

Lake Adirondack

Location

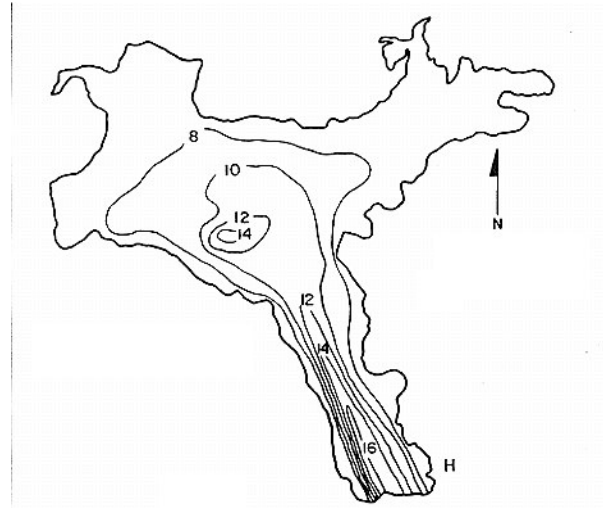
Pond Number: 050587A
Watershed: Upper Hudson River
County: Hamilton
Topographic Quadrangle: Blue Mountain

Sample Site

Latitude: 43° 46.941'
Longitude: 74° 15.432'

Morphometry

Surface Area: 168 Ac.
Mean Depth: 8 Ft.
Maximum Depth: 19 Ft.
Volume: 1,344 Ac./Ft.
Watershed Area: 667 Ac.
Hydraulic Retention Time: 0.8 Yr.
Shoreline Length: 3.7 Mi.
Elevation: 1,660 Ft.
Water Quality Classification: B
Trophic State: Mesotrophic



Temperature and Dissolved Oxygen

Lake Adirondack had a minimum DO of 0.3 mg/L, with a minimum temperature of 7.0°C and a maximum temperature of 26.3°C.

pH

Figure 84 presents the seasonal mean pH trend in Lake Adirondack, while Table 65 presents descriptive statistics for pH in Lake Adirondack. The pH in Lake Adirondack exhibited an increasing trend from 1996 to 2002. The pH in Lake Adirondack was slightly higher than the county average, though this difference was not statistically significant.

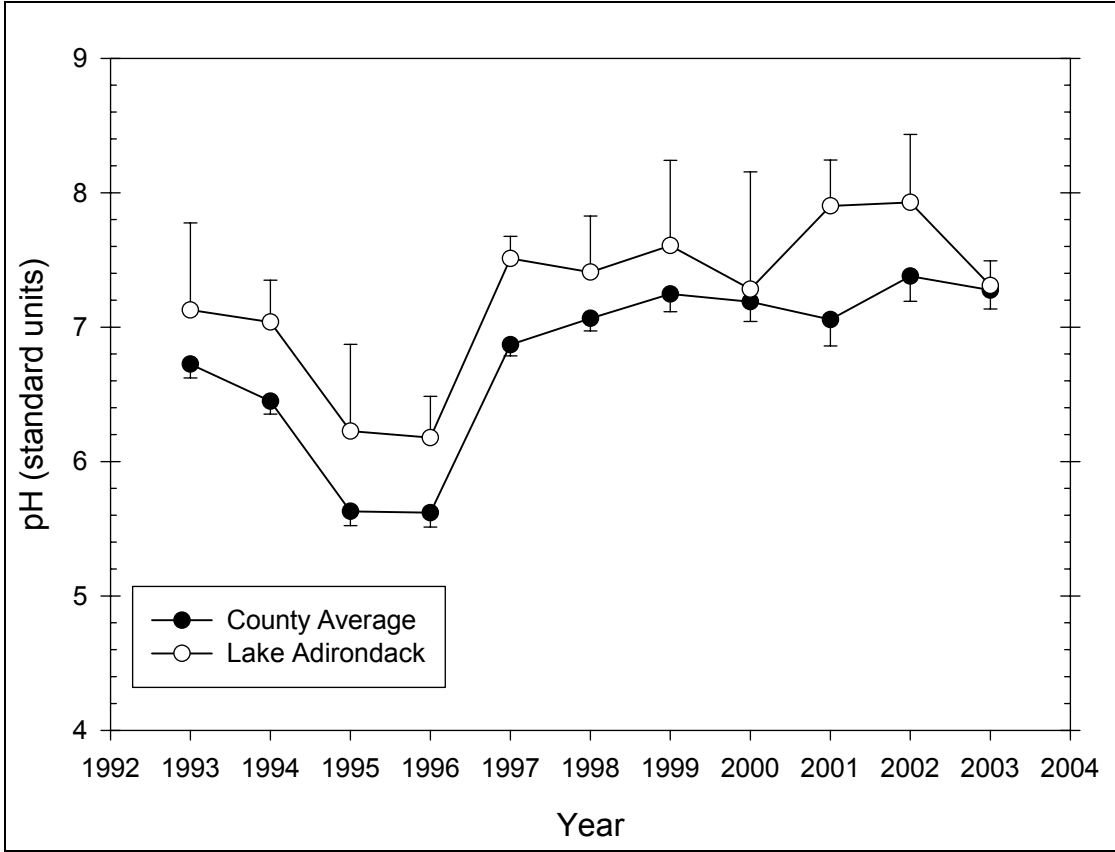


Figure 84 Seasonal mean pH trend in Lake Adirondack

Table 65 – Descriptive Statistics for pH in Lake Adirondack

| Year | Size | Missing | Mean | Std Dev | Std. Error | C.I. of Mean |
|------|-------|---------|-------|---------|------------|--------------|
| 1993 | 6 | 2 | 7.128 | 0.407 | 0.203 | 0.647 |
| 1994 | 6 | 0 | 7.038 | 0.296 | 0.121 | 0.311 |
| 1995 | 6 | 0 | 6.227 | 0.615 | 0.251 | 0.646 |
| 1996 | 6 | 0 | 6.178 | 0.292 | 0.119 | 0.306 |
| 1997 | 6 | 0 | 7.510 | 0.158 | 0.0643 | 0.165 |
| 1998 | 6 | 0 | 7.410 | 0.397 | 0.162 | 0.417 |
| 1999 | 5 | 0 | 7.606 | 0.511 | 0.229 | 0.635 |
| 2000 | 5 | 0 | 7.282 | 0.703 | 0.315 | 0.873 |
| 2001 | 4 | 0 | 7.902 | 0.215 | 0.107 | 0.342 |
| 2002 | 4 | 0 | 7.928 | 0.318 | 0.159 | 0.506 |
| 2003 | 5 | 0 | 7.310 | 0.148 | 0.0662 | 0.184 |
| | | | | | | |
| Year | Range | Max | Min | Median | 25% | 75% |
| 1993 | 0.850 | 7.370 | 6.520 | 7.310 | 6.900 | 7.355 |
| 1994 | 0.840 | 7.410 | 6.570 | 7.020 | 6.930 | 7.280 |
| 1995 | 1.860 | 7.200 | 5.340 | 6.150 | 5.990 | 6.530 |
| 1996 | 0.730 | 6.500 | 5.770 | 6.185 | 5.940 | 6.490 |
| 1997 | 0.440 | 7.770 | 7.330 | 7.530 | 7.360 | 7.540 |
| 1998 | 1.040 | 7.920 | 6.880 | 7.330 | 7.170 | 7.830 |
| 1999 | 1.350 | 8.360 | 7.010 | 7.620 | 7.220 | 7.902 |
| 2000 | 1.550 | 7.900 | 6.350 | 7.560 | 6.635 | 7.877 |
| 2001 | 0.490 | 8.200 | 7.710 | 7.850 | 7.750 | 8.055 |

| 2002 | 0.680 | 8.200 | 7.520 | 7.995 | 7.675 | 8.180 |
|------|----------|----------|-----------|-----------|--------|----------------|
| 2003 | 0.360 | 7.540 | 7.180 | 7.280 | 7.188 | 7.405 |
| | | | | | | |
| Year | Skewness | Kurtosis | K-S Dist. | K-S Prob. | Sum | Sum of Squares |
| 1993 | -1.950 | 3.826 | 0.396 | 0.028 | 28.510 | 203.701 |
| 1994 | -0.452 | 0.207 | 0.191 | 0.593 | 42.230 | 297.667 |
| 1995 | 0.307 | 1.204 | 0.210 | 0.487 | 37.360 | 234.522 |
| 1996 | -0.218 | -1.304 | 0.191 | 0.592 | 37.070 | 229.456 |
| 1997 | 0.645 | 0.701 | 0.258 | 0.235 | 45.060 | 338.525 |
| 1998 | 0.206 | -1.147 | 0.237 | 0.338 | 44.460 | 330.237 |
| 1999 | 0.588 | 0.429 | 0.189 | 0.644 | 38.030 | 290.301 |
| 2000 | -0.619 | -2.283 | 0.254 | 0.332 | 36.410 | 267.116 |
| 2001 | 1.197 | 1.197 | 0.236 | 0.494 | 31.610 | 249.936 |
| 2002 | -0.740 | -1.771 | 0.267 | 0.355 | 31.710 | 251.685 |
| 2003 | 1.072 | 0.597 | 0.191 | 0.635 | 36.550 | 267.268 |

Alkalinity

Figure 85 presents the seasonal mean alkalinity trend in Lake Adirondack, while Table 66 presents descriptive statistics for alkalinity in Lake Adirondack. The alkalinity in Lake Adirondack exhibited a decreasing trend from 1998 to 2001, followed by an increasing trend in 2002 and 2003. The alkalinity in Lake Adirondack was significantly higher than the county average.

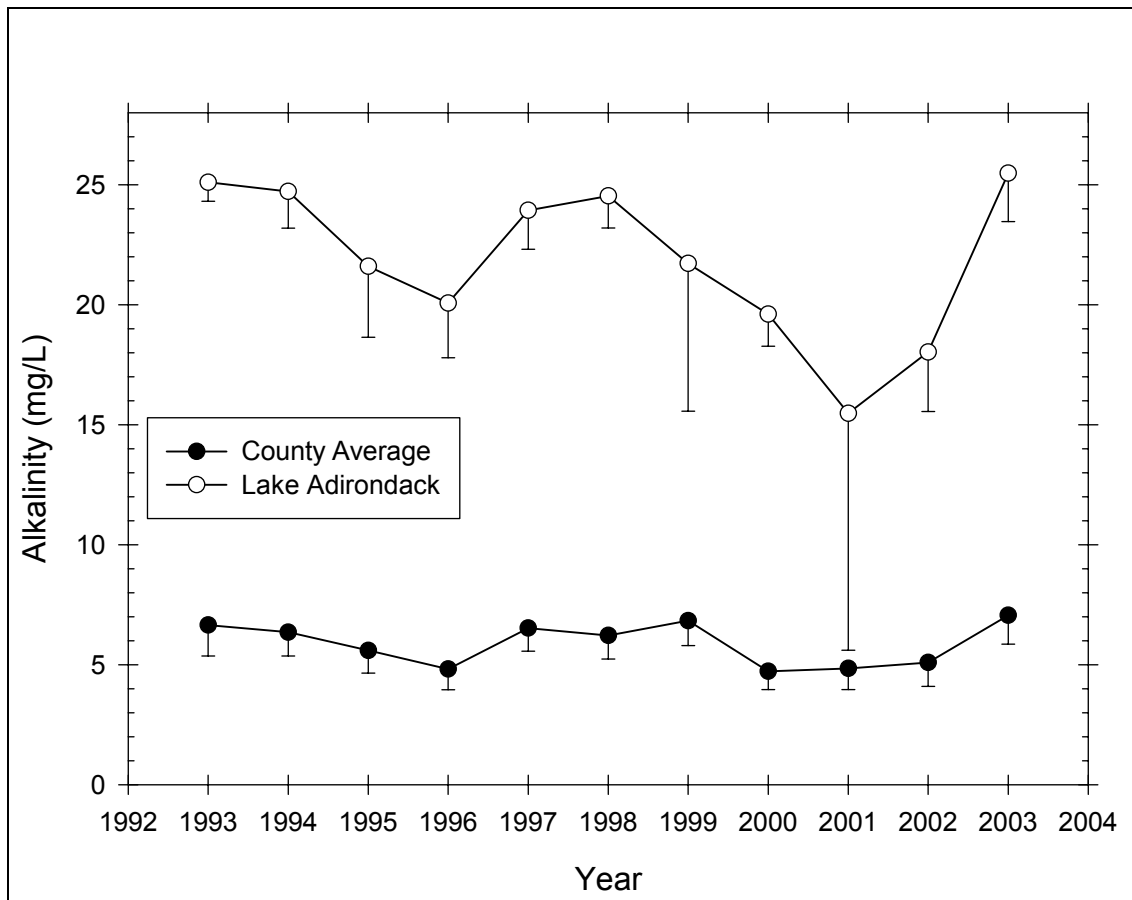


Figure 85 Seasonal mean alkalinity trend in Lake Adirondack

Table 66 – Descriptive Statistics for Alkalinity in Lake Adirondack

| Year | Size | Missing | Mean | Std Dev | Std. Error | C.I. of Mean |
|------|----------|----------|-----------|-----------|------------|----------------|
| 1993 | 6 | 2 | 25.100 | 0.497 | 0.248 | 0.790 |
| 1994 | 6 | 0 | 24.717 | 1.455 | 0.594 | 1.527 |
| 1995 | 6 | 0 | 21.600 | 2.818 | 1.150 | 2.957 |
| 1996 | 6 | 0 | 20.067 | 2.171 | 0.886 | 2.279 |
| 1997 | 6 | 0 | 23.933 | 1.547 | 0.632 | 1.624 |
| 1998 | 6 | 0 | 24.533 | 1.271 | 0.519 | 1.334 |
| 1999 | 6 | 1 | 21.720 | 4.957 | 2.217 | 6.155 |
| 2000 | 6 | 1 | 19.600 | 1.070 | 0.479 | 1.329 |
| 2001 | 6 | 1 | 15.480 | 7.954 | 3.557 | 9.876 |
| 2002 | 6 | 2 | 18.025 | 1.559 | 0.779 | 2.480 |
| 2003 | 6 | 1 | 25.480 | 1.628 | 0.728 | 2.022 |
| Year | Range | Max | Min | Median | 25% | 75% |
| 1993 | 1.100 | 25.700 | 24.600 | 25.050 | 24.700 | 25.500 |
| 1994 | 3.700 | 26.800 | 23.100 | 24.450 | 23.600 | 25.900 |
| 1995 | 6.500 | 24.500 | 18.000 | 22.100 | 19.000 | 23.900 |
| 1996 | 6.600 | 23.100 | 16.500 | 20.250 | 19.300 | 21.000 |
| 1997 | 3.800 | 25.300 | 21.500 | 24.700 | 22.500 | 24.900 |
| 1998 | 3.400 | 26.700 | 23.300 | 24.000 | 23.800 | 25.400 |
| 1999 | 12.200 | 25.500 | 13.300 | 22.700 | 19.750 | 25.275 |
| 2000 | 2.300 | 21.000 | 18.700 | 19.000 | 18.775 | 20.625 |
| 2001 | 20.000 | 21.500 | 1.500 | 18.100 | 13.725 | 19.250 |
| 2002 | 3.600 | 20.200 | 16.600 | 17.650 | 16.950 | 19.100 |
| 2003 | 3.800 | 27.000 | 23.200 | 25.600 | 24.250 | 27.000 |
| Year | Skewness | Kurtosis | K-S Dist. | K-S Prob. | Sum | Sum of Squares |
| 1993 | 0.392 | -2.444 | 0.227 | 0.532 | 100.400 | 2520.780 |
| 1994 | 0.425 | -1.581 | 0.236 | 0.343 | 148.300 | 3676.070 |
| 1995 | -0.251 | -2.498 | 0.283 | 0.142 | 129.600 | 2839.060 |
| 1996 | -0.499 | 1.548 | 0.195 | 0.567 | 120.400 | 2439.600 |
| 1997 | -1.048 | -0.830 | 0.333 | 0.036 | 143.600 | 3448.800 |
| 1998 | 1.206 | 0.561 | 0.329 | 0.041 | 147.200 | 3619.380 |
| 1999 | -1.710 | 3.134 | 0.314 | 0.110 | 108.600 | 2457.080 |
| 2000 | 0.686 | -2.572 | 0.313 | 0.115 | 98.000 | 1925.380 |
| 2001 | -2.034 | 4.390 | 0.415 | 0.005 | 77.400 | 1451.200 |
| 2002 | 1.235 | 1.627 | 0.256 | 0.404 | 72.100 | 1306.890 |
| 2003 | -0.531 | -1.193 | 0.225 | 0.477 | 127.400 | 3256.760 |

Total Phosphorus

Figure 86 presents the seasonal mean total phosphorus trend in Lake Adirondack, while Table 67 presents descriptive statistics for total phosphorus in Lake Adirondack. The total phosphorus in Lake Adirondack exhibited a decreasing trend from 1999 to 2003. The total phosphorus in Lake Adirondack was generally slightly higher than the county average, though this difference was not statistically significant.

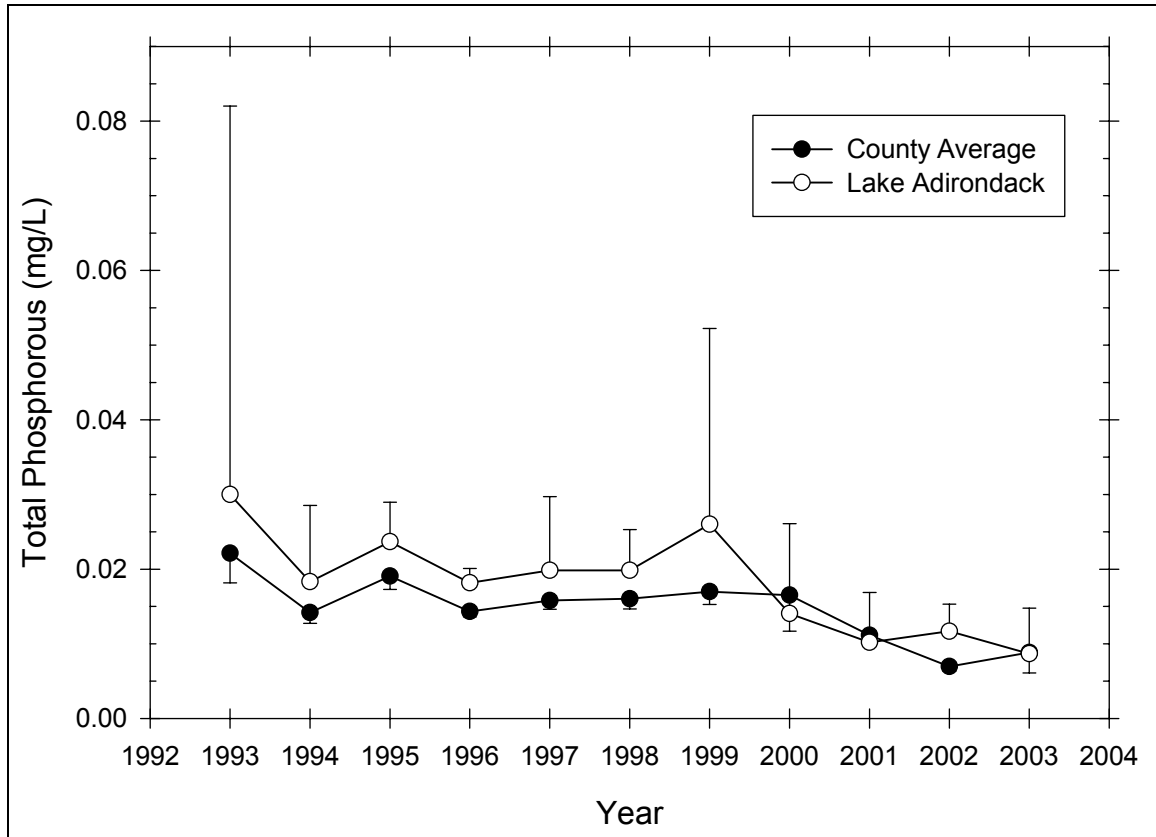


Figure 86 Seasonal mean total phosphorus trend in Lake Adirondack

Table 67 – Descriptive Statistics for Total Phosphorus in Lake Adirondack

| Year | Size | Missing | Mean | Std Dev | Std. Error | C.I. of Mean |
|------|---------|---------|---------|---------|------------|--------------|
| 1993 | 6 | 2 | 0.0300 | 0.0327 | 0.0163 | 0.0520 |
| 1994 | 6 | 0 | 0.0183 | 0.00971 | 0.00396 | 0.0102 |
| 1995 | 6 | 0 | 0.0237 | 0.00505 | 0.00206 | 0.00530 |
| 1996 | 6 | 0 | 0.0182 | 0.00183 | 0.000749 | 0.00193 |
| 1997 | 6 | 0 | 0.0198 | 0.00941 | 0.00384 | 0.00988 |
| 1998 | 6 | 0 | 0.0198 | 0.00519 | 0.00212 | 0.00545 |
| 1999 | 6 | 1 | 0.0260 | 0.0211 | 0.00945 | 0.0262 |
| 2000 | 6 | 1 | 0.0141 | 0.00970 | 0.00434 | 0.0120 |
| 2001 | 6 | 2 | 0.0102 | 0.00420 | 0.00210 | 0.00669 |
| 2002 | 6 | 2 | 0.0117 | 0.00229 | 0.00115 | 0.00365 |
| 2003 | 6 | 1 | 0.00868 | 0.00490 | 0.00219 | 0.00608 |
| Year | Range | Max | Min | Median | 25% | 75% |
| 1993 | 0.0670 | 0.0790 | 0.0120 | 0.0145 | 0.0130 | 0.0470 |
| 1994 | 0.0300 | 0.0330 | 0.00300 | 0.0190 | 0.0150 | 0.0210 |
| 1995 | 0.0140 | 0.0310 | 0.0170 | 0.0235 | 0.0200 | 0.0270 |
| 1996 | 0.00500 | 0.0210 | 0.0160 | 0.0180 | 0.0170 | 0.0190 |
| 1997 | 0.0260 | 0.0360 | 0.01000 | 0.0175 | 0.0130 | 0.0250 |
| 1998 | 0.0150 | 0.0290 | 0.0140 | 0.0195 | 0.0160 | 0.0210 |
| 1999 | 0.0530 | 0.0630 | 0.01000 | 0.0180 | 0.0153 | 0.0323 |
| 2000 | 0.0200 | 0.0240 | 0.00400 | 0.0150 | 0.00422 | 0.0233 |
| 2001 | 0.00980 | 0.0140 | 0.00420 | 0.0113 | 0.00760 | 0.0128 |
| 2002 | 0.00490 | 0.0146 | 0.00970 | 0.0112 | 0.00985 | 0.0135 |

| | | | | | | |
|-------------|-----------------|-----------------|------------------|------------------|------------|-----------------------|
| 2003 | 0.0123 | 0.0151 | 0.00280 | 0.00730 | 0.00528 | 0.0129 |
| Year | Skewness | Kurtosis | K-S Dist. | K-S Prob. | Sum | Sum of Squares |
| 1993 | 1.991 | 3.971 | 0.427 | 0.011 | 0.120 | 0.00681 |
| 1994 | -0.152 | 1.764 | 0.225 | 0.401 | 0.110 | 0.00249 |
| 1995 | 0.195 | -0.656 | 0.129 | 0.771 | 0.142 | 0.00349 |
| 1996 | 0.513 | -0.621 | 0.238 | 0.333 | 0.109 | 0.00200 |
| 1997 | 1.103 | 0.945 | 0.244 | 0.301 | 0.119 | 0.00280 |
| 1998 | 1.106 | 1.871 | 0.244 | 0.298 | 0.119 | 0.00250 |
| 1999 | 1.998 | 4.230 | 0.375 | 0.020 | 0.130 | 0.00517 |
| 2000 | -0.114 | -2.985 | 0.243 | 0.385 | 0.0703 | 0.00136 |
| 2001 | -1.416 | 2.589 | 0.325 | 0.147 | 0.0408 | 0.000469 |
| 2002 | 0.718 | -1.878 | 0.267 | 0.356 | 0.0467 | 0.000561 |
| 2003 | 0.289 | -1.325 | 0.211 | 0.546 | 0.0434 | 0.000473 |

Nitrate

Figure 87 presents the seasonal mean nitrate trend in Lake Adirondack, while Table 68 presents descriptive statistics for nitrate in Lake Adirondack. The nitrate in Lake Adirondack exhibited a slight decreasing trend from 1999 to 2003. The nitrate in Lake Adirondack was significantly lower than the county average, though this difference may not be statistically significant for all years.

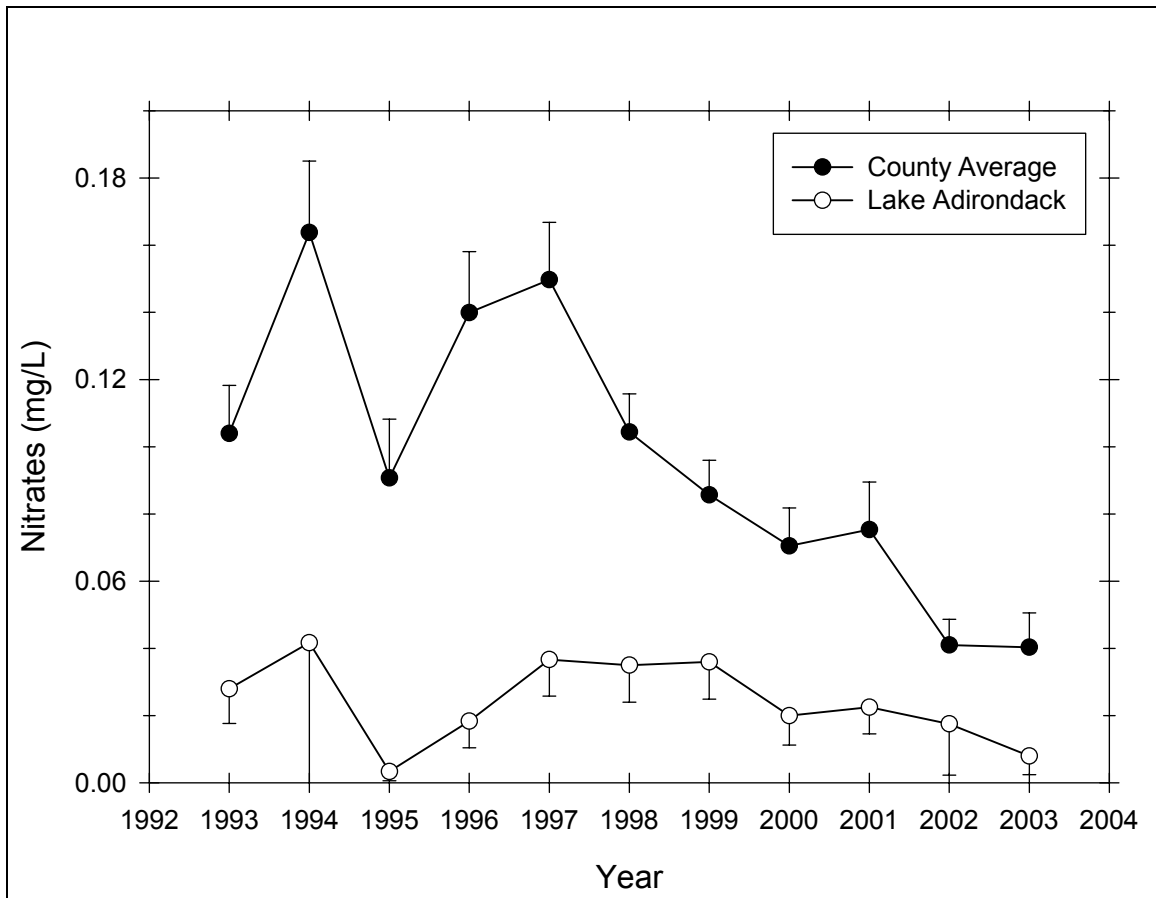


Figure 87 Seasonal mean nitrate trend in Lake Adirondack

Table 68 – Descriptive Statistics for Nitrate in Lake Adirondack

| Year | Size | Missing | Mean | Std Dev | Std. Error | C.I. of Mean |
|------|-------------|----------|-----------|-----------|------------|----------------|
| 1993 | 6 | 1 | 0.0280 | 0.00837 | 0.00374 | 0.0104 |
| 1994 | 6 | 0 | 0.0417 | 0.0496 | 0.0202 | 0.0520 |
| 1995 | 6 | 0 | 0.00333 | 0.00258 | 0.00105 | 0.00271 |
| 1996 | 6 | 0 | 0.0183 | 0.00753 | 0.00307 | 0.00790 |
| 1997 | 6 | 0 | 0.0367 | 0.0103 | 0.00422 | 0.0108 |
| 1998 | 6 | 0 | 0.0350 | 0.0105 | 0.00428 | 0.0110 |
| 1999 | 6 | 1 | 0.0360 | 0.00894 | 0.00400 | 0.0111 |
| 2000 | 6 | 1 | 0.0200 | 0.00707 | 0.00316 | 0.00878 |
| 2001 | 6 | 2 | 0.0225 | 0.00500 | 0.00250 | 0.00796 |
| 2002 | 6 | 2 | 0.0175 | 0.00957 | 0.00479 | 0.0152 |
| 2003 | 6 | 1 | 0.00800 | 0.00447 | 0.00200 | 0.00555 |
| Year | Range | Max | Min | Median | 25% | 75% |
| 1993 | 0.0200 | 0.0400 | 0.0200 | 0.0300 | 0.0200 | 0.0325 |
| 1994 | 0.130 | 0.140 | 0.01000 | 0.0250 | 0.01000 | 0.0400 |
| 1995 | 0.00500 | 0.00500 | 0.000 | 0.00500 | 0.000 | 0.00500 |
| 1996 | 0.0200 | 0.0300 | 0.01000 | 0.0200 | 0.01000 | 0.0200 |
| 1997 | 0.0300 | 0.0500 | 0.0200 | 0.0400 | 0.0300 | 0.0400 |
| 1998 | 0.0300 | 0.0500 | 0.0200 | 0.0350 | 0.0300 | 0.0400 |
| 1999 | 0.0200 | 0.0500 | 0.0300 | 0.0300 | 0.0300 | 0.0425 |
| 2000 | 0.0200 | 0.0300 | 0.01000 | 0.0200 | 0.0175 | 0.0225 |
| 2001 | 0.01000 | 0.0300 | 0.0200 | 0.0200 | 0.0200 | 0.0250 |
| 2002 | 0.0200 | 0.0300 | 0.01000 | 0.0150 | 0.01000 | 0.0250 |
| 2003 | 0.01000 | 0.01000 | 0.000 | 0.01000 | 0.00750 | 0.01000 |
| Year | Skewness | Kurtosis | K-S Dist. | K-S Prob. | Sum | Sum of Squares |
| 1993 | 0.512 | -0.612 | 0.231 | 0.448 | 0.140 | 0.00420 |
| 1994 | 2.157 | 4.855 | 0.347 | 0.023 | 0.250 | 0.0227 |
| 1995 | -0.968 | -1.875 | 0.407 | 0.002 | 0.0200 | 0.0001000 |
| 1996 | 0.313 | -0.104 | 0.254 | 0.251 | 0.110 | 0.00230 |
| 1997 | -0.666 | 0.586 | 0.293 | 0.111 | 0.220 | 0.00860 |
| 1998 | -1.116E-015 | -0.248 | 0.183 | 0.630 | 0.210 | 0.00790 |
| 1999 | 1.258 | 0.313 | 0.349 | 0.046 | 0.180 | 0.00680 |
| 2000 | -5.551E-016 | 2.000 | 0.300 | 0.149 | 0.1000 | 0.00220 |
| 2001 | 2.000 | 4.000 | 0.441 | 0.006 | 0.0900 | 0.00210 |
| 2002 | 0.855 | -1.289 | 0.283 | 0.289 | 0.0700 | 0.00150 |
| 2003 | -2.236 | 5.000 | 0.473 | <0.001 | 0.0400 | 0.000400 |

Chlorophyll a

Figure 88 presents the seasonal mean chlorophyll *a* trend in Lake Adirondack, while Table 69 presents descriptive statistics for chlorophyll *a* in Lake Adirondack. The chlorophyll *a* in Lake Adirondack exhibited a slight decreasing trend from 1998 to 2003. The chlorophyll *a* in Lake Adirondack was slightly higher than the county average, though this difference was not statistically significant.

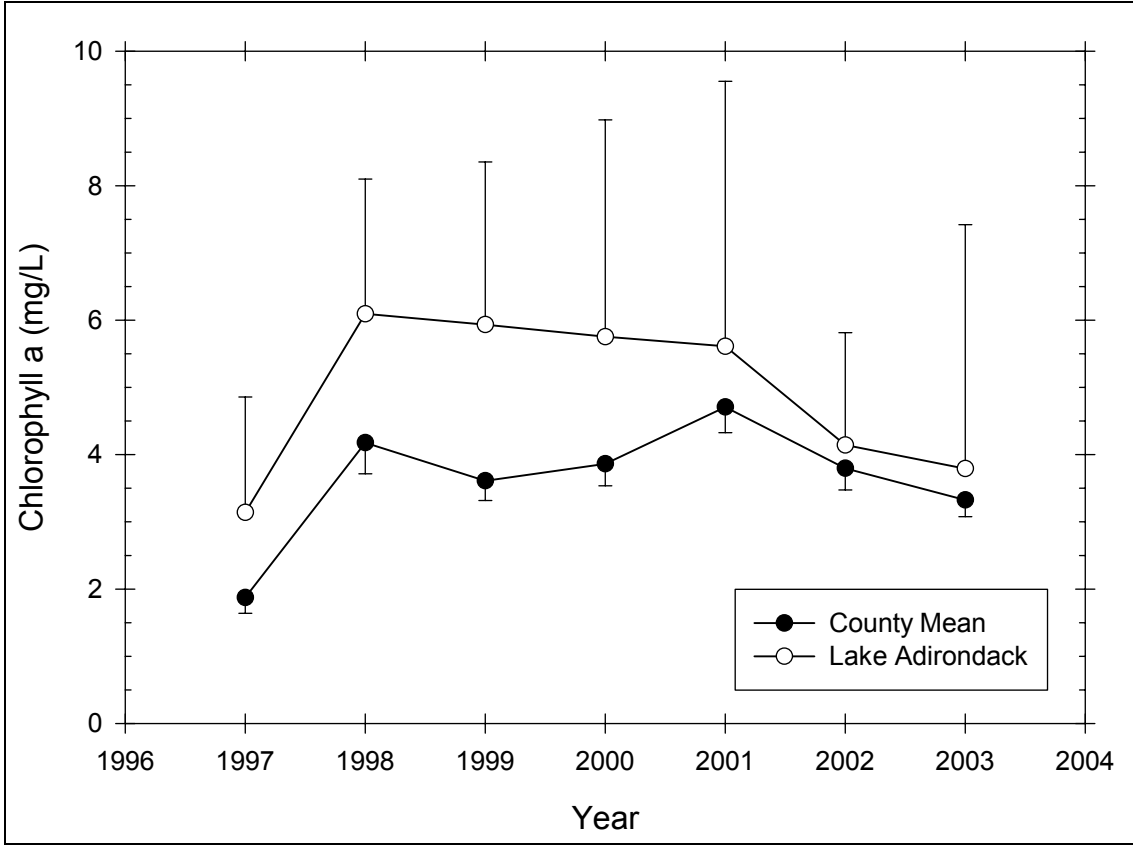


Figure 88 Seasonal mean chlorophyll a trend in Lake Adirondack

Table 69 – Descriptive Statistics for Chlorophyll a in Lake Adirondack

| Year | Size | Missing | Mean | Std Dev | Std. Error | C.I. of Mean |
|------|----------|----------|-----------|-----------|------------|----------------|
| 1997 | 6 | 0 | 3.138 | 1.637 | 0.668 | 1.718 |
| 1998 | 6 | 0 | 6.092 | 1.913 | 0.781 | 2.007 |
| 1999 | 6 | 1 | 5.934 | 1.949 | 0.871 | 2.419 |
| 2000 | 6 | 1 | 5.752 | 2.598 | 1.162 | 3.226 |
| 2001 | 6 | 2 | 5.610 | 2.478 | 1.239 | 3.943 |
| 2002 | 6 | 2 | 4.143 | 1.049 | 0.525 | 1.669 |
| 2003 | 6 | 2 | 3.790 | 2.281 | 1.141 | 3.630 |
| Year | Range | Max | Min | Median | 25% | 75% |
| 1997 | 4.610 | 5.960 | 1.350 | 2.815 | 1.960 | 3.930 |
| 1998 | 4.020 | 7.760 | 3.740 | 6.750 | 3.830 | 7.720 |
| 1999 | 5.230 | 8.180 | 2.950 | 6.360 | 4.773 | 7.145 |
| 2000 | 6.920 | 9.960 | 3.040 | 4.890 | 4.308 | 7.095 |
| 2001 | 5.750 | 8.770 | 3.020 | 5.325 | 3.730 | 7.490 |
| 2002 | 2.490 | 5.170 | 2.680 | 4.360 | 3.480 | 4.805 |
| 2003 | 4.960 | 6.920 | 1.960 | 3.140 | 2.100 | 5.480 |
| Year | Skewness | Kurtosis | K-S Dist. | K-S Prob. | Sum | Sum of Squares |
| 1997 | 1.061 | 1.152 | 0.222 | 0.417 | 18.830 | 72.497 |
| 1998 | -0.531 | -2.259 | 0.280 | 0.149 | 36.550 | 240.942 |
| 1999 | -0.827 | 1.141 | 0.188 | 0.647 | 29.670 | 191.249 |
| 2000 | 1.257 | 2.132 | 0.241 | 0.396 | 28.760 | 192.428 |
| 2001 | 0.561 | -0.531 | 0.182 | 0.681 | 22.440 | 144.311 |

| | | | | | | |
|------|--------|-------|-------|-------|--------|--------|
| 2002 | -1.163 | 2.177 | 0.302 | 0.218 | 16.570 | 71.943 |
| 2003 | 1.170 | 0.407 | 0.252 | 0.425 | 15.160 | 73.067 |

Transparency

Figure 89 presents the seasonal mean transparency trend in Lake Adirondack, while Table 70 presents descriptive statistics for transparency in Lake Adirondack. The transparency in Lake Adirondack exhibited an increasing trend from 1994 to 2002. The transparency in Lake Adirondack was significantly lower than the county average, although the transparency approached the county mean in more recent years, 1999 – 2002, to the point where the difference between the Lake Adirondack and county mean was no longer statistically significant.

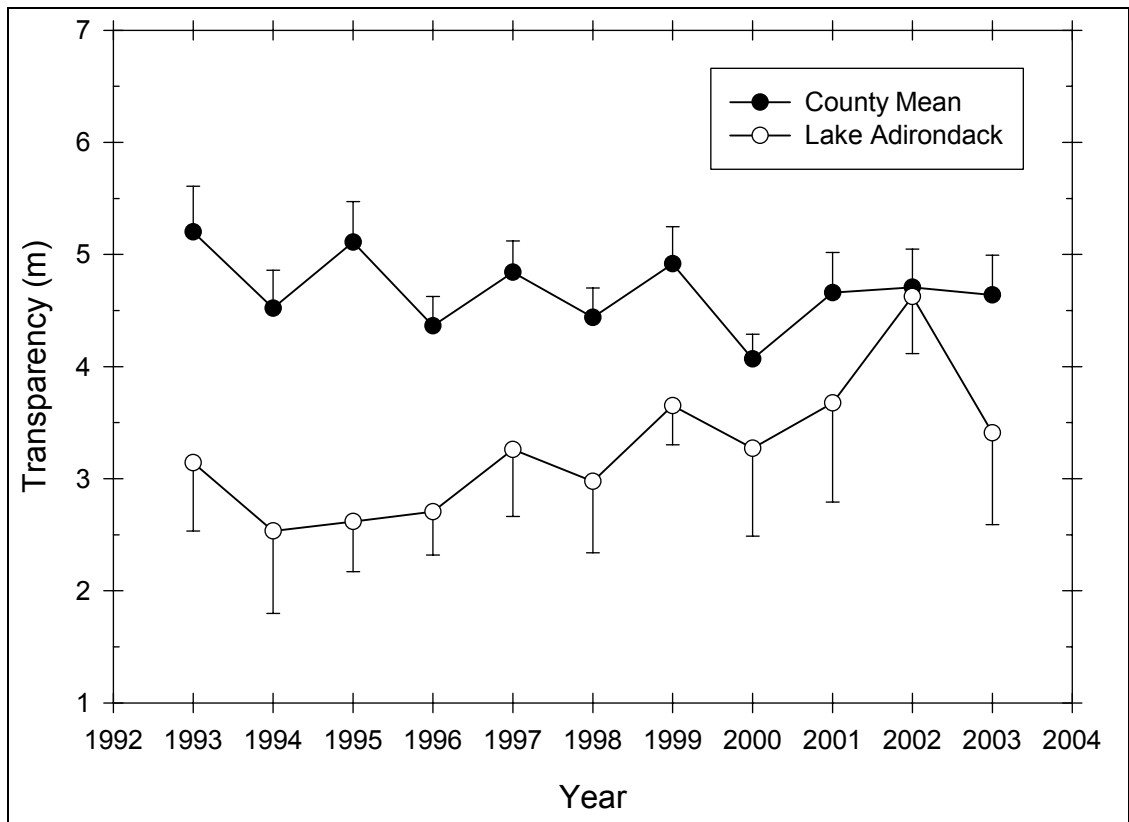


Figure 89 Seasonal mean transparency trend in Lake Adirondack

Table 70 – Descriptive Statistics for Transparency in Lake Adirondack

| Year | Size | Missing | Mean | Std Dev | Std. Error | C.I. of Mean |
|------|------|---------|-------|---------|------------|--------------|
| 1993 | 6 | 2 | 3.143 | 0.383 | 0.192 | 0.609 |
| 1994 | 6 | 0 | 2.533 | 0.700 | 0.286 | 0.735 |
| 1995 | 6 | 0 | 2.617 | 0.425 | 0.174 | 0.446 |
| 1996 | 6 | 0 | 2.705 | 0.368 | 0.150 | 0.386 |
| 1997 | 6 | 0 | 3.260 | 0.571 | 0.233 | 0.599 |
| 1998 | 6 | 0 | 2.975 | 0.607 | 0.248 | 0.637 |
| 1999 | 5 | 0 | 3.652 | 0.282 | 0.126 | 0.350 |
| 2000 | 5 | 0 | 3.270 | 0.631 | 0.282 | 0.784 |
| 2001 | 4 | 0 | 3.675 | 0.556 | 0.278 | 0.885 |
| 2002 | 4 | 0 | 4.625 | 0.320 | 0.160 | 0.509 |
| 2003 | 5 | 0 | 3.408 | 0.659 | 0.295 | 0.819 |

| Year | Range | Max | Min | Median | 25% | 75% |
|-------------|-----------------|-----------------|------------------|------------------|------------|-----------------------|
| 1993 | 0.920 | 3.640 | 2.720 | 3.105 | 2.875 | 3.410 |
| 1994 | 1.800 | 3.700 | 1.900 | 2.300 | 2.000 | 3.000 |
| 1995 | 1.150 | 3.250 | 2.100 | 2.650 | 2.200 | 2.850 |
| 1996 | 1.090 | 3.220 | 2.130 | 2.775 | 2.480 | 2.850 |
| 1997 | 1.650 | 4.070 | 2.420 | 3.335 | 2.850 | 3.550 |
| 1998 | 1.770 | 3.570 | 1.800 | 3.120 | 3.020 | 3.220 |
| 1999 | 0.730 | 4.080 | 3.350 | 3.680 | 3.425 | 3.795 |
| 2000 | 1.450 | 3.900 | 2.450 | 3.600 | 2.675 | 3.712 |
| 2001 | 1.200 | 4.500 | 3.300 | 3.450 | 3.350 | 4.000 |
| 2002 | 0.700 | 5.100 | 4.400 | 4.500 | 4.450 | 4.800 |
| 2003 | 1.770 | 4.320 | 2.550 | 3.350 | 2.978 | 3.855 |
| Year | Skewness | Kurtosis | K-S Dist. | K-S Prob. | Sum | Sum of Squares |
| 1993 | 0.550 | 0.951 | 0.211 | 0.595 | 12.570 | 39.941 |
| 1994 | 1.050 | 0.0800 | 0.232 | 0.363 | 15.200 | 40.960 |
| 1995 | 0.223 | -0.560 | 0.170 | 0.689 | 15.700 | 41.985 |
| 1996 | -0.368 | 0.719 | 0.237 | 0.337 | 16.230 | 44.580 |
| 1997 | -0.169 | 0.117 | 0.195 | 0.571 | 19.560 | 65.393 |
| 1998 | -1.860 | 4.234 | 0.363 | 0.013 | 17.850 | 54.948 |
| 1999 | 0.794 | 0.597 | 0.232 | 0.438 | 18.260 | 67.004 |
| 2000 | -0.582 | -2.361 | 0.299 | 0.151 | 16.350 | 55.058 |
| 2001 | 1.872 | 3.577 | 0.374 | 0.053 | 14.700 | 54.950 |
| 2002 | 1.866 | 3.619 | 0.402 | 0.023 | 18.500 | 85.870 |
| 2003 | 0.186 | 0.248 | 0.135 | 0.745 | 17.040 | 59.812 |

TSI

Figure 90 presents the Carlson trophic state index trend in Lake Adirondack. Transparency TSI was mesotrophic throughout the period, while chlorophyll *a* TSI was eutrophic in most years. Total phosphorus TSI was mesotrophic but lower in recent years, including in the oligotrophic range in 2000 and 2001.

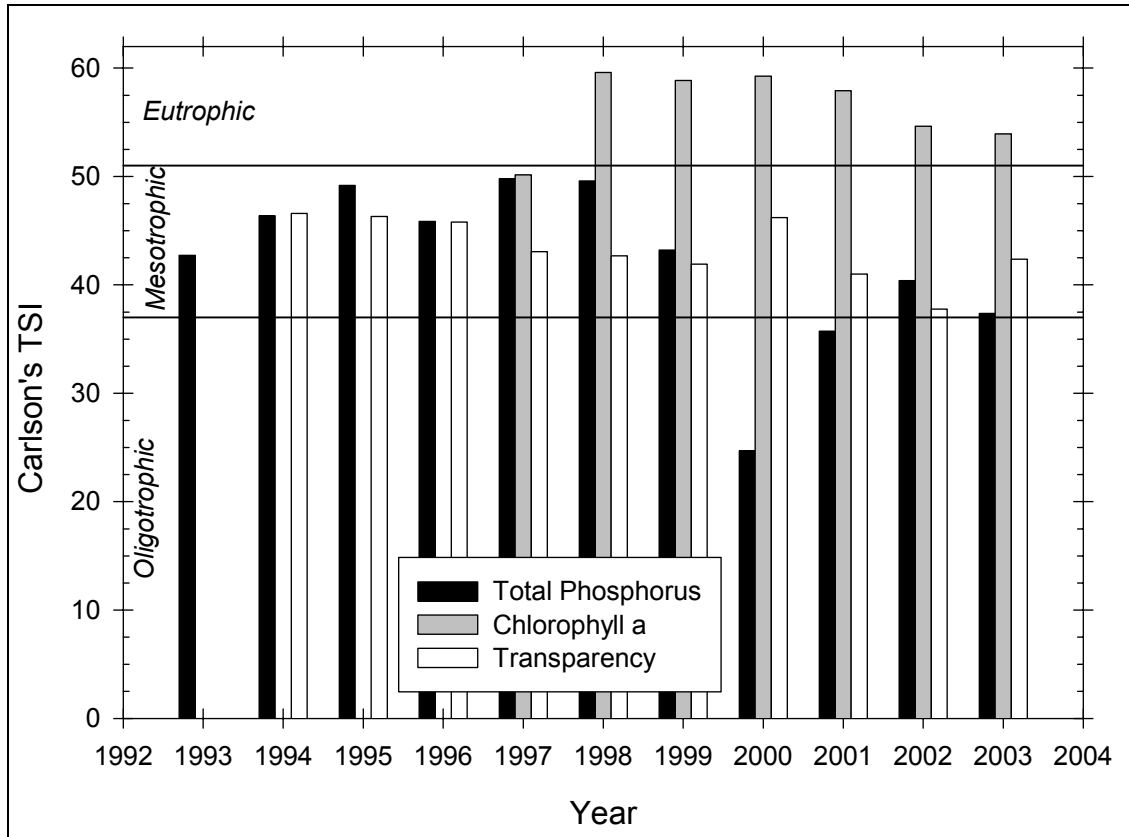


Figure 90 Carlson TSI trend in Lake Adirondack

Aluminum

Figure 91 presents the seasonal mean aluminum trend in Lake Adirondack, while Table 71 presents descriptive statistics for aluminum in Lake Adirondack. The aluminum in Lake Adirondack exhibited a slight decreasing trend from 1997 to 2003. The aluminum in Lake Adirondack was slightly lower than the county average, though this difference may not be statistically significant for all years.

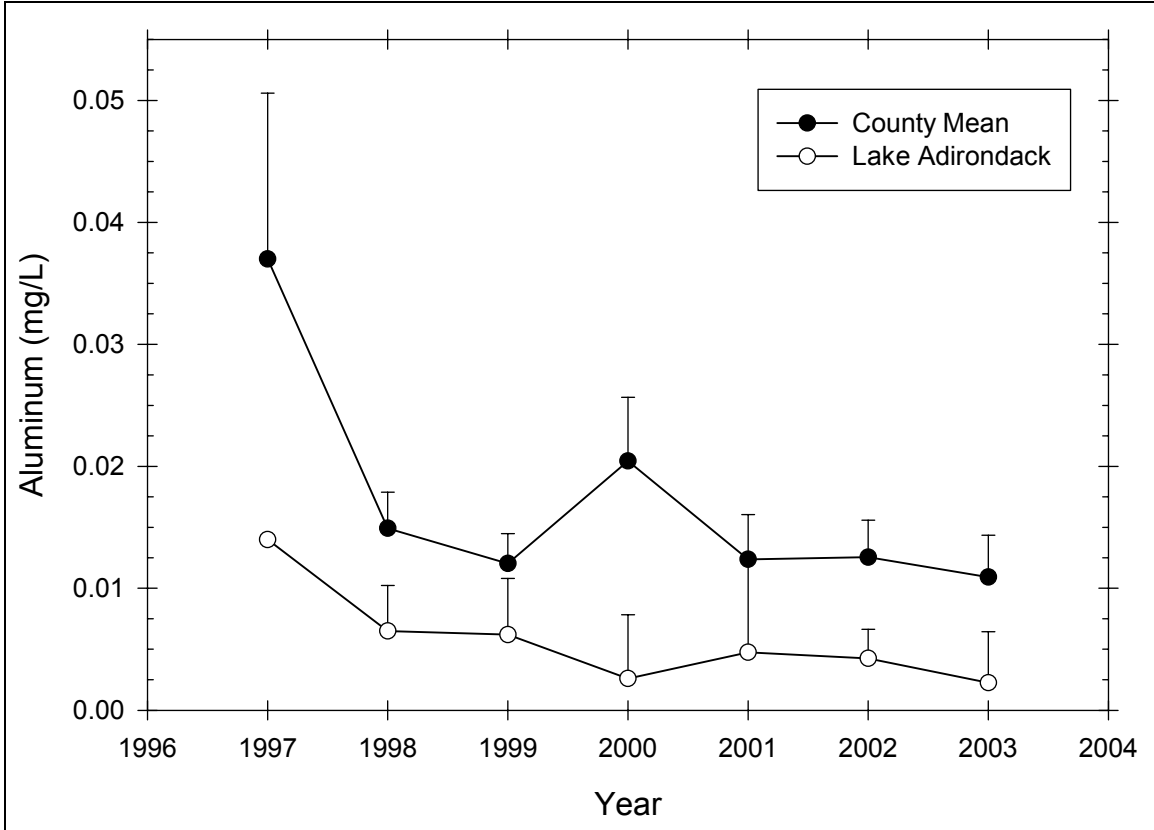


Figure 91 Seasonal mean aluminum trend in Lake Adirondack

Table 71 – Descriptive Statistics for Aluminum in Lake Adirondack

| Year | Size | Missing | Mean | Std Dev | Std. Error | C.I. of Mean |
|------|----------|----------|-----------|-----------|------------|----------------|
| 1997 | 6 | 5 | 0.0140 | -- | -- | -- |
| 1998 | 6 | 0 | 0.00650 | 0.00356 | 0.00145 | 0.00374 |
| 1999 | 6 | 1 | 0.00620 | 0.00370 | 0.00166 | 0.00460 |
| 2000 | 6 | 1 | 0.00260 | 0.00422 | 0.00189 | 0.00524 |
| 2001 | 6 | 2 | 0.00475 | 0.00499 | 0.00250 | 0.00794 |
| 2002 | 6 | 2 | 0.00425 | 0.00150 | 0.000750 | 0.00239 |
| 2003 | 6 | 2 | 0.00225 | 0.00263 | 0.00131 | 0.00418 |
| Year | Range | Max | Min | Median | 25% | 75% |
| 1997 | 0.000 | 0.0140 | 0.0140 | 0.0140 | 0.0140 | 0.0140 |
| 1998 | 0.00800 | 0.01000 | 0.00200 | 0.00800 | 0.00200 | 0.00900 |
| 1999 | 0.00900 | 0.0110 | 0.00200 | 0.00500 | 0.00350 | 0.00950 |
| 2000 | 0.01000 | 0.01000 | 0.000 | 0.001000 | 0.000 | 0.00400 |
| 2001 | 0.0110 | 0.0120 | 0.001000 | 0.00300 | 0.00150 | 0.00800 |
| 2002 | 0.00300 | 0.00600 | 0.00300 | 0.00400 | 0.00300 | 0.00550 |
| 2003 | 0.00500 | 0.00500 | 0.000 | 0.00200 | 0.000 | 0.00450 |
| Year | Skewness | Kurtosis | K-S Dist. | K-S Prob. | Sum | Sum of Squares |
| 1997 | -- | -- | -- | -- | 0.0140 | 0.000196 |
| 1998 | -0.776 | -1.826 | 0.330 | 0.040 | 0.0390 | 0.000317 |
| 1999 | 0.379 | -1.813 | 0.227 | 0.465 | 0.0310 | 0.000247 |
| 2000 | 2.029 | 4.217 | 0.357 | 0.037 | 0.0130 | 0.000105 |
| 2001 | 1.646 | 2.704 | 0.310 | 0.193 | 0.0190 | 0.000165 |

| | | | | | | |
|------|-------|--------|-------|-------|---------|-----------|
| 2002 | 0.370 | -3.901 | 0.298 | 0.234 | 0.0170 | 0.0000790 |
| 2003 | 0.124 | -5.290 | 0.304 | 0.212 | 0.00900 | 0.0000410 |

Calcium

Figure 92 presents the seasonal mean calcium trend in Lake Adirondack, while Table 72 presents descriptive statistics for calcium in Lake Adirondack. The calcium in Lake Adirondack exhibited a slight increasing trend from 1997 to 2003. The calcium in Lake Adirondack was significantly higher than the county average.

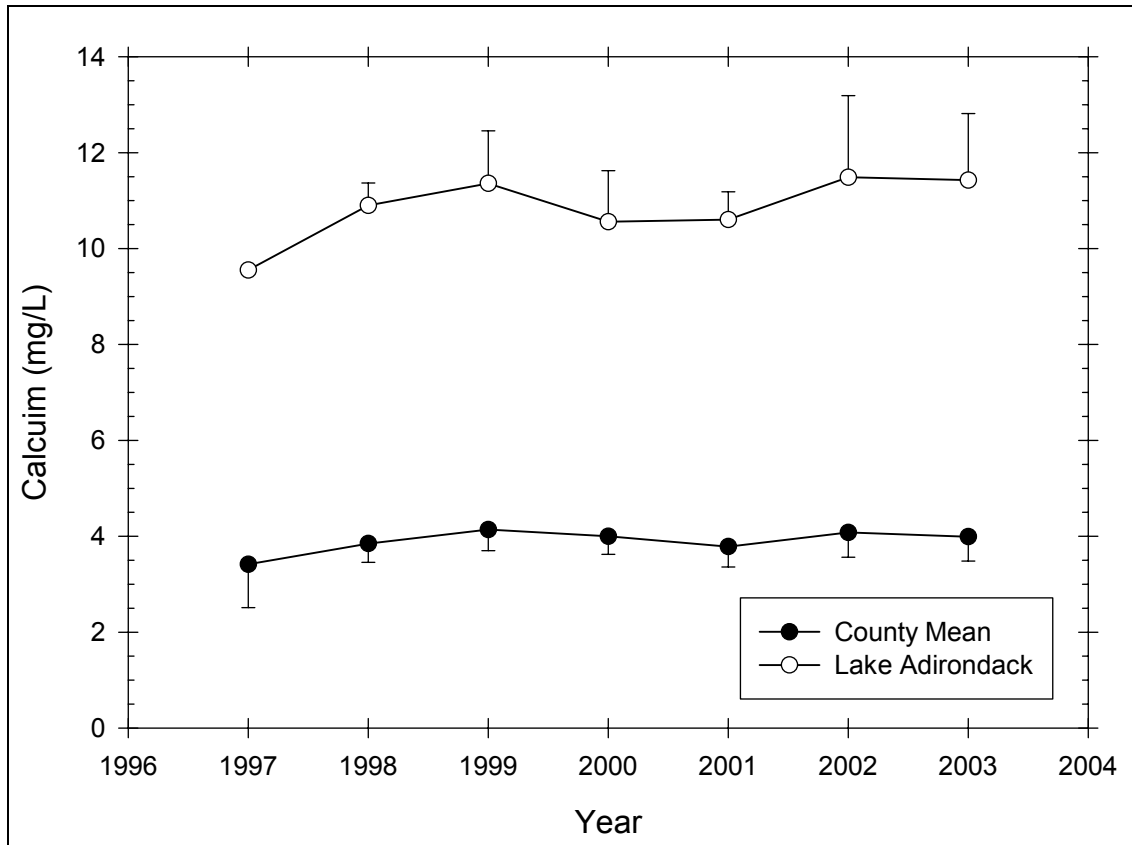


Figure 92 Seasonal mean calcium trend in Lake Adirondack

Table 72 – Descriptive Statistics for Calcium in Lake Adirondack

| Year | Size | Missing | Mean | Std Dev | Std. Error | C.I. of Mean |
|------|-------|---------|--------|---------|------------|--------------|
| 1997 | 6 | 5 | 9.550 | -- | -- | -- |
| 1998 | 6 | 0 | 10.900 | 0.444 | 0.181 | 0.466 |
| 1999 | 6 | 1 | 11.358 | 0.884 | 0.395 | 1.097 |
| 2000 | 6 | 1 | 10.560 | 0.854 | 0.382 | 1.061 |
| 2001 | 6 | 2 | 10.603 | 0.364 | 0.182 | 0.580 |
| 2002 | 6 | 2 | 11.488 | 1.070 | 0.535 | 1.702 |
| 2003 | 6 | 2 | 11.425 | 0.873 | 0.436 | 1.389 |
| Year | Range | Max | Min | Median | 25% | 75% |
| 1997 | 0.000 | 9.550 | 9.550 | 9.550 | 9.550 | 9.550 |
| 1998 | 1.140 | 11.550 | 10.410 | 10.920 | 10.450 | 11.150 |

| | | | | | | |
|-------------|-----------------|-----------------|------------------|------------------|------------|-----------------------|
| 1999 | 2.150 | 12.100 | 9.950 | 11.800 | 10.767 | 11.950 |
| 2000 | 2.280 | 11.550 | 9.270 | 10.660 | 10.050 | 11.145 |
| 2001 | 0.750 | 11.030 | 10.280 | 10.550 | 10.300 | 10.905 |
| 2002 | 2.050 | 12.400 | 10.350 | 11.600 | 10.575 | 12.400 |
| 2003 | 1.820 | 12.500 | 10.680 | 11.260 | 10.715 | 12.135 |
| | | | | | | |
| Year | Skewness | Kurtosis | K-S Dist. | K-S Prob. | Sum | Sum of Squares |
| 1997 | -- | -- | -- | -- | 9.550 | 91.203 |
| 1998 | 0.291 | -1.160 | 0.178 | 0.655 | 65.400 | 713.846 |
| 1999 | -1.310 | 0.955 | 0.292 | 0.176 | 56.790 | 648.144 |
| 2000 | -0.735 | 0.859 | 0.185 | 0.659 | 52.800 | 560.487 |
| 2001 | 0.381 | -3.735 | 0.281 | 0.298 | 42.410 | 450.050 |
| 2002 | -0.151 | -5.134 | 0.303 | 0.215 | 45.950 | 531.283 |
| 2003 | 0.564 | -2.785 | 0.280 | 0.301 | 45.700 | 524.408 |

Calcite Saturation Index

Figure 93 presents the calcite saturation index trend in Lake Adirondack. The CSI in Lake Adirondack was stable throughout the period of record, well within the low vulnerability to acid deposition range. The CSI in Lake Adirondack was significantly lower than the county average, though this difference may not be statistically significant for all years.

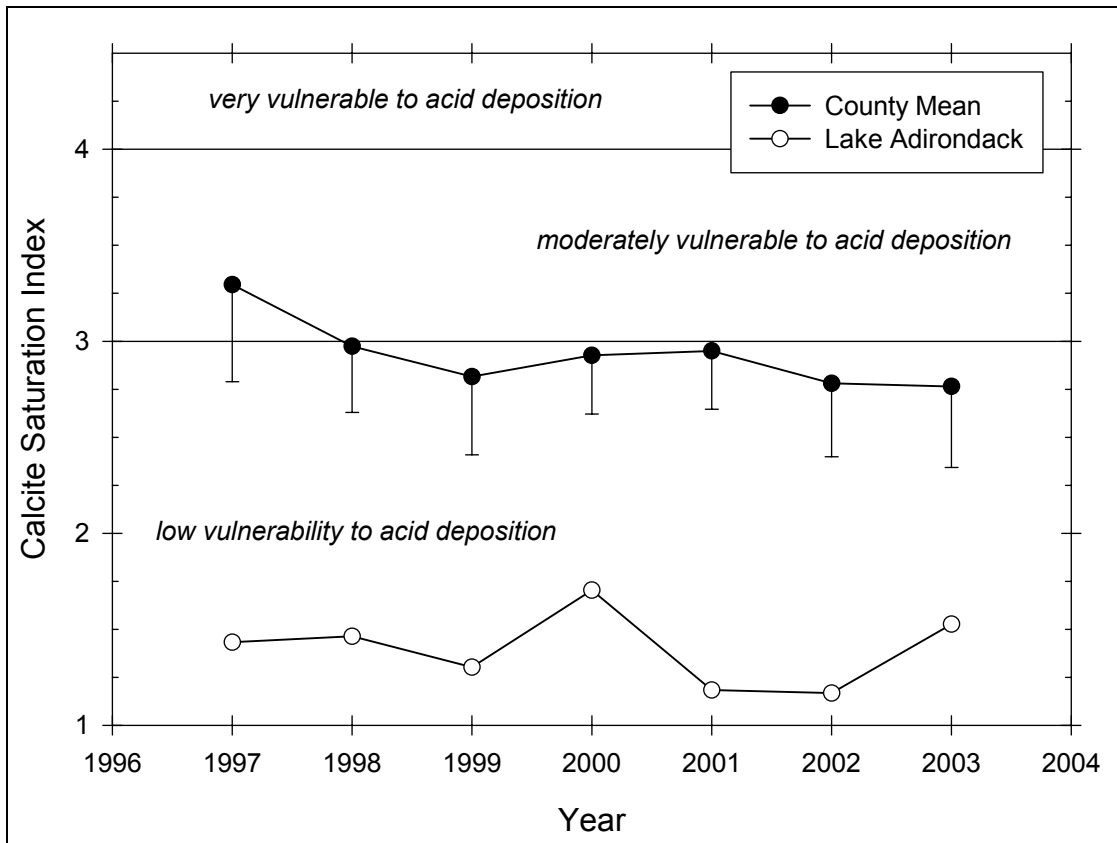


Figure 93 Seasonal mean CSI trend in Lake Adirondack