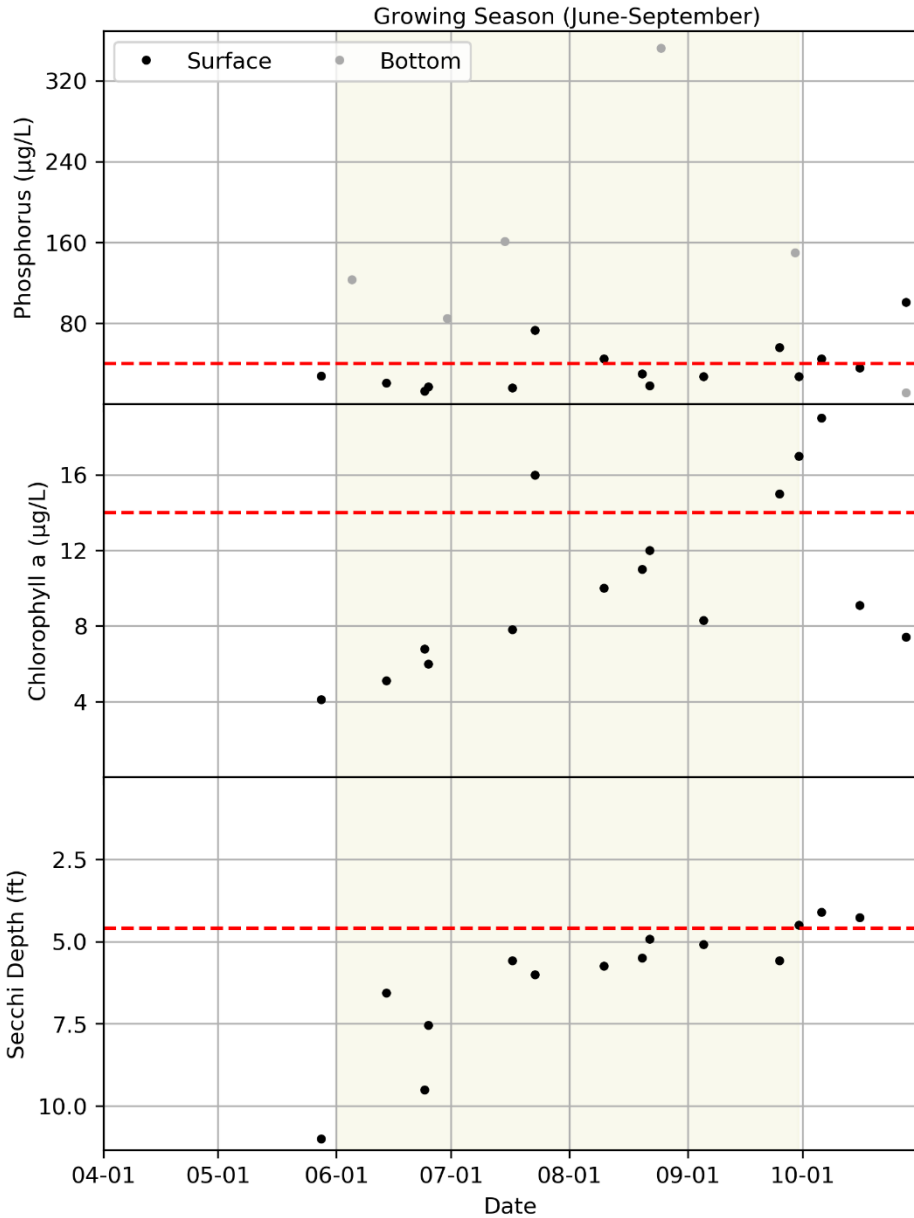
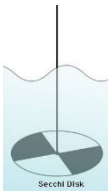
**10  $\mu\text{g/L}$**



### Clarity:

June-Sept. Average Secchi Depth (Secchi, ft)

**6.0 feet**



State standard are shown with a dashed red line. Phosphorus = 40  $\mu\text{g/L}$ , Chlorophyll-a = 14  $\mu\text{g/L}$ , Secchi Depth = 4.6 feet. Sample points are shown in black dots. Points above the line are worse than the State standard. Points below the line are better than the State standard.

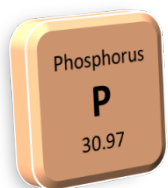
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## Historical Water Quality Summary

	Phosphorus ( $\mu\text{g/L}$ )	Chl-a ( $\mu\text{g/L}$ )	Secchi (feet)
<b>State Standard</b>	< 40	< 14	> 4.6
<b>10-year Average (2011-2020)</b>	<b>31</b>	<b>15</b>	<b>5.0</b>
<b>2031 District Goal</b>	< 30	n/a	> 7.0
<b>5-year Average (2016-2020)</b>	<b>32</b>	<b>15</b>	<b>5.6</b>

### Nutrients:

June-Sept. Average  
Total Phosphorus  
(TP,  $\mu\text{g/L}$ )



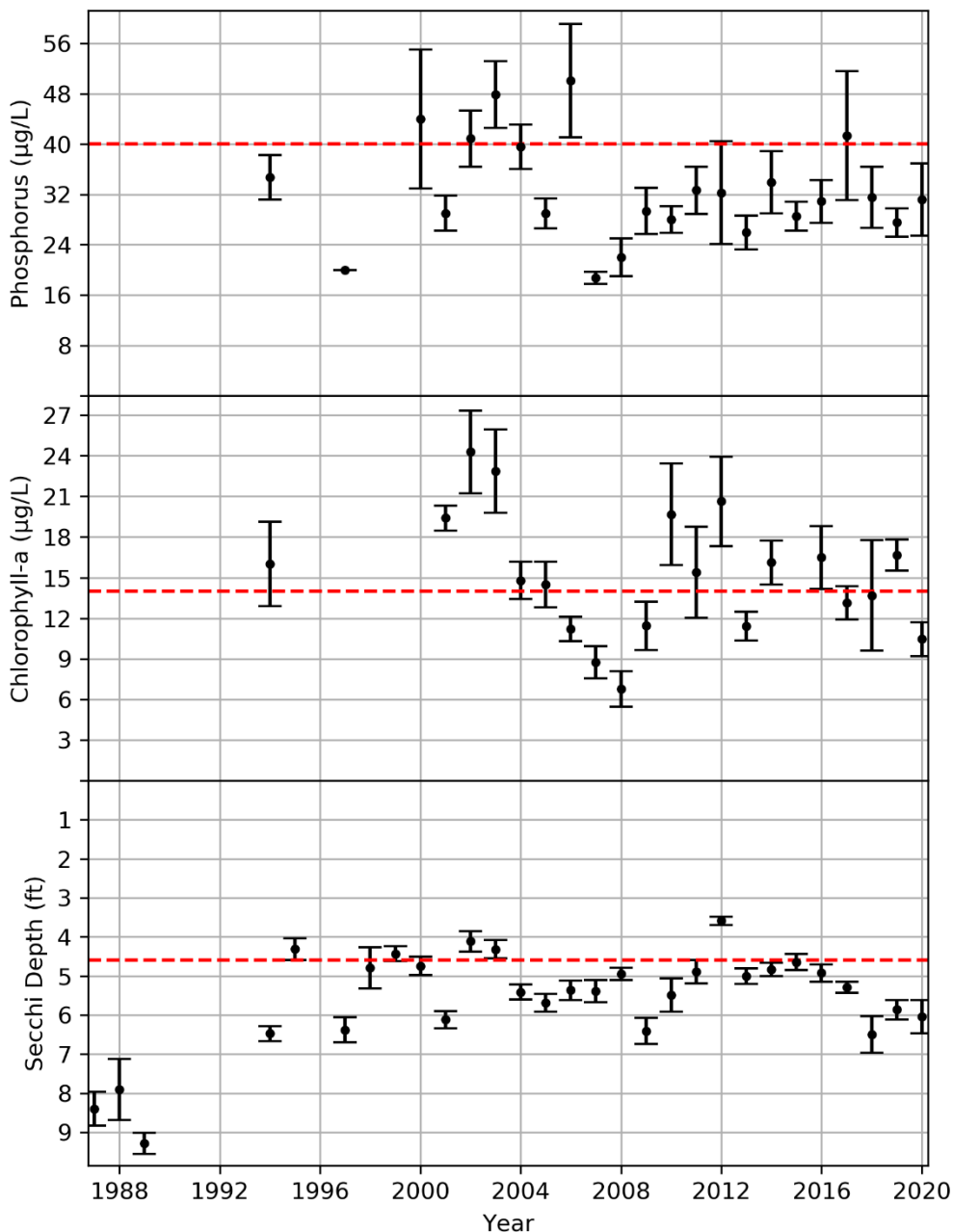
### Algae:

June-Sept. Average  
Chlorophyll-a  
(Chl-a,  $\mu\text{g/L}$ )



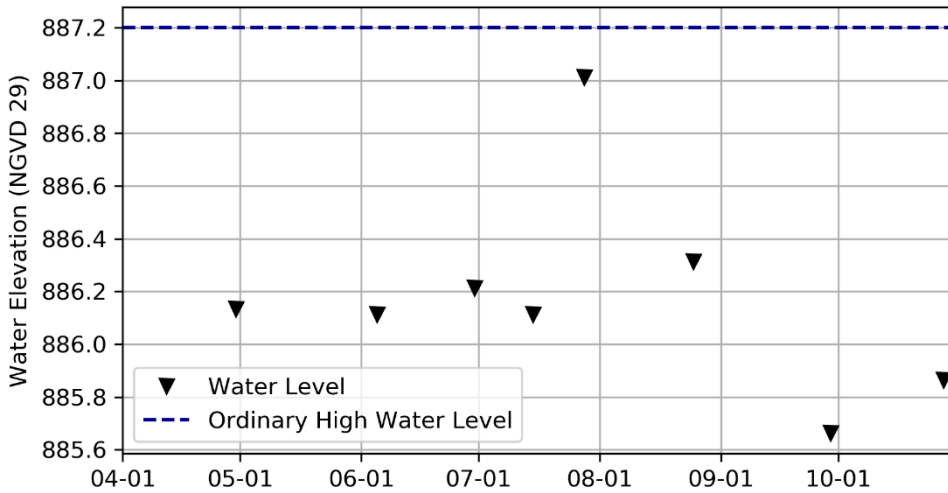
### Clarity:

June-Sept. Average  
Secchi Depth  
(Secchi, ft)



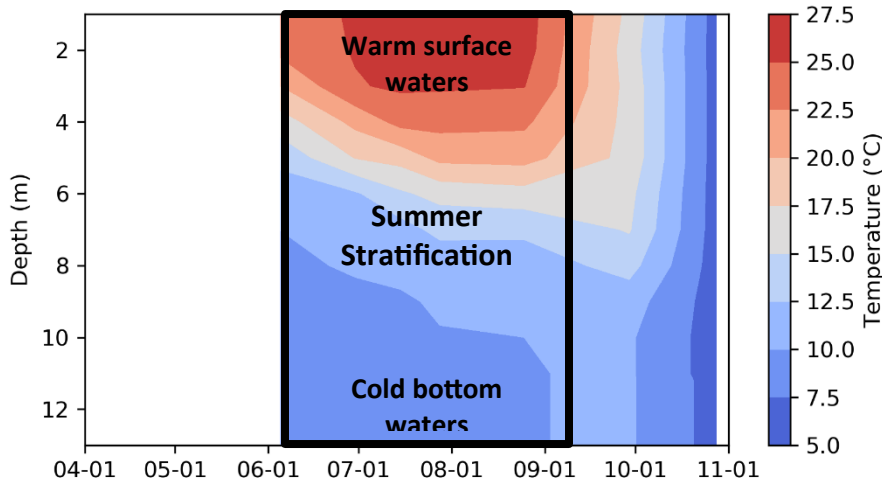
State standard are shown with a dashed red line: Phosphorus = 40  $\mu\text{g/L}$ , Chlorophyll-a = 14  $\mu\text{g/L}$ , Secchi Depth = 4.6 feet. Growing season averages are shown as black points. Points above the line are worse than the State standard. Points below the line are better than the State standard.

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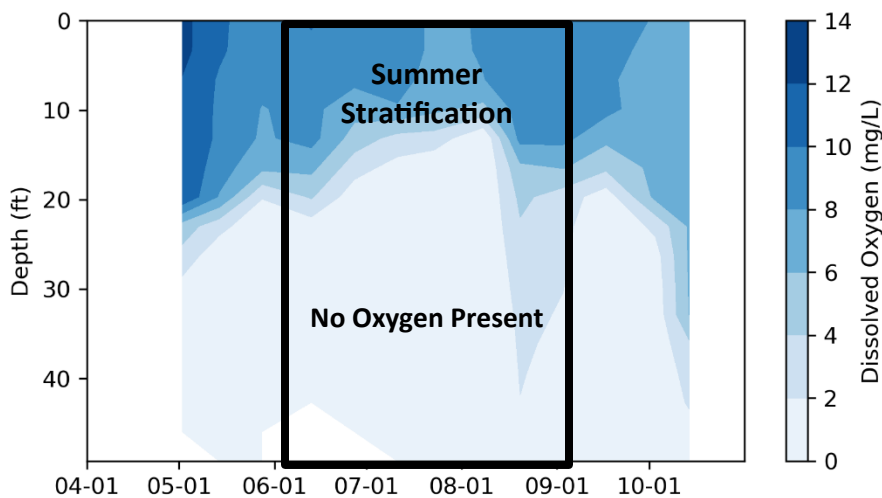
## 2020 Lake Levels

Lake levels ranged over a total of 1.35 feet; between a minimum of 885.66 feet on Sept. 29, 2020 and a maximum of 887.01 feet on July 28, 2020.



## 2020 Temperature Profiles

The lake was stratified from early June until mid-September.



## 2020 Dissolved Oxygen Profiles

Grey represents the duration and depths where no oxygen is present and sediment phosphorus can be released and contribute to internal loading.

Internal loading was possible throughout the growing season. A potential mixing event may have occurred mid-August as indicated by the small spike in bottom water oxygen. Bottom P concentrations increased to moderate levels by August.