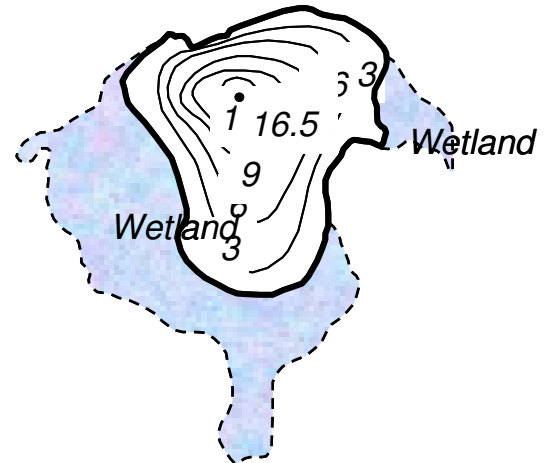


Little Comfort Lake

2009 Lake Grade: B+

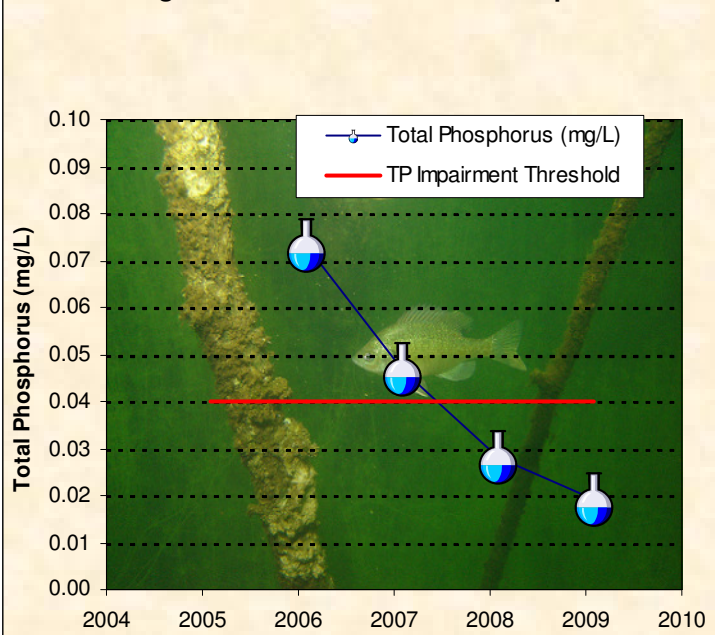
- DNR ID #: 130054
 - Municipality: Chisago City
 - Location: Section 27 T33N-R21W
 - Lake Size: 36 Acres
 - Maximum Depth: 56 ft
 - Ordinary High Water Mark: 887.2 ft
 - 49% Littoral
- Note: Littoral area is the portion of the lake <15 ft and dominated by aquatic vegetation.



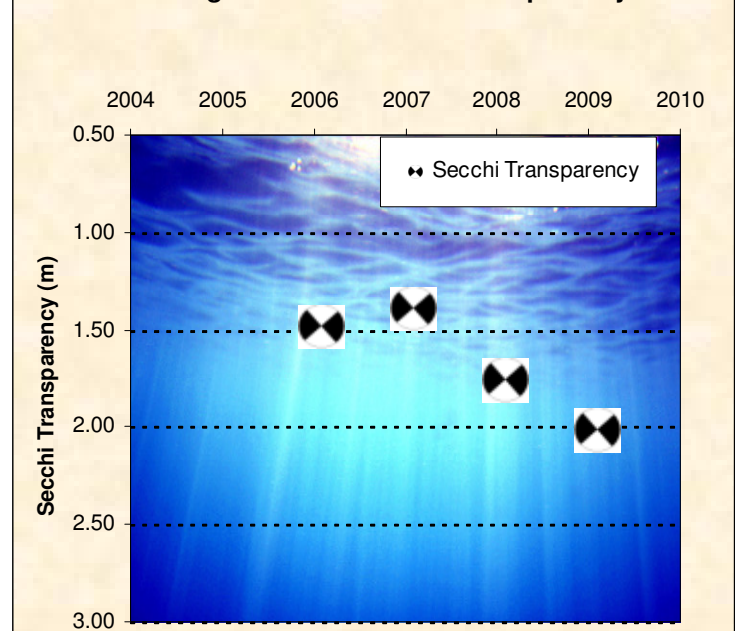
Summary Points

- Little Comfort Lake was considered a mesotrophic lake in 2009, based on the Carlson Trophic State Index.
- 2009 represents the best monitored water quality for Little Comfort Lake to date.
- **Curly leaf pondweed (invasive aquatic plants) are extensive in this lake.**
- The major land use is rural/agricultural.
- The lake does stratify throughout the summer months.

Average Summer Surface Total Phosphorus



Average Summer Secchi Transparency



Date	Total Phosphorus (mg/L)	Chlorophyll-a (ug/L)	Total Kjeldahl Nitrogen (mg/L)	Secchi Disk Depth (m)
4/16/09	0.052	24	1.1	0.8
5/1/09	0.024	11	0.84	1
5/13/09	0.03	7.3	0.92	1.4
6/1/09	0.017	3.5	0.74	2.4
6/10/09	0.018	3.6	0.81	3
6/22/09	0.014	6.6	0.85	2.2
7/12/09	0.017	9.8	0.75	1.7
7/27/09	0.016	10	0.82	1.6
8/23/09	0.022	10	0.78	1.9
9/5/09	0.019	7.8	0.86	1.7
9/16/09	0.029	11	0.87	1.6
10/4/09	0.031	5.8	0.87	1.5
2009 Summer Average	0.019	7.788	0.810	2.013

Water Quality threshold is 0.04 mg/L TP or higher*

Shallow Lake water quality threshold is 0.06 mg/L or higher*

	High	High Date	Low	Low Date	Average
2009 Elevation (ft)	NA	NA	NA	NA	NA

*MPCA description of Impaired Lake's Listing criteria: "At a minimum, a decision that a given lake is impaired for the 303(d) list due to excessive nutrients will be supported by data for both causal and response factors. Data requirements for 303(d) listing consist of 12 or more TP measurements collected from June through September over the most recent 10-year period. Ideally this should represent 12 separate visits to the lake over the course of two summers; however it might also reflect four monthly samples over the course of three years (a typical sampling regimen for many lake monitoring programs). In addition to exceeding the TP guideline thresholds, lakes to be considered for 303(d) listing should have at least 12 Secchi measurements and 12 chlorophyll-a measurements. This amount of data will allow for at least one season (preferably more) of paired TP, chlorophyll-a, and Secchi disk data and provide a basis for evaluating their interrelationships and hence the trophic status of the lake."

Lake Water Quality Summary

	Trophic Status		Lake Grades								
	2009	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000
Total Phosphorus (mg/l)	Mesotrophic	A	B	C	D						
Chlorophyll-a (ug/l)	Mesotrophic	A	C	A	C						
Secchi depth (ft)	Mesotrophic	C	C	C	C						
Overall	Mesotrophic	B+	B-	B-	C						