

Harrisons Bay (DNR ID 27-0133-00)

MCWD Site ID: LHR01

Sampling Location GPS Coordinates: 44.94089N, -93.6502W

Surface Area (acres): 211

Max. Depth (ft): 46



Site Information

Lake Minnetonka is a class 2B lake protected for aquatic life and recreation. Harrisons Bay is located near the city of Mound on Lake Minnetonka. The bay has inflow from Dutch Lake and is adjacent to West Arm and to Seton Lake by channel on the northwestern part of the lake.

Water quality information is available beginning in 1997. 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), NO_3/NO_2 , and ammonia (NH_4).

Chlorophyll-*a* surface concentrations were also analyzed and measurements of Secchi disc depth were recorded.

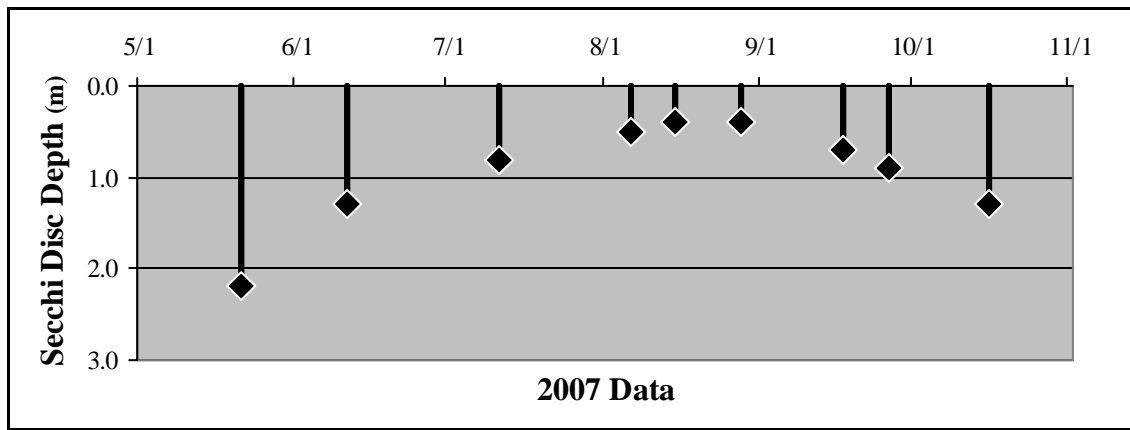
2007 Data Summary

- After high initial readings, Secchi Depth fell below the standard (1.2 m) by July and then increased slightly in September to the standard.
- Chlorophyll-*a* concentrations experienced a steady increase through mid-August before declining to just above the standard (15 ppb) by the end of the season.
- TP concentrations increased steadily throughout the season with only the initial sample being below the standard (40 ppb).

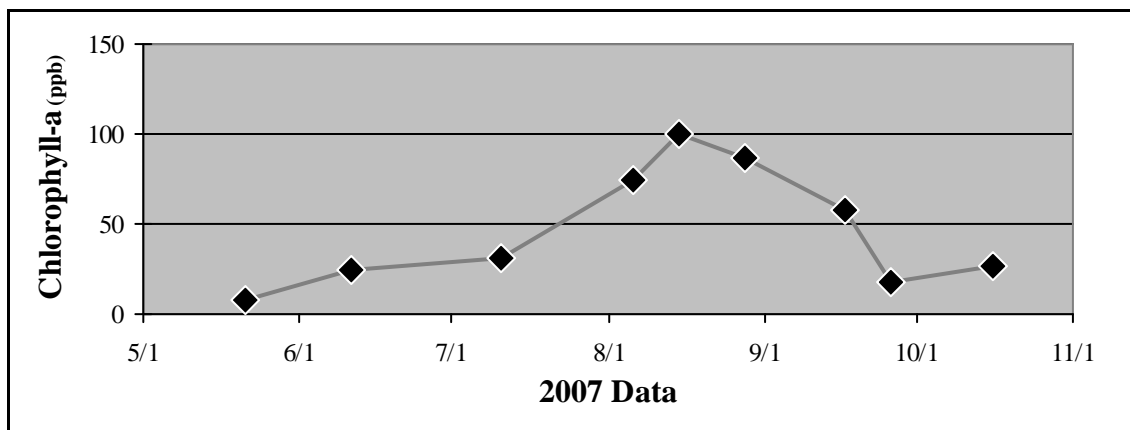
Table 2.9 Harrisons Bay 2007 Summary

2007 Summer (May-September) Water Quality Summary				
Parameter	Range	Mean	Grade	TSI value *
Secchi Depth (m)	0.4 - 2.2	0.7	D	65
Surface TP ($\mu\text{g/L}$)	35 - 91	63.4	C	64
Chlorophyll- <i>a</i> ($\mu\text{g/L}$)	8.0 - 99.5	56.0	D	70
		Overall Score	D+	66

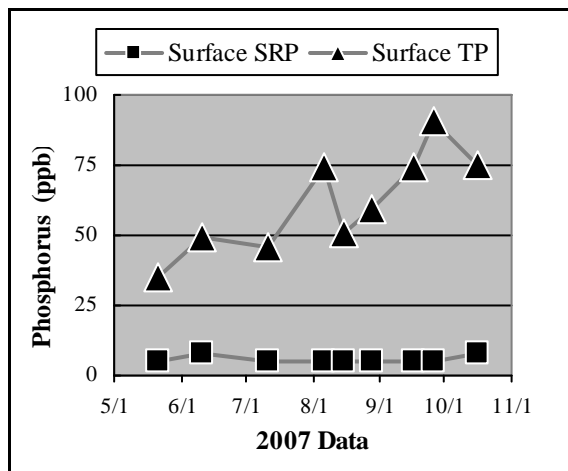
**excludes May Data*



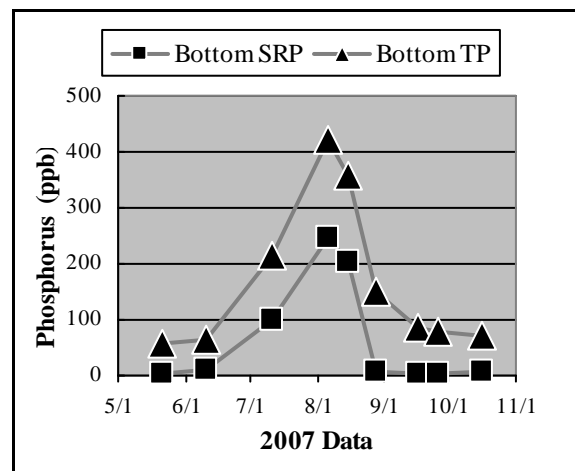
a.



b.

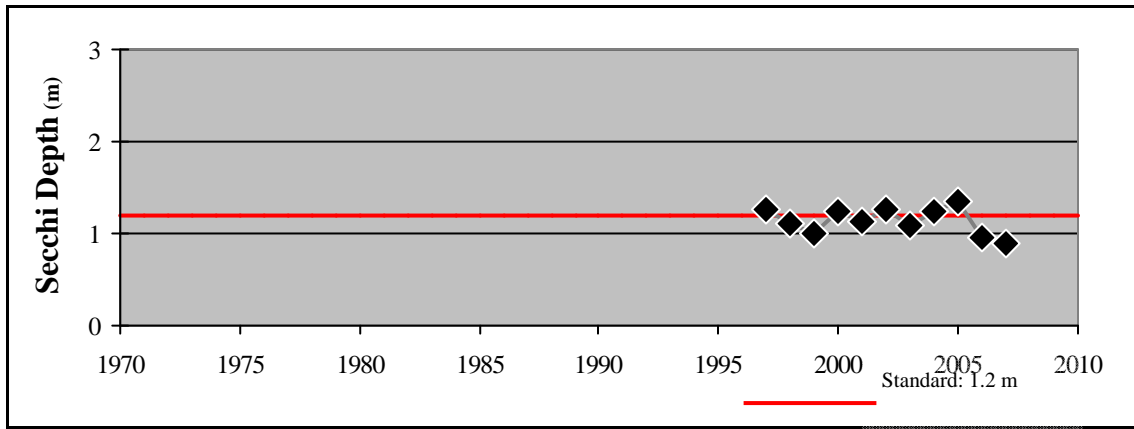


c.

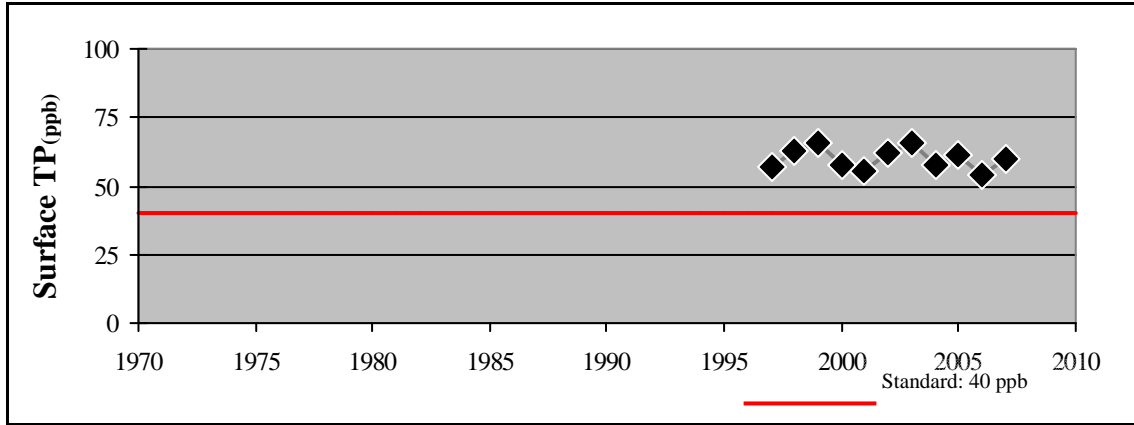


d.

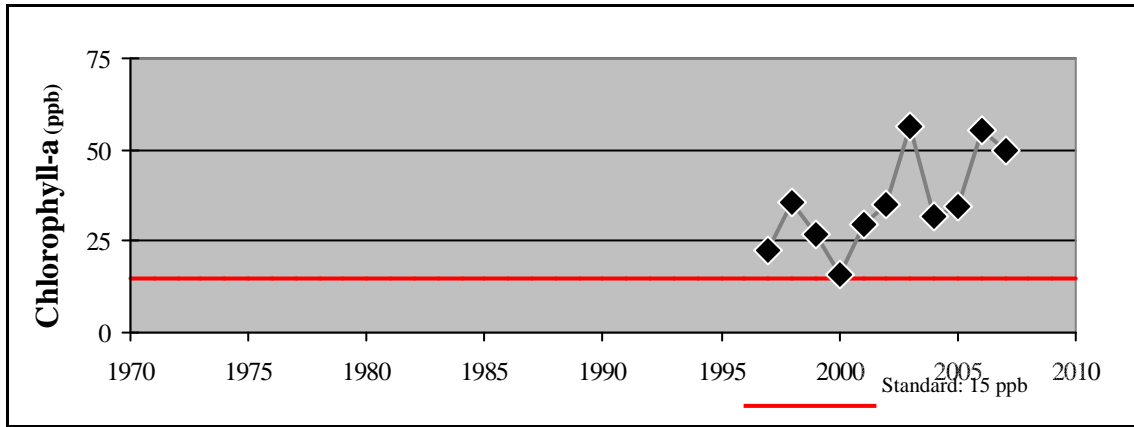
**Figure 2.10 (a-d) Harrisons Bay
2007 Grade: D+**



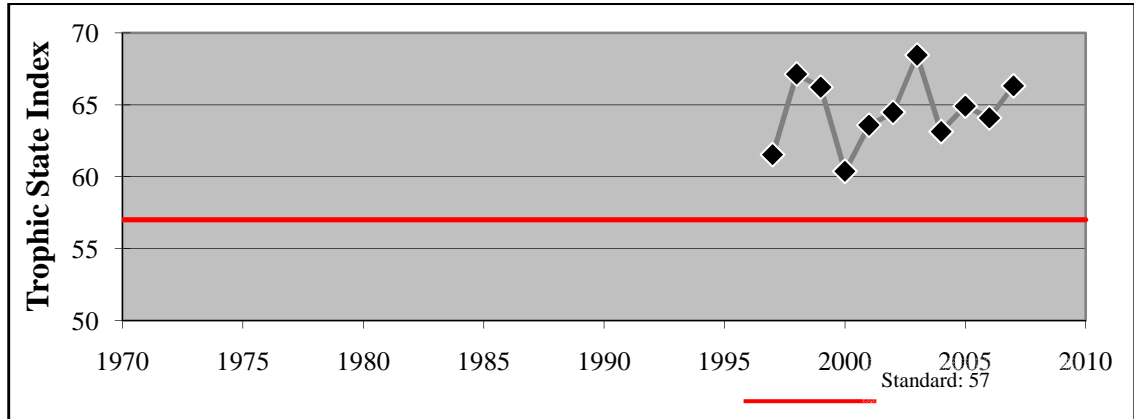
e.



f.



g.



h.

Figure 2.10 (e - h) Harrison's Bay - Summer Mean Values