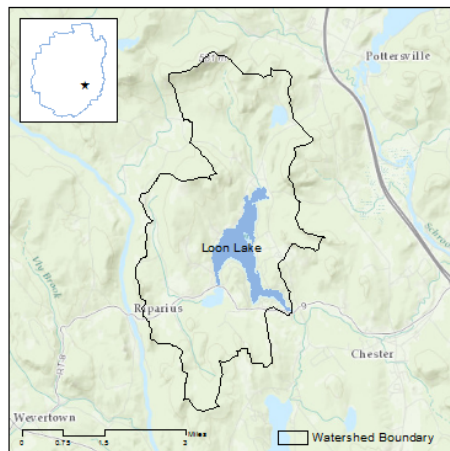


ADIRONDACK LAKE ASSESSMENT PROGRAM

LOON LAKE - WARREN COUNTY



Location

- County: Warren
- Town: Chester

Lake Characteristics

- Surface Area (ha): 212
- Shoreline Length (km): 20
- Max Depth (m): Not Available
- Volume (m³): Not Available
- Flushing Rate (times/year): Not Available

Watershed Characteristics

- Watershed Area (ha): 3,363
- Surface Water (%): 9
- Deciduous Forest (%): 16
- Evergreen Forest (%): 35
- Mixed Forest (%): 24
- Wetlands (%): 10
- Agriculture (%): 0
- Residential (%): 6
- Local Roads (km): 22
- State Roads (km): 10.6

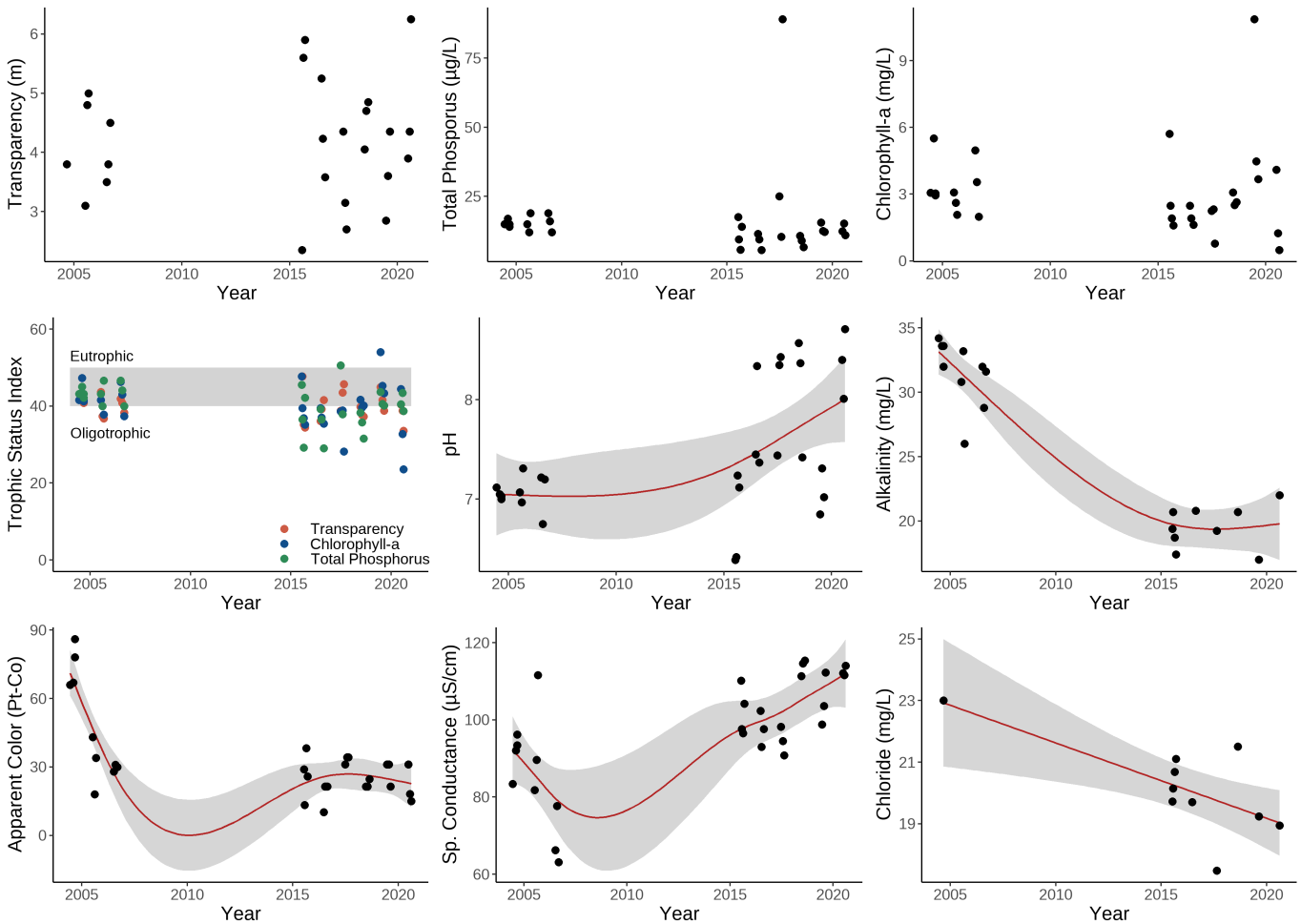
Trophic State	Acidity	Acid Neutralizing Capacity	Road Salt Influence
Oligotrophic	Alkaline	Adequate	Moderate

2020 DATA

Water quality values for Loon Lake during the 2020 sampling season. BDL = below detection limit.

	06/28/2020	07/24/2020	08/15/2020	Average
Transparency (m)	3.9	4.3	6.2	4.8
Total Phosphorus (µg/L)	12.4	15.2	11.0	12.9
Cholorphyll-a (µg/L)	4.1	1.2	0.5	1.9
Laboratory pH	8.4	8.0	8.7	8.4
Sp. Conductance (µS/cm)	112.1	111.6	114.0	112.6
Color (Pt-Co)	31.1	18.2	15.0	21.4
Alkalinity (mg/L)	NA	NA	22.0	22.0
Chloride (mg/L)	NA	NA	19.0	19.0
Calcium (mg/L)	NA	NA	6.4	6.4
Sodium (mg/L)	NA	NA	11.2	11.2

HISTORICAL DATA



Raw data of select water quality indicators for Loon Lake, 2004-2020. Trend analysis conducted using a generalized additive model. Fitted lines across the data indicate a statistically significant trend ($p < 0.05$), grey shading represents the 95% confidence interval for the fit model.

SUMMARY OF FINDINGS

Loon Lake is a 212 ha lake located in Warren County in the Town of Chester. The lake is located within a 3,363 ha watershed dominated by forests. Loon Lake began participation in ALAP in 2004-2006, and again in 2015-present.

- Loon Lake has been historically classified as a mesotrophic lake but showed a shift toward oligotrophic conditions in 2020.
- Water samples submitted in 2020 were alkaline in terms of their acidity, with an average of 8.4 pH units. The alkalinity was 22.0 mg/L, indicating low sensitivity to acid deposition. There has been a significant increase in pH and decrease in alkalinity from 2004 to 2020.
- Sodium and chloride concentrations were 11.2 and 19.0 mg/L respectively, indicating that the chemistry of the lake is moderately influenced by the 32.6 km of roads in the watershed. A significant decrease in chloride concentration was detected from 2004 to 2020.