

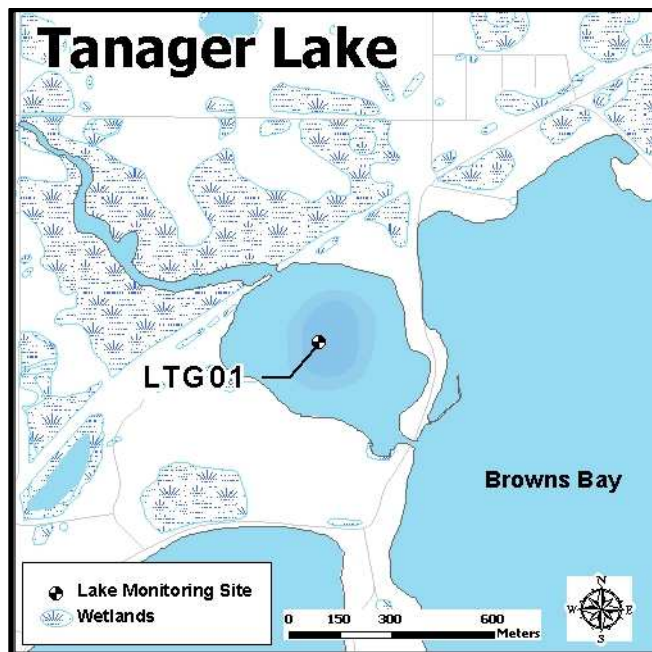
## Tanager Lake (27-0141)

MCWD Site ID: LTG01

Sample Location GPS Coordinates: 44.96126N, -93.56134W

Surface Area (acres): 74

Max. Depth (ft): 20



### Site Information

Lake Minnetonka is a class 2B lake protected for aquatic life and recreation. Tanager Lake is connected by channel to Lake Minnetonka near the city of Wayzata. The bay is adjacent to Browns Bay. Water Quality information is available starting in 2000. MCWD staff have been monitoring the lake on a bi-weekly basis from the time of ice out (April) to the time of fall mixing (mid-October) since 2006. A YSI multi-probe meter was used to measure dissolved oxygen (DO), temperature ( $^{\circ}\text{C}$ ), pH, and specific conductivity ( $\mu\text{S}/\text{cm}$ ) from the water surface and at each meter depth to the bottom. Water samples were collected at 1 meter below the water surface as well as one meter from the bottom. Surface and bottom sample parameters analyzed included total phosphorus (TP), total dissolved phosphorus (TDP), soluble reduced phosphorus (SRP), total nitrogen (TN), total dissolved nitrogen (TDN),  $\text{NO}_3/\text{NO}_2$ , and ammonia ( $\text{NH}_4$ ). Chlorophyll-*a* surface concentrations were also analyzed and measurements of Secchi disc depth were recorded.

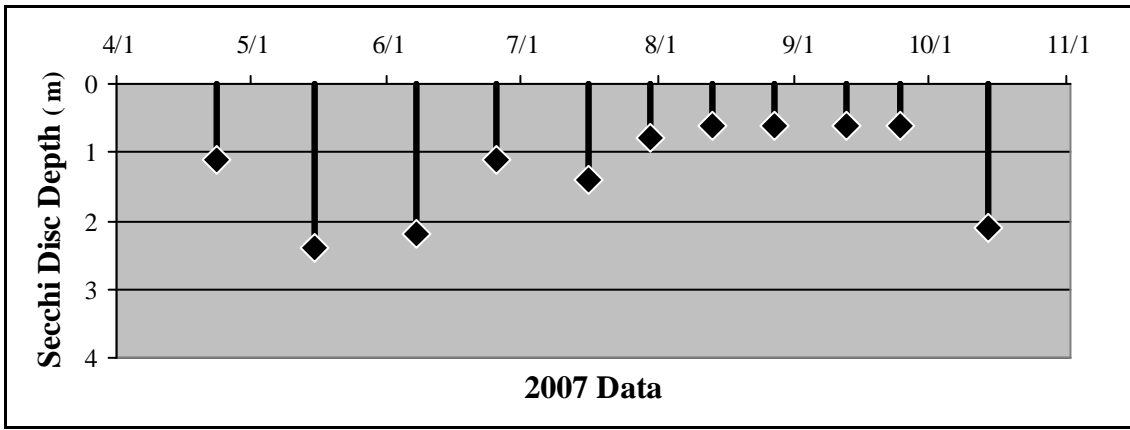
## 2007 Data Summary

- Secchi disc depth was below the standard (1.2 m) for much of the season. Late May through mid-June saw measurements deeper than the standard as did the last measurement of the season in October.
- Chlorophyll-*a* concentrations increased through most of the season with two samples being under the standard (15 ppb). Concentrations were as high as 10 times the standard in mid to late August.
- TP concentrations were well above the standard (40 ppb) for the season. Peaking at 4 times the standard concentration, pre-July was the only period that saw levels close to the standard.

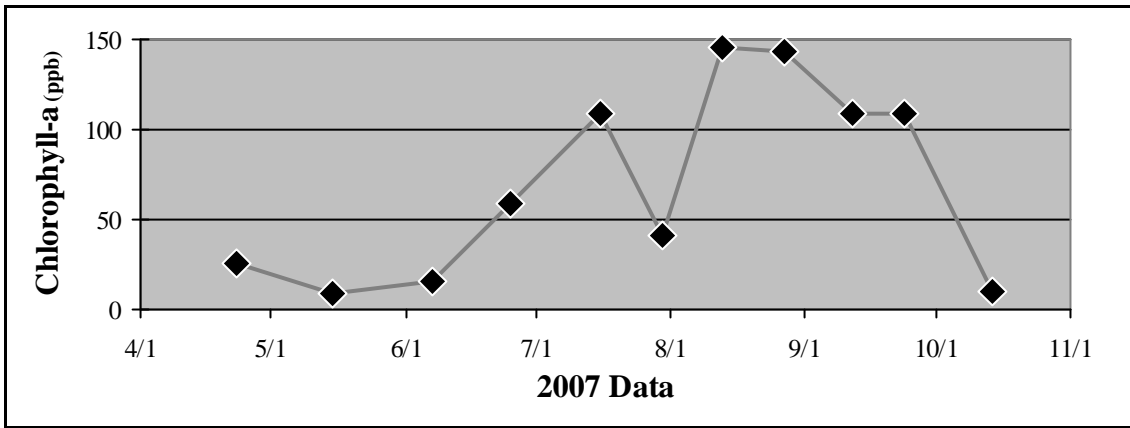
**Table 2.24 Tanager Lake 2007 Summary**

<b>2007 Summer (May-September) Water Quality Summary</b>				
<b>Parameter</b>	<b>Range</b>	<b>Mean</b>	<b>Grade</b>	<b>TSI value *</b>
Secchi Depth (m)	0.6 - 2.4	1.0	D	60
Surface TP ( $\mu\text{g/L}$ )	64 - 165	107.6	D	72
Chlorophyll- <i>a</i> ( $\mu\text{g/L}$ )	9.1 - 146	91.4	F	75
		<b>Overall Score</b>	<b>D-</b>	<b>69</b>

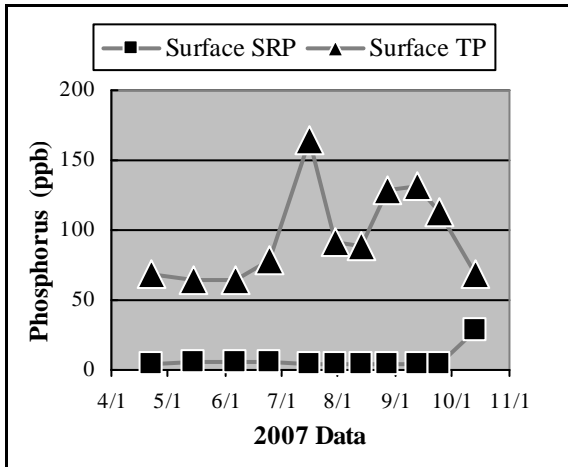
*\*excludes May Data*



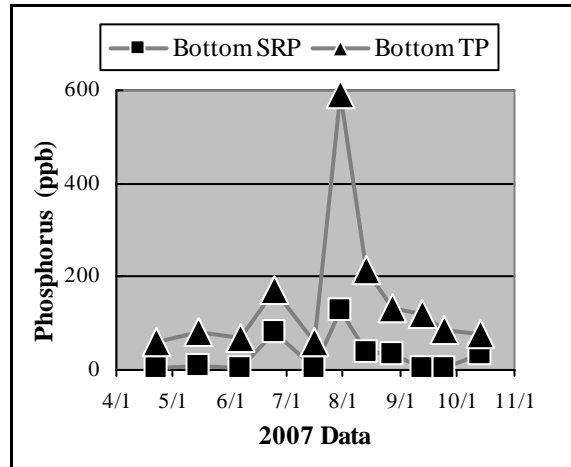
a.



b.

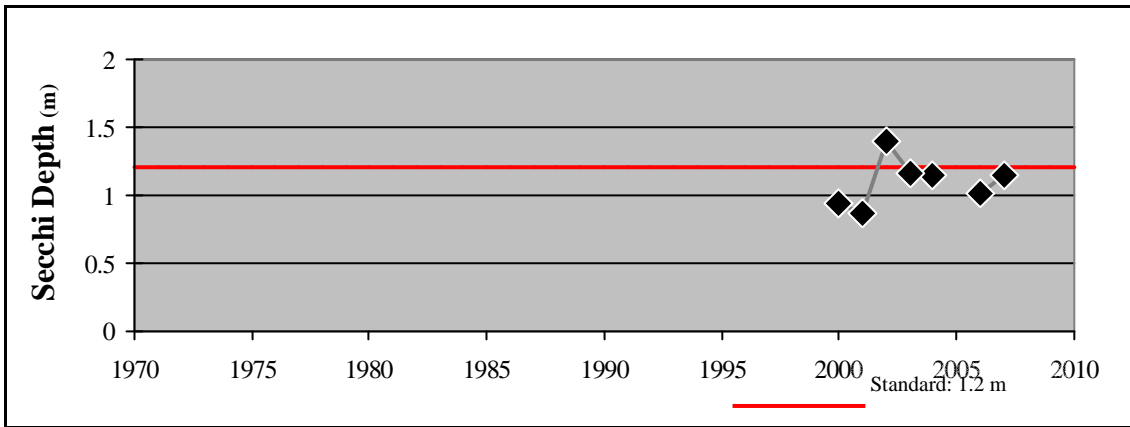


c.

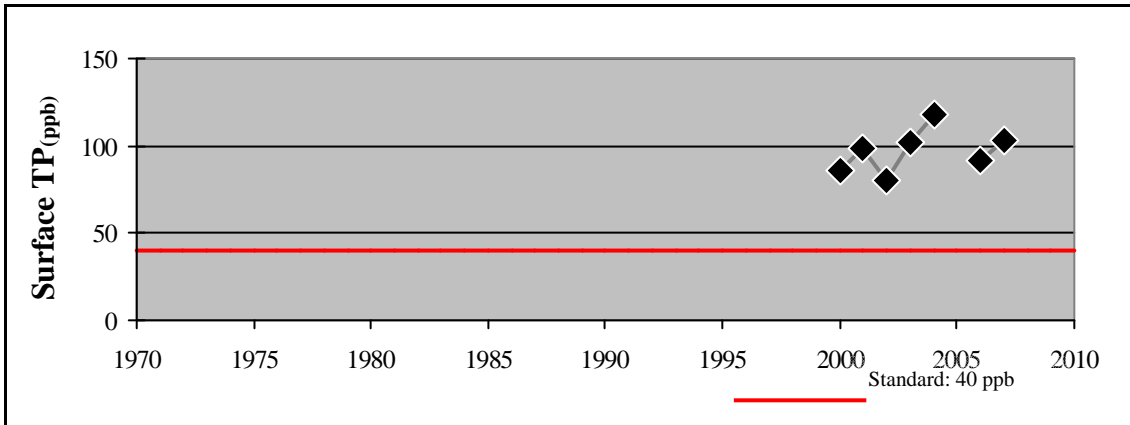


d.

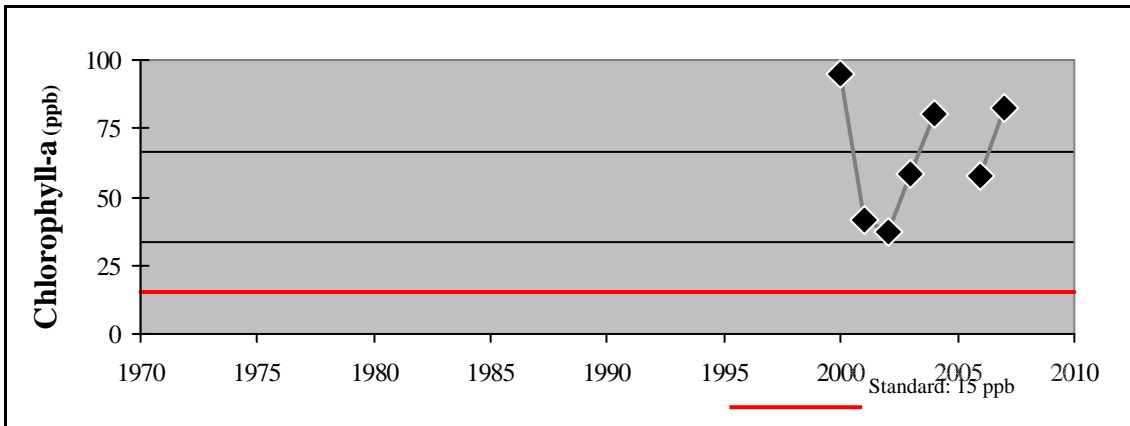
**Figure 2.26 (a-d) Tanager Lake  
2007 Grade: D-**



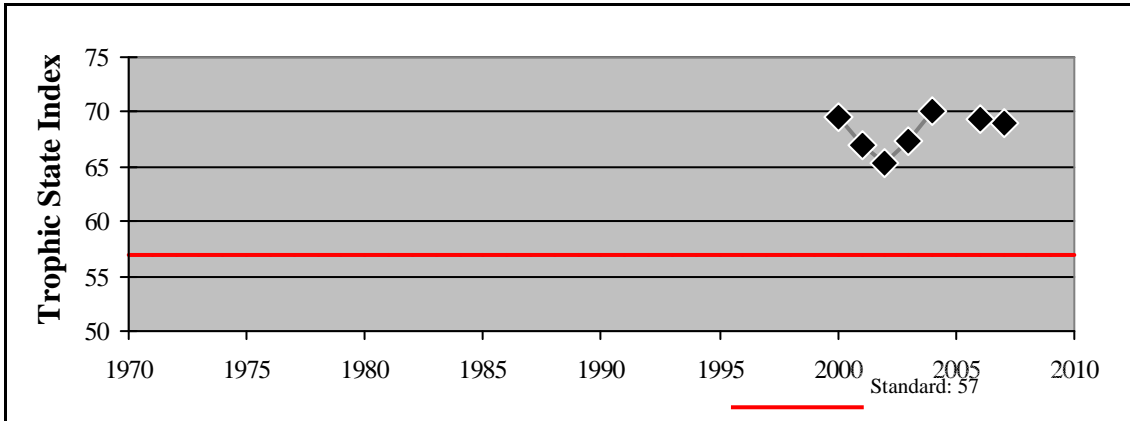
e.



f.



g.



h.

Figure 2.26 (e - h) Tanager Lake - Summer Mean Values