

Sacandaga Lake

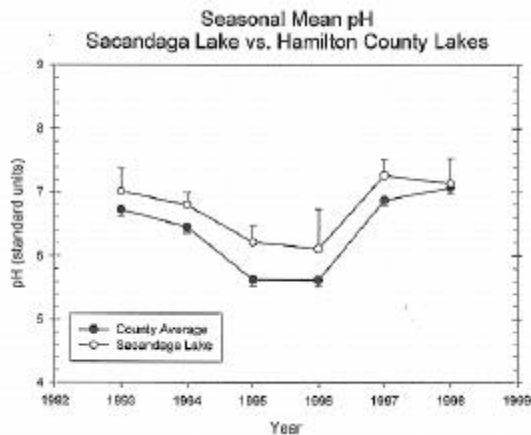


Temperature

Sacandaga 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 24.5° C. The epilimnion was coolest in August 1994, when the surface temperature was 20° C. In August of each year, the epilimnion was approximately 5 meters thick, the mid-thermocline depth was around 7 meters, and the top of the hypolimnion began at about 10 meters. The thermal profiles for August were similar each year.

Dissolved Oxygen

The hypolimnion of Sacandaga Lake was poorly oxygenated during the month of August in each of the study years (1993 - 1998). Dissolved oxygen concentrations in the hypolimnion were between 1 mg/L and 5 mg/L each August. In general, the highest hypolimnetic dissolved oxygen levels occurred in August 1997 and the lowest occurred in August 1993. The dissolved oxygen profiles were relatively similar each year, with the high concentrations in the epilimnion and decreasing concentrations throughout the thermocline.



Location

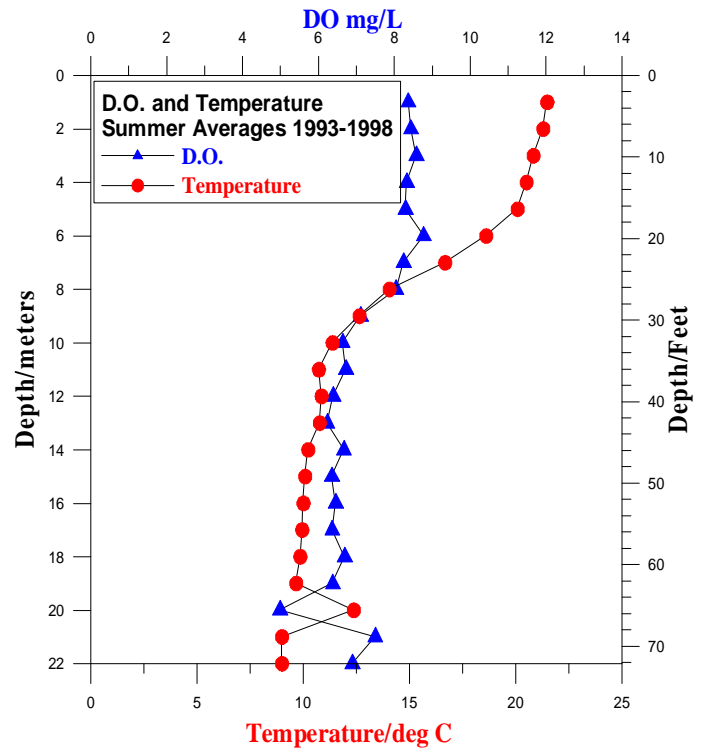
Pond Number: 050314
 Watershed: Upper Hudson River
 County: Hamilton
 Topographic Quadrangle: Lake Pleasant

Sample Site

Latitude: 43° 29.296'
 Longitude: 74° 24.378'

Morphometry

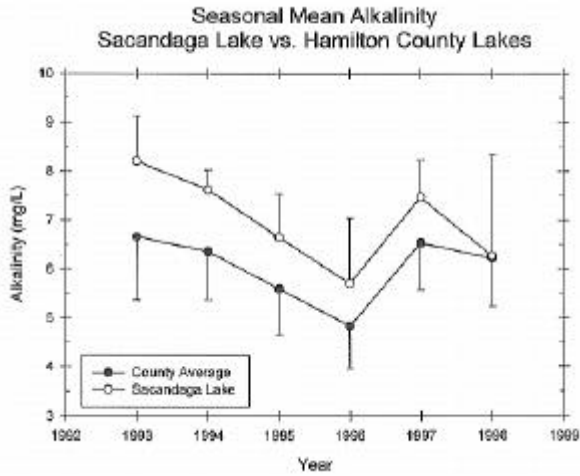
Surface Area: 1620 Ac.
 Mean Depth: 28 Ft.
 Maximum Depth: 73 Ft.
 Volume: 34,195 Ac./Ft.
 Watershed Area: 12,784 Ac.
 Hydraulic Retention Time: 0.5 Yr.
 Shoreline Length: 13.2 Mi.
 Elevation: 1,726 Ft.
 Water Quality Classification: AA
 Trophic State: Mesotrophic



pH

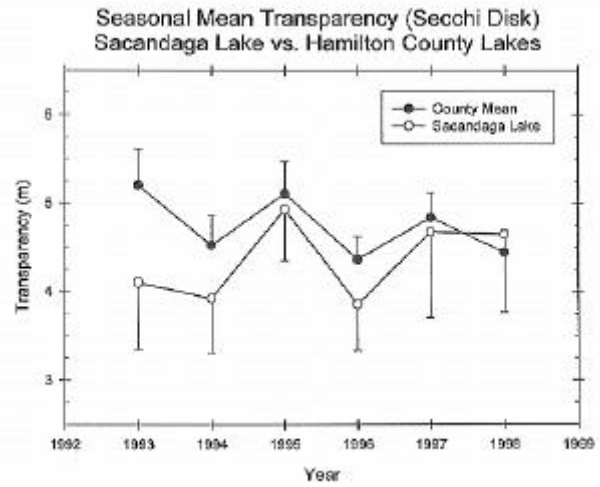
The pH trend for Sacandaga Lake was similar to the county mean trend, with a low of 6.11 in 1996, and a high of 7.26 in 1997. Overall, the mean pH values were slightly higher than the county mean values.

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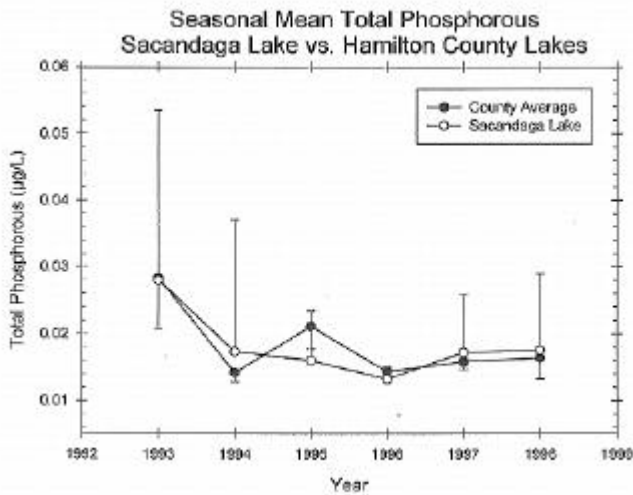
Alkalinity

The alkalinity trend for Sacandaga Lake was similar to the county mean trend, with a low of 5.70 mg/L in 1996, and a high of 8.20 mg/L in 1993. Overall, the mean alkalinity values were higher than the county mean values.



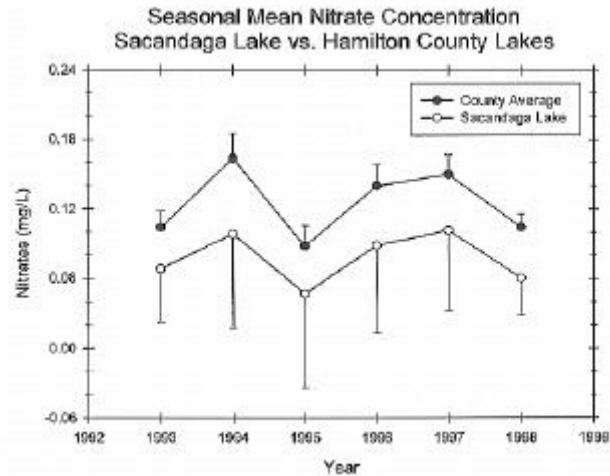
Transparency

The transparency trend in Sacandaga Lake was similar to the county mean trend, with a low of 3.85 m in 1996, and a high of 4.93 m in 1995. Overall, the mean transparency values were slightly lower than the county mean values except in 1998, when the mean transparency was slightly higher than the county average.



Total Phosphorus

The total phosphorus trend for Sacandaga Lake was comparable to the county mean trend. A low of 0.013 µg/L occurred in 1996, and a high of 0.028 µg/L occurred in 1993.



Nitrate

The nitrate concentration trend in Sacandaga Lake was similar to the county mean trend, with a low of 0.05 mg/L in 1995, and a high of 0.10 mg/L in 1994 and 1998. Overall, the mean nitrate concentrations were slightly lower than the county mean values.