

Kasoag Lake – 2021 Lake Summary

Q. What is the condition of the lake?

- A. Kasoag Lake continues to be mesotrophic, or moderately productive, based on moderate water clarity, moderate algae levels (chlorophyll a), and moderate nutrient (phosphorous) levels. Soluble nutrients were analyzed in 2021. Some of the phosphorus in the lake is soluble, indicating some potential for more algae growth. Most of the nitrogen in the lake is soluble. The waterbody is a near neutral pH, with intermediate hardness water, low water color, and low nitrogen levels.

Q. How did this year compare to previous years?

- A. Compared to previous years, water clarity (secchi) was lower in 2021. Chlorophyll a, total phosphorus, color, pH, conductivity, calcium, surface water temperature, water quality evaluation, aquatic plant coverage and recreational evaluation in 2021 were similar to previous years. There is insufficient data to identify trends in the remaining water quality parameters.

Q. How does this lake compare to other New York lakes?

- A. Compared to other New York lakes, this lake usually has lower conductivity and chloride.

Q. Are there any (statistically significant) trends?

- A. Over the past 31 years, surface total phosphorus and surface water temperature have increased significantly. Over the past 31 years, clarity, pH, TN:TP, total dissolved nitrogen and total nitrogen have decreased significantly. Over the past ten years, chlorophyll a and surface NH₃ have increased significantly. Over the past ten years, clarity and total dissolved nitrogen have decreased significantly.

Q. Has the lake experienced harmful algal blooms (HABs)?

- A. Water quality conditions generally indicate a low susceptibility to blooms, with no reported blooms along the shoreline or in the open water.

The open water algal community in the lake is usually comprised of low cyanobacteria levels. This community is dominated by Ceratium. Typically, overall open water algae levels are intermediate. Overall open water toxin levels are consistently below recreational levels of concern.

This year, overall algae levels were intermediate, with diatoms the most common taxa in open water samples, and with low cyanobacteria levels. Open water toxin levels were at times low but detectable this year.

Shoreline blooms were not reported and/or sampled this year.

Q. Have any aquatic invasive species (AIS) been reported?

- A. Invasive species have been reported in this waterbody. Aquatic invasive plant and/or animal species reported include: Eurasian watermilfoil, fanwort. This waterbody has high vulnerability for introduction of new invasive species due to invasive species already being present. This waterbody has moderate vulnerability for establishment of invasive bivalves based on calcium levels. For more information about invasive species in the area, or to report an invasive species observation, visit NY iMapInvasives at <https://www.nyimapinvasives.org/>.