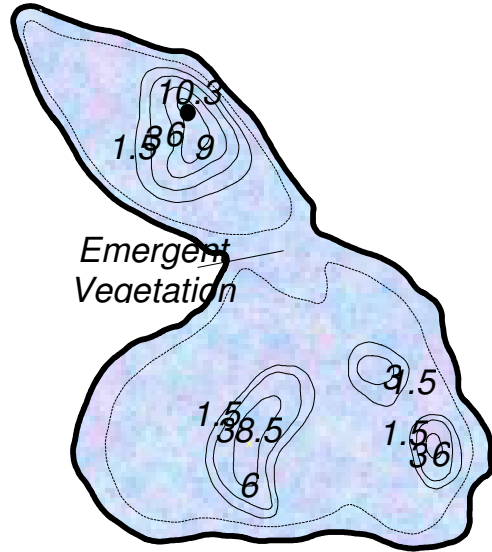


## Sylvan Lake

### 2009 Lake Grade: A

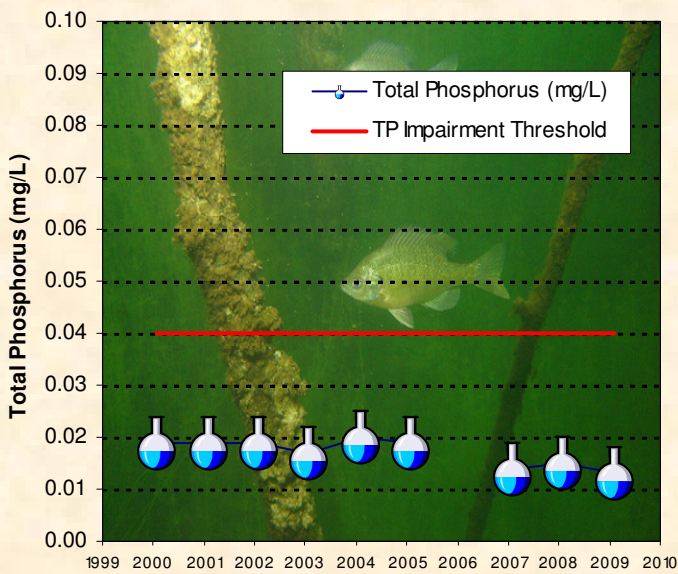
- DNR ID #: 820080
  - Municipality: City of Forest Lake
  - Location: Section 24 T32N-R21W
  - Lake Size: 84 Acres
  - Maximum Depth: 35 ft
  - Ordinary High Water Mark: 937.1 ft
  - 68% Littoral
- Note: Littoral area is the portion of the lake <15 ft and dominated by aquatic vegetation.



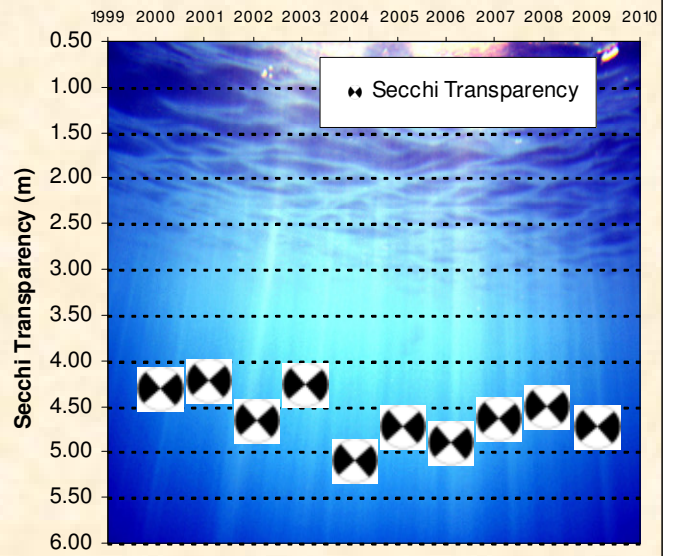
### Summary Points

- Sylvan Lake was considered a mesotrophic lake again in 2009, based on the Carlson Trophic State Index.
- The water quality of Sylvan Lake ranks among the top ten percent in the Twin Cities Metro Area.
- **Curly leaf pondweed (an invasive aquatic plant) is present in this lake.**
- Sylvan Lake has a healthy diverse aquatic plant population.
- The major land use is semi-urban and 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)
4/27/09	0.011	2.2	0.54	4.5
5/4/09	0.022	1.7	0.55	5.3
5/18/09	0.023	1.8	0.58	5.4
5/22/09	0.013	2.6	0.6	5.5
6/22/09	0.01	2.3	0.64	4.6
7/7/09	0.013	2.7	0.69	4.4
7/21/09	0.017	3.5	0.81	4.2
8/10/09	0.007	3	0.62	5
9/10/09	0.017	3.6	0.6	5.4
<b>2009 Summer Average</b>	0.013	3.020	0.672	4.720

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

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

2009 Elevation (ft)	High	High Date	Low	Low Date	Average
	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									
	2008	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000
Total Phosphorus (mg/l)	Mesotrophic	A	A	A	A	A	A	A	A	A	A
Chlorophyll-a (ug/l)	Oligitrophic	A	A	A	A	A	A	A	A	A	A
Secchi depth (ft)	Mesotrophic	A	A	A	A	A	A	A	A	A	A
Overall	Mesotrophic	A	A	A	A	A	A	A	A	A	A