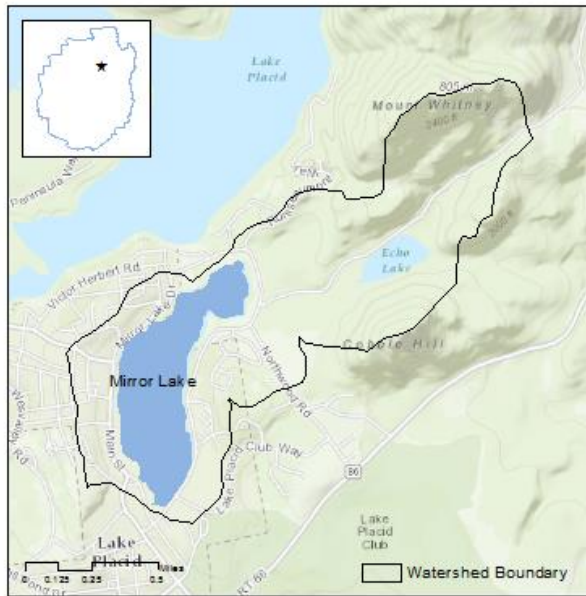


Mirror Lake



Location	County:	Essex
	Town:	North Elba
Lake Characteristics	Surface Area (ha):	50
	Shoreline Length (km):	4
	Max. Depth (m):	18.288
	Volume (m ³):	2211328
	Flush rate (times/year):	0.588
Watershed Characteristics	Watershed Area (ha):	301
	Surface water (%):	19
	Deciduous Forest (%):	28
	Evergreen Forest (%):	9
	Mixed Forest (%):	13
	Wetlands (%):	4
	Agricultural (%):	0
	Residential (%):	26
	Local Roads (km):	7.6
	State Roads (km):	1.1

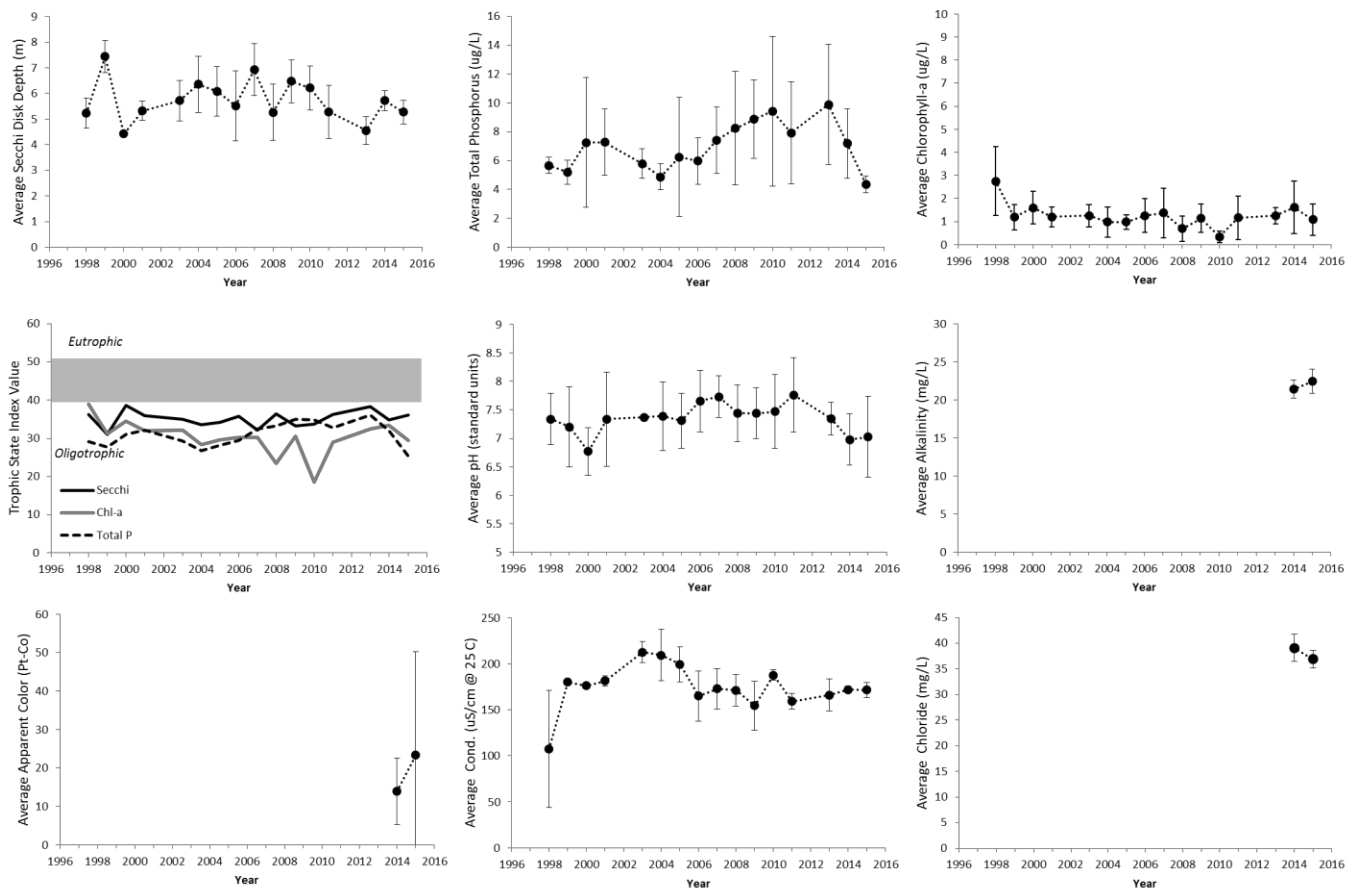
Trophic State Oligotrophic	Acidity Circumneutral	Acid Neutralizing Capacity Adequate – low sensitivity	Road Salt Influence High
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Water quality values and historical trends for Mirror Lake during the 2015 sampling season. Trend analysis was not performed on calcium or nitrogen data. BDL=below detection limit.

Water Quality Indicator	Sampling Date					Average	Trend
	5/18	6/26	7/23	8/19	9/25		
Transparency (m)	5.7	5.9	4.9	4.9	5.2	5.3	No change
Total Phosphorus (µg/L)	5.0	4.0	3.7	4.7	84.8*	4.4	No change
Chlorophyll- <i>a</i> (µg/L)	1.6	0.4	1.9	1.1	0.5	1.1	No change
Laboratory pH	8.1	6.5	6.6	6.5	7.3	7.0	No change
Sp. Cond. (µS/cm)	185.1	166.4	163.6	173.6	168.6	171.5	No change
Color (Pt-Co)	66.3	28.9	13.3	13.3	BDL	±23.3	No change
Alkalinity (mg/L)	22.1	20.6	22.0	25.0	22.6	22.5	No change
Nitrate-Nitrogen (µg/L)	1.6	16.0	0.9	74.5	BDL	±18.6	Not analyzed
Chloride (mg/L)	37.9	34.3	36.0	38.3	37.9	36.9	No change
Calcium (mg/L)	8.8	8.0	8.0	8.5	8.6	8.4	Not analyzed
Sodium (mg/L)	25.2	22.0	20.8	20.3	19.4	21.5	No change

See table of content for description of water quality indicators, *indicates unusually high value, not included in the average.

Mirror Lake – Time Series



Annual average values of select water quality indicators for Mirror Lake, 1998-2015. Data from 1998-2013 from CSLAP. Vertical bars represent ± 1 standard deviation of the mean; Solid trend lines across the data indicate a statistically significant trend ($p < 0.05$).

Summary of Findings

Mirror Lake is a 50 ha lake located in Essex County in the Town of North Elba. The lake is located within a 301 ha watershed. Approximately 26% of the watershed area is occupied by commercial and residential space, the greatest proportion of any Adirondack lake. The lake has been participating in CSLAP since 1998. In this analysis we have combined the ALAP and CSLAP data sets.

- Mirror Lake is an oligotrophic Lake. Transparency, total phosphorus, and chlorophyll-a have not exhibited any significant trends since 1998. The average total phosphorus concentration has been lower during the past two years compared to historical data, but not from a statistical perspective.
- Water samples from 2015 were found to be circumneutral in terms of their acidity. The lake is not sensitive to acid deposition.
- Sodium and chloride concentration averaged 21.5 and 36.9 mg/L in 2015, indicating the chemistry of the lake is highly influenced by the urban environment within the watershed. Chloride concentration in Mirror Lake is greater than 96% of participating ALAP lakes, sodium is greater than 93% of participating lakes.