**Summary**

**2018 compared to prior years**:

Brantingham Lake continues to be mesoligotrophic , or moderately unproductive, based on moderate water clarity, moderate algae levels (chlorophyll a), and low nutrient (phosphorus) levels.

Surface temperatures readings were higher than normal in 2018. Water clarity readings were lower than normal in 2018. Each of the other water quality indicators was close to normal in 2018.

**Compared to nearby lakes**:

Compared to other nearby lakes, Brantingham Lake usually has higher water clarity, pH, and Brantingham Lake usually has lower chlorophyll a levels, phosphorus readings, calcium levels, and chloride levels. Brantingham Lake usually has similar water quality assessments, similar recreational assessments. Brantingham Lake usually has less extensive aquatic plant coverage.

**Trends:**

Since 2001, pH, surface water temperatures, bottom water temperatures, have increased slightly. deep phosphorus, have increased slightly. recreational assessments, have improved slightly.

**Algal blooms and HABS:**

Water quality conditions 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 primarily of diatoms, with low cyanobacteria levels. Overall open water algae levels are intermediate. In 2018, overall algae levels were low, with green algae the most common taxa in open water samples, and with low cyanobacteria levels. Toxin levels in open water samples are at times low but detectable. Open water toxin levels were undetectable in 2018. Shoreline blooms have been documented in the lake, comprised primarily of cyanobacteria dominated by Microcystis. The algal community exhibits at times low but detectable toxin levels. In 2018, shoreline blooms were documented in the lake, comprised primarily of green algae with high

**Aquatic invasive species:**

There are no invasive plants reported or present at Brantingham Lake, and no invasives have been reported in nearby waterbodies. No invasive animals have been reported in Brantingham Lake. Brantingham Lake has a low vulnerability for new invasives.

**Indicated Actions:** Individual stewardship activities such as pumping your septic system, growing a buffer of native plants next to the water bodies, and reducing erosion from shoreline properties and runoff into the lake will help to improve lake health by reducing nutrient and sediment loading to the lake. Visiting boats should be inspected to reduce the risk of new invasive species, although no nearby lakes have documented any AIS. Continued monitoring for invasive species is warranted. Continued algae bloom education and monitoring for HABs is recommended. More information about in-lake algae control measures and watershed nutrient control measures to improve lake condition can be found in Diet for a Small Lake (<https://www.dec.ny.gov/chemical/82123.html>).