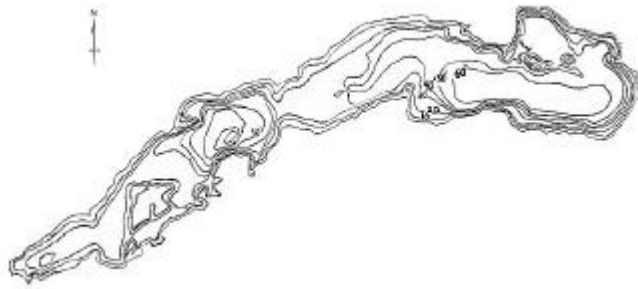


# Fourth Lake



## Location

Pond Number: 040782D  
 Watershed: Black River  
 County: Hamilton  
 Topographic Quadrangle: Big Moose

## Sample Site

Latitude: 43° 45.446'  
 Longitude: 74° 47.945'

## Temperature

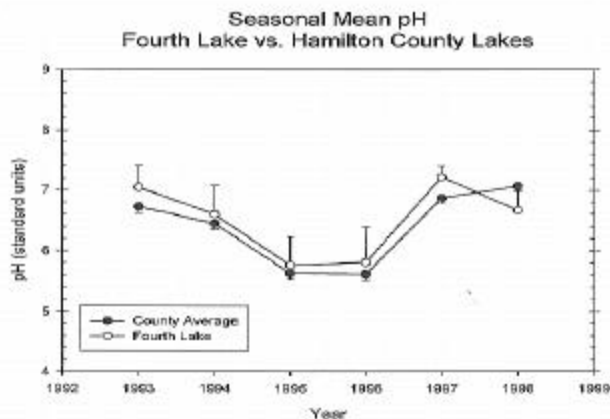
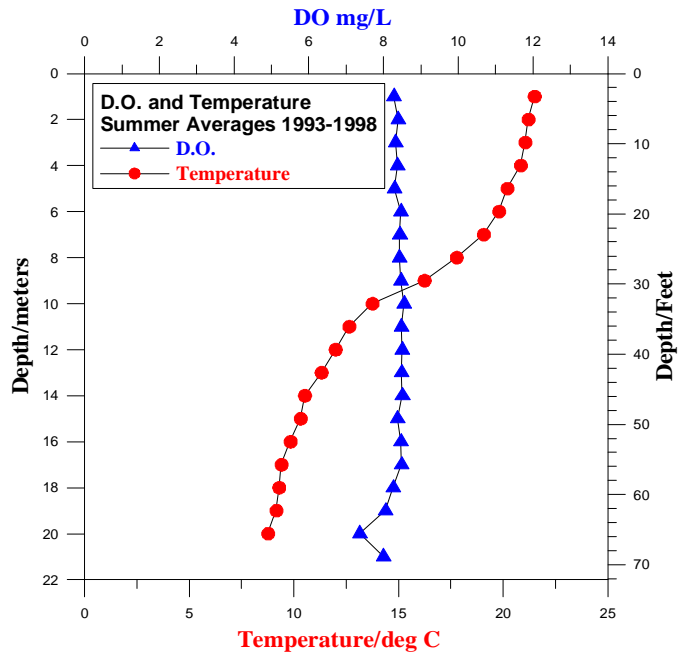
Fourth Lake was thermally stratified during the month of August in each of the study years (1993 - 1998). The epilimnion was warmest in August 1995 and 1997, when the surface temperature was 24° C. The epilimnion was coolest in August 1993, when the surface temperature was 22.5° C. In August of each year, the epilimnion was approximately 6 meters thick, the mid-thermocline depth was around 9 meters, and the top of the hypolimnion began at about 12 meters. The thermal profiles for August were similar each year.

## Morphometry

Surface Area: 2,138 Ac.  
 Mean Depth: 30 Ft.  
 Maximum Depth: 63 Ft.  
 Volume: 62,784 Ac./Ft.  
 Watershed Area: 12,805 Ac.  
 Hydraulic Retention Time: .96 Yr.  
 Shoreline Length: 16 Mi.  
 Elevation: 1707 Ft.  
 Water Quality Classification: A  
 Trophic State: Mesotrophic

## Dissolved Oxygen

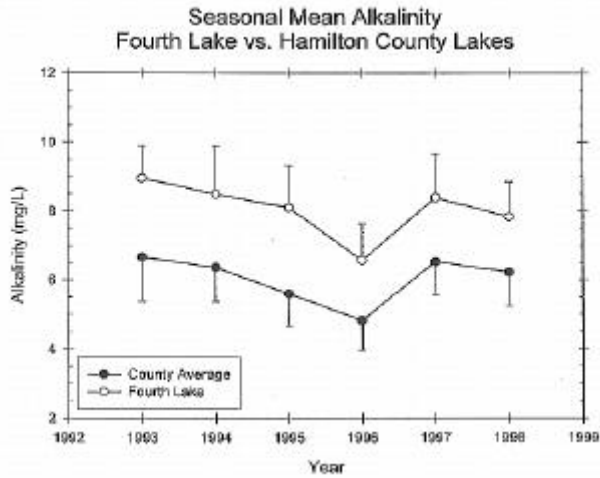
The hypolimnion of Fourth Lake was well oxygenated during the month of August in each of the study years (1993 - 1998). Dissolved oxygen concentrations in the hypolimnion were above 5 mg/L each August. In general, the highest hypolimnetic dissolved oxygen levels occurred in August 1997 and the lowest occurred in August 1996. The dissolved oxygen profiles were relatively similar for each of the study years.



## pH

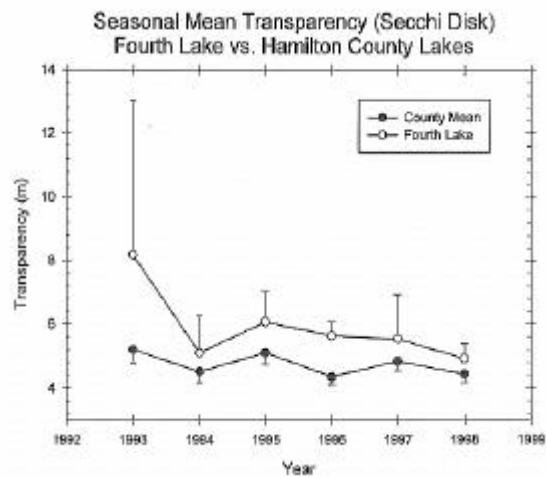
The pH trend for Fourth Lake was similar to the county mean trend, with a low of 5.76 in 1995, and a high of 7.22 in 1997. Overall the mean pH values were slightly higher (less acidic) than the county mean values.

## Fourth Lake



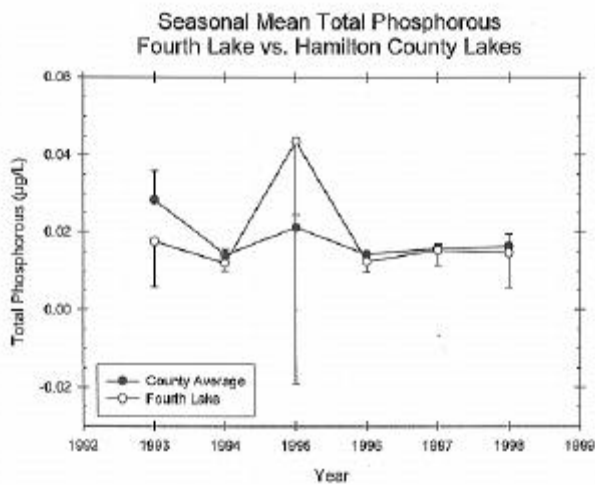
### Alkalinity

The alkalinity trend for Fourth Lake was similar to the county mean trend, with a low of 6.57 mg/L in 1996, and a high of 8.95 mg/L in 1993. Overall, the mean alkalinity values were higher than the county mean values.



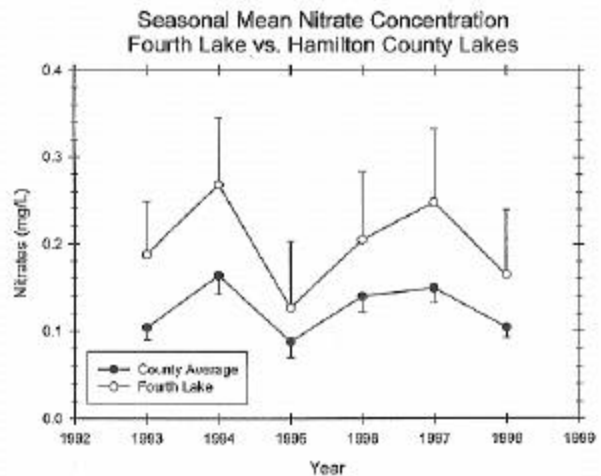
### Transparency

The transparency trend in Fourth Lake was similar to the county mean trend, with a low of 4.92 m in 1998, and a high of 8.18 m in 1993. Overall, the mean transparency values were higher than the county mean values.



### Total Phosphorus

The total phosphorus trend for Fourth Lake was comparable to the county mean trend. A low of 0.012 µg/L occurred in 1994, and a high of 0.044 µg/L occurred in 1995. A value of 0.164 µg/L in October 1995, which may have been a laboratory or entry error, is responsible for the high mean concentration in 1995.



### Nitrate

The nitrate concentration trend in Fourth Lake was similar to the county mean trend, with a low of 0.13 mg/L in 1995, and a high of 0.27 mg/L in 1994. Overall, the mean nitrate concentrations were slightly higher than the county mean values.