

# Lake Como (0705-0029)

# Impaired

## Waterbody Location Information

Revised: 4/01/2016

**Water Index No:** Ont 66-12-P296- 74-P333  
**Hydro Unit Code:** Cayuga Inlet (0414020110)  
**Water Type/Size:** Lake/Reservoir 68.3 Acres  
**Description:** entire lake

**Water Class:** B  
**Drainage Basin:** Oswego-Seneca-Oneida  
**Reg/County:** 7/Cayuga (6)

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

Uses Evaluated	Severity	Confidence
Water Supply	Unassessed	-
Public Bathing	Impaired	Known
Recreation	Impaired	Known
Aquatic Life	Fully Supported	Unconfirmed
Fish Consumption	Fully Supported	Unconfirmed
<b>Conditions Evaluated</b>		
Habitat/Hydrology	Unknown	
Aesthetics	Fair	

### Type of Pollutant(s)

Known: HARMFUL ALGAL BLOOMS, ALGAL/PLANT GROWTH, Nutrients (phosphorus), Aquatic Invasive Species  
Suspected: - - -  
Unconfirmed: Low D.O./Oxygen Demand

### Source(s) of Pollutant(s)

Known: AGRICULTURE, Habitat Alteration  
Suspected: Onsite/Septic Systems  
Unconfirmed: UNKNOWN SOURCE

## Management Information

**Management Status:** Verification of Sources Needed  
**Lead Agency/Office:** ext/WQCC  
**IR/305(b) Code:** Impaired Water, Pollution, not Pollutant (IR Category 4c)

## Further Details

### Overview

Lake Como is assessed as an impaired waterbody due to public bathing and other recreational uses that are known to be impaired by algal and weed growth. Harmful algal blooms (HABs) have been documented in the lake, resulting in beach closures. Elevated levels of toxins have been found in some cases. Elevated nutrient levels from various nonpoint sources are thought to contribute to the weed and algal growth, although lake trophic indicators do not quite meet the criteria corresponding to impairment.

### Use Assessment

Lake Como is a Class B waterbody, suitable for public bathing, general recreation use and support of aquatic life, but

not as a water supply.

Recreation use and public bathing are considered to be impaired due to harmful algal blooms (HABs) that result in periodic closures of public beaches to swimming. Native and non-native vegetation also restrict recreational uses. The Lake is shallow and warm with dense growths of native and non-native aquatic vegetation, conditions that have not significantly changed since first reported in the 1930s. (DEC/DOW, BWAM/LMAS, July 2013)

Aquatic life is assumed to be fully supported based on the support of a satisfactory warm water fishery of largemouth bass, tiger musky, chain pickerel, walleye, black crappie, rock bass, yellow perch, bluegill, pumpkinseed sunfish, and brown bullhead. The Lake is stocked annually with tiger muskellunge. (DEC/DFWMR, April 2015)

There are no health advisories in place limiting the consumption of fish from this waterbody (beyond the general advice for all waters). Fish consumption is considered to be fully supported based on the absence of any waterbody-specific advisory, but is noted as unconfirmed since routine monitoring of contaminants in fish is limited. (NYS DOH Health Advisories and DEC/DOW, BWAM, January 2014)

#### Water Quality Information

Water quality sampling of Lake Como has been conducted through the Citizens Statewide Lake Assessment Program (CSLAP) from 1997-2013, and previously from 1988-95. Results of this sampling indicate the lake is best characterized as mesoeutrophic, or moderately to highly productive. Chlorophyll/algal levels are below criteria corresponding to impaired recreational uses, while phosphorus concentrations are typically found to be right around the impairment threshold. Lake clarity measurements indicate water transparency typically meet the recommended minimum criteria for swimming beaches. Readings of pH typically fall occasionally exceed the range established in state water quality standards for protection of aquatic life though impacts to the fishery are not apparent. The occasionally elevated pH is most likely a response to algae levels. Taken together, these results suggest uses in the lake are stressed rather than impaired. (DEC/DOW, BWAM/LMAS, April 2016)

Public perception of the lake and its uses is also evaluated as part of the CSLAP program. This assessment indicates recreational suitability of the lake to have been less favorable in recent years. The recreational suitability of the lake is described most frequently as "slightly" impacted for most uses. The lake itself is most often described as having "definite algal greenness." Assessments have noted that aquatic plants typically grow to the lake surface and, though not usually dense, they do impact recreational use. Aquatic plants are dominated by a mix of native and non-native (invasive) species and as noted above have resulted in impacts to recreational uses. (DEC/DOW, BWAM/CSLAP, March 2006)

#### Source Assessment

Based on the surrounding land use and other knowledge of the waterbody, the most likely sources of nutrients pollutants to the waterbody agricultural activity in the watershed and possibly onsite wastewater (septic) systems serving lakeshore residences, though this source needs further verification.

Most occurrences of harmful algal blooms are attributed to high levels of nutrients resulting in eutrophic conditions. Nutrients and other trophic indicators in this lake, though somewhat elevated, are not exceptionally high for a lake like Lake Como, suggesting that HABs issues in this case might not follow the traditional eutrophication pathways.

#### Management Actions

Lake Como is represented by the Lake Como Association. The Association and Cayuga County Water Quality Management Agency is involved in a variety of lake management activities, and worked with the lake association toward the development of the Lake Como State of the Lake Report and Watershed Management Plan. Continued monitoring of the Lake trophic condition and HABs occurrence is also recommended.

#### Section 303(d) Listing

Lake Como is not included on the current (2016) NYS Section 303(d) List of Impaired/TMDL Waters. Although it is

assessed as an impaired water due to HABs occurrences, it is more appropriately categorized as an IR Category 4c water that is not listed because the impairment is not caused by a pollutant that can be addressed by a TMDL. (DEC/DOW, BWAM, April 2016)

**Segment Description**

This segment includes the total area of the entire lake.