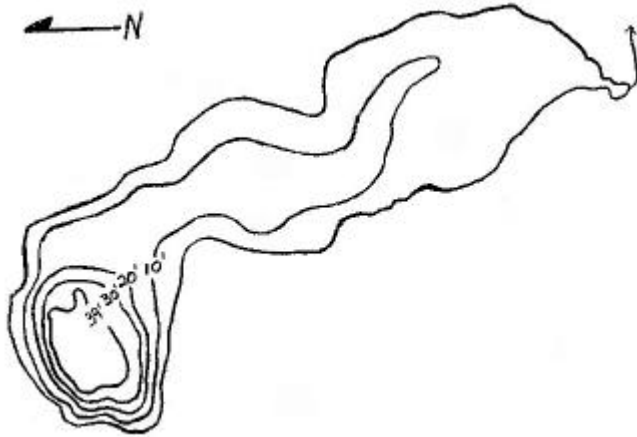


Morehouse Lake



Location

Pond Number: 070786
 Watershed: Mohawk River
 County: Hamilton
 Topographic Quadrangle: Piseco Lake

Sample Site

Latitude: 43° 21.993'
 Longitude: 74° 40.990'

Morphometry

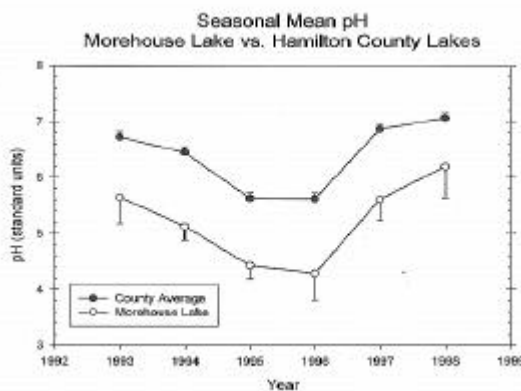
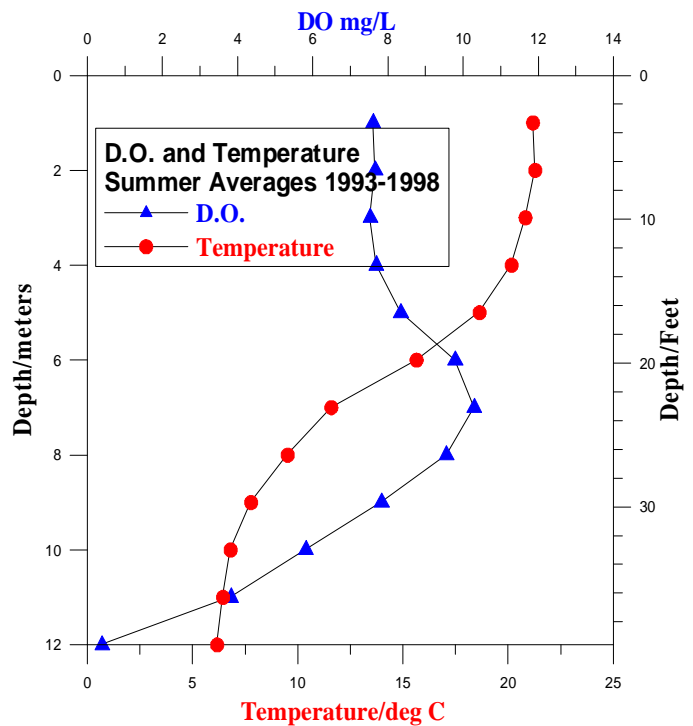
Surface Area: 122 Ac.
 Mean Depth: 17 Ft.
 Maximum Depth: 37 Ft.
 Volume: 2,072 Ac./Ft.
 Watershed Area: 2,319 Ac.
 Hydraulic Retention Time: Yr.
 Shoreline Length: 2.6 Mi.
 Elevation: 1,975 Ft.
 Water Quality Classification: B(T)
 Trophic State: Mesotrophic

Temperature

Morehouse Lake was thermally stratified during the month of August in each of the study years (1993 - 1998). The hypolimnetic volume in Morehouse Lake is small. The epilimnion was warmest in August 1995, when the surface temperature was 24° C. The epilimnion was coolest in August 1994, when the surface temperature was 19.5° C. In August of each year, the epilimnion was approximately 3 meters thick, the mid-thermocline depth was around 5 meters, and the top of the hypolimnion began at about 8 meters. The thermal profiles for August were similar each year.

Dissolved Oxygen

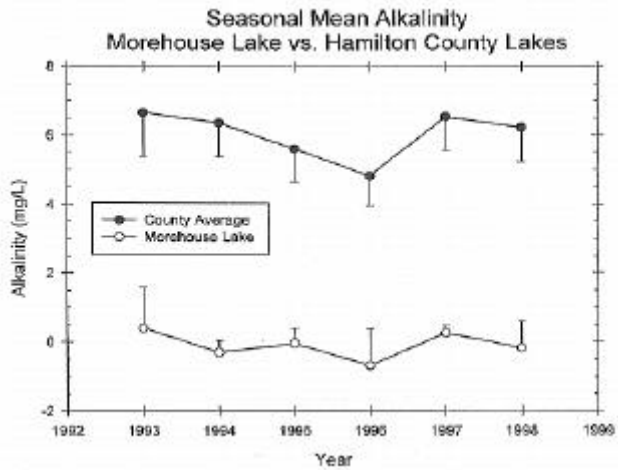
The hypolimnion of Morehouse Lake was fairly well oxygenated during the month of August in each of the study years (1993 - 1998). Dissolved oxygen concentrations in the hypolimnion were mostly above 4 mg/L each August, although the concentrations decreased throughout the hypolimnion each year. In general, the highest hypolimnetic dissolved oxygen levels occurred in August 1998 and the lowest occurred in August 1993. Morehouse Lake experienced metalimnetic oxygen maxima at around 6 meters during August. The dissolved oxygen profiles were relatively similar for each of the study years.



pH

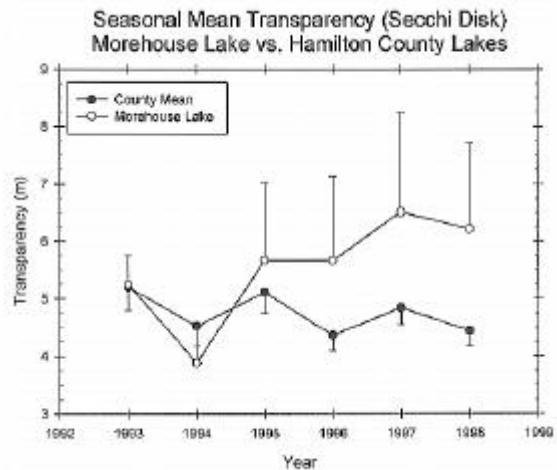
The pH trend for Morehouse Lake was similar to the county mean trend, with a low of 4.29 in 1996, and a high of 6.20 in 1998. Overall, the mean pH values were much lower (more acidic) than the county mean values.

Morehouse Lake



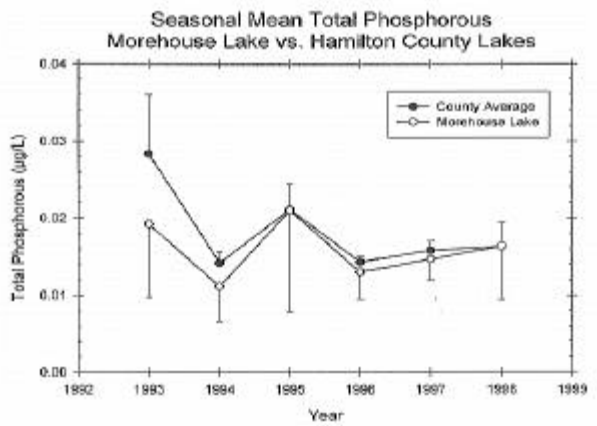
Alkalinity

The alkalinity trend for Morehouse Lake was similar to the county mean trend, with a low of -0.68 mg/L in 1996, and a high of 0.40 mg/L in 1993. Overall, the mean alkalinity values were much lower than the county mean values.



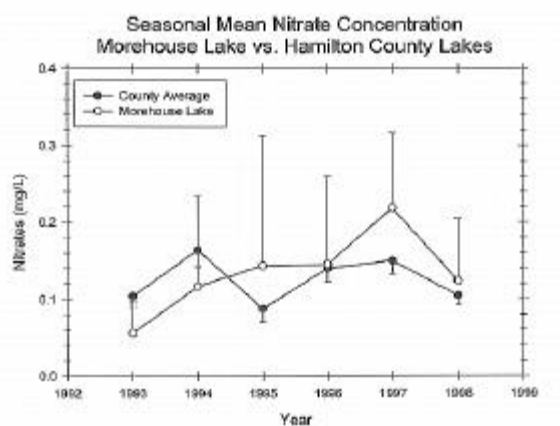
Transparency

The transparency trend in Morehouse Lake was divergent from the county mean trend, with a low of 3.88 m in 1994, and a high of 6.52 m in 1997. In 1994, the mean transparency value was lower than the county mean value. From 1995 through 1998 the mean transparency values were higher than the county mean values.



Total Phosphorus

The total phosphorus trend for Morehouse Lake was comparable to the county mean trend. A low of 0.011 µg/L occurred in 1994, and a high of 0.021 µg/L occurred in 1995.



Nitrate

The nitrate concentration trend in Morehouse Lake was comparable to the county mean trend, with a low of 0.06 mg/L in 1993, and a high of 0.22 mg/L in 1997.