



## Sixth Lake

### Location

Pond Number: 040787A  
 Watershed: Black River  
 County: Hamilton  
 Topographic Quadrangle: Old Forge

### Sample Site

Latitude: 43° 44.920'  
 Longitude: 74° 46.431'

### Morphometry

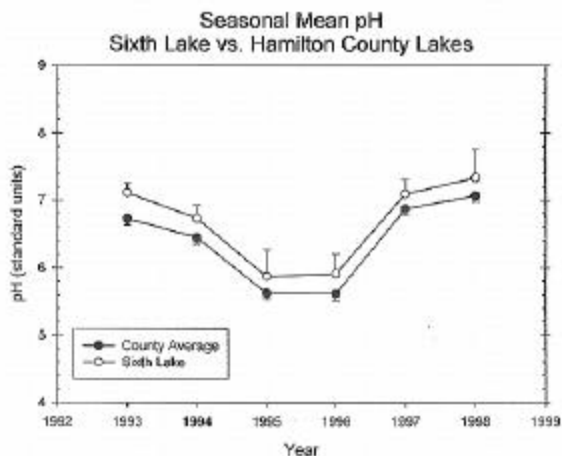
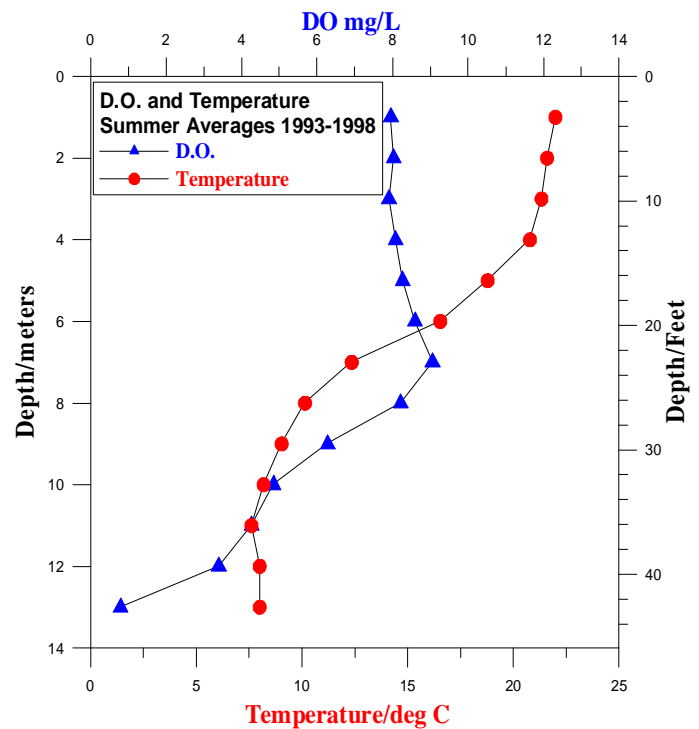
Surface Area: 108 Ac.  
 Mean Depth: 12 Ft.  
 Maximum Depth: 43 Ft.  
 Volume: 1,296 Ac./Ft.  
 Watershed Area: 11,953 Ac.  
 Hydraulic Retention Time: 0.04 Yr.  
 Shoreline Length: 3.8 Mi.  
 Elevation: 1,785 Ft.  
 Water Quality Classification: A  
 Trophic State: Mesotrophic

### Temperature

Sixth Lake was thermally stratified during the month of August in each of the study years (1993 - 1998). The epilimnion was warmest in August 1995, when the surface temperature was 24° C. The epilimnion was coolest in August 1993, when the surface temperature was 23° C. In August of each year, the epilimnion was approximately 4 meters thick, the mid-thermocline depth was around 6 meters, and the top of the hypolimnion began at about 9 meters. The thermal profiles for August were similar each year.

### Dissolved Oxygen

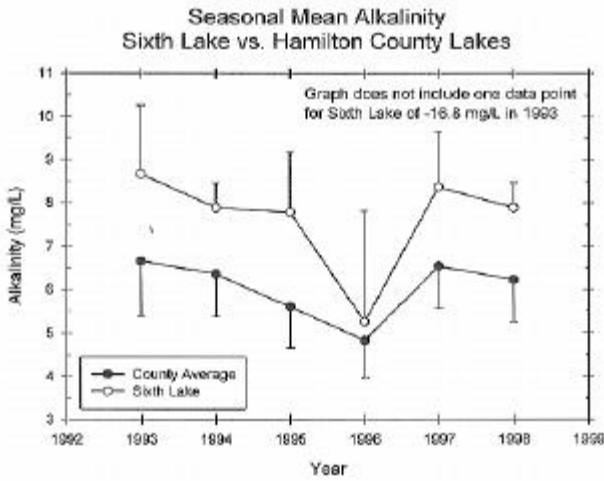
The hypolimnion of Sixth Lake was very poorly oxygenated during the month of August in each of the study years (1993 - 1998). Dissolved oxygen concentrations in the hypolimnion were below 2 mg/L each August, although the hypolimnetic volume is small. In 1997 and 1998, the bottom of the hypolimnion was anoxic. In general, the highest hypolimnetic dissolved oxygen levels occurred in August 1995 and the lowest occurred in August 1998. Sixth Lake experienced metalimnetic oxygen maxima at around 6 meters during August of each year except for 1993. The dissolved oxygen profiles were relatively similar each year, with the highest concentrations occurring in the epilimnion, and the con-



### pH

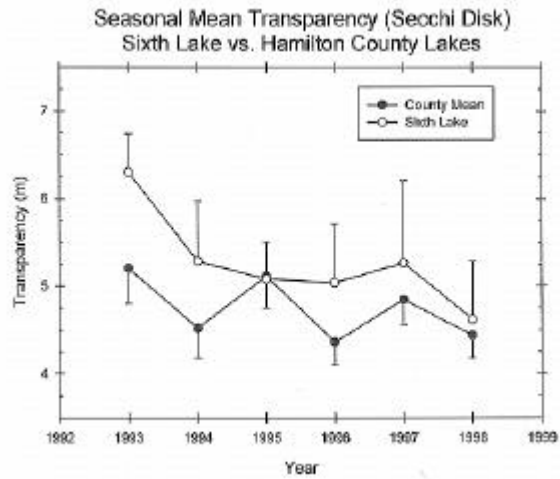
The pH trend for Sixth Lake was similar to the county mean trend, with a low of 5.88 in 1995, and a high of 7.33 in 1998. Overall, the mean pH values were slightly less acidic than the county mean values.

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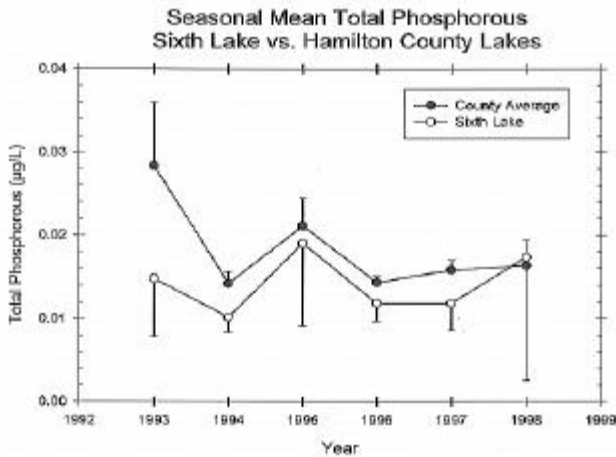
**Alkalinity**

The alkalinity trend for Sixth Lake was comparable to the county mean trend, with a low of 2.30 mg/L in 1993, and a high of 8.37 mg/L in 1997. A value of -16.8 was not included in the 1993 mean.



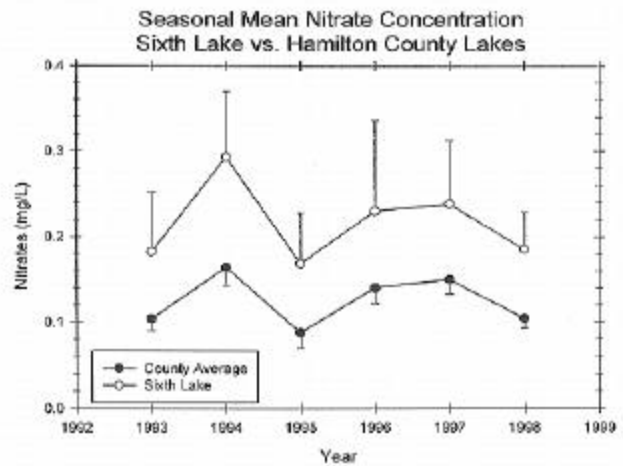
**Transparency**

The transparency trend in Sixth Lake was a gradual decrease in value, with a low of 4.62 m in 1998, and a high of 6.30 m in 1993. Overall, the mean transparency values were slightly higher than the county mean values.



**Total Phosphorus**

The total phosphorus trend for Sixth Lake was similar to the county mean trend. A low of 0.010 µg/L occurred in 1994, and a high of 0.019 µg/L occurred in 1995. Overall, the mean total phosphorus values were slightly lower than the county mean values.



**Nitrate**

The nitrate concentration trend in Sixth Lake was similar to the county mean trend, with a low of 0.17 mg/L in 1995, and a high of 0.29 mg/L in 1994. Overall, the mean nitrate concentrations were slightly higher than the county mean values.