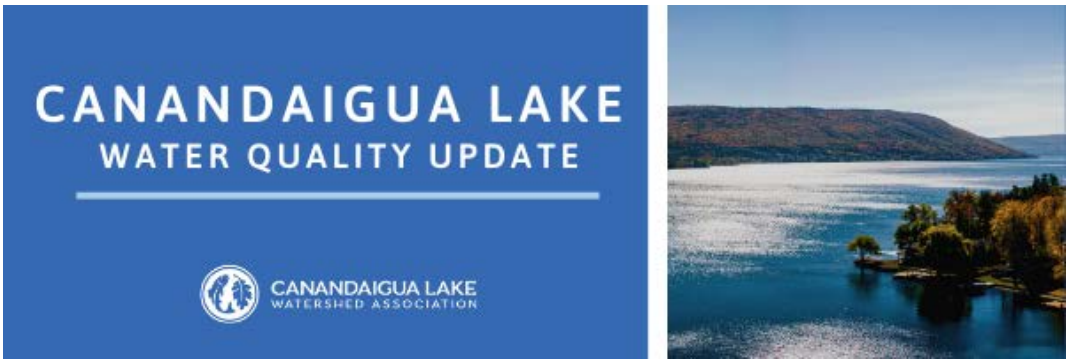


Water Quality Update for October 2, 2020

This weekend marks the official end of the Volunteer Shoreline Harmful Algae Bloom Monitoring Program. We'd like to thank the 42 of volunteers for participating in the 10-week program this season! With the routine monitoring program winding down, we will take a few weeks to review the data and compile a season report to share with our members and the watershed community. Thank you for following our Friday updates and providing feedback – we hope they are useful to help you better understand the lake conditions and the activities that are occurring to monitoring the lake.

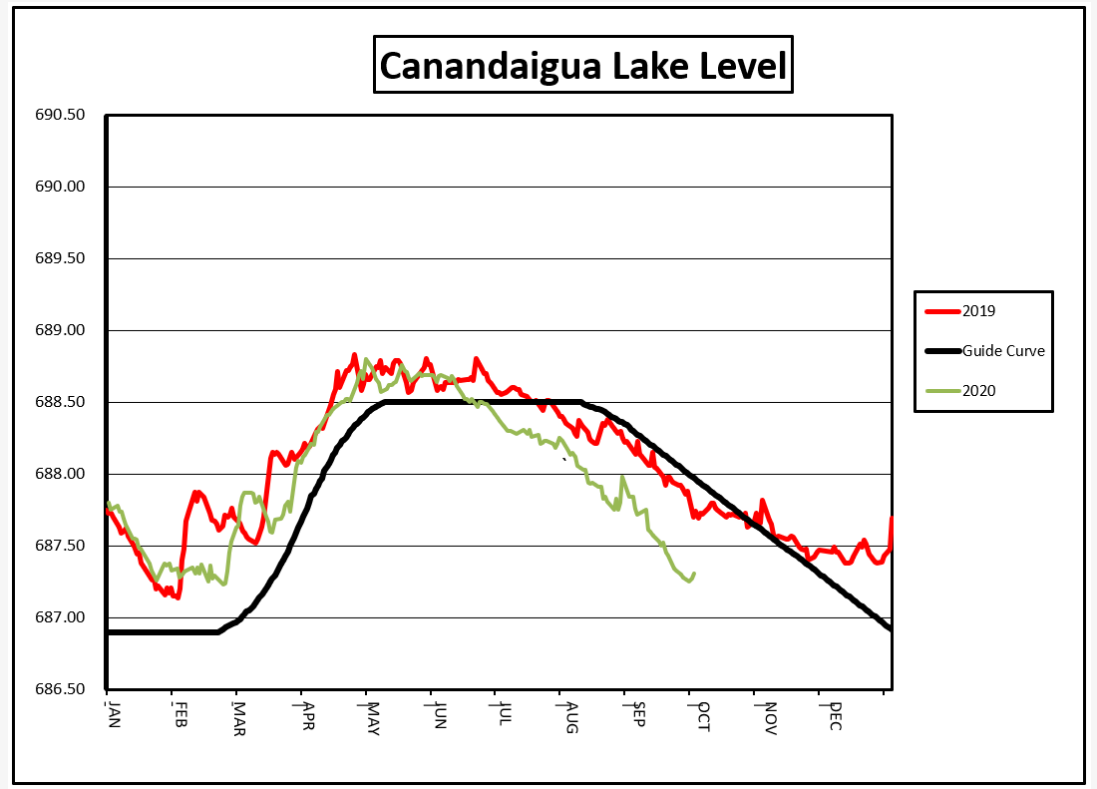
While our weekly Friday updates are concluding with the program's end, we are still very tied in with monitoring the lake's condition through the secchi disk program and other professional monitoring efforts. We will be providing a few more updates this fall (with less frequency) to share relevant water quality information.

With very few suspicious blooms reported this week, we thought this would be a good time to shift to a discussion of our lake level.

LAKE LEVELS

We have been getting several calls about low lake levels for this time of year and for good reason! The lake level is about 8 inches below the guide curve for this time of year and about 5 inches below where it was at this time last year (see chart below). That may not seem like a lot, but if you can't get your boat out of the boat slip or you have hit the lake bottom with your propeller- you definitely know that the lake is lower than normal.

The key question is: why is it lower? There are "mother nature" influences that really dominate the lake level system and there are also interconnected human influenced factors that can have some impact as well. The City of Canandaigua is charged with operating the outlet gates for the lake at the north end. There are two separate gate systems: the main outlet (behind Wegmans) and the feeder canal (next Seager's and the Sailboard shop). The main outlet gates are behind Wegmans and those are a set of large gates that are opened to try and release a large volume of water to provide for flood control. The feeder canal gate is open all of the time and is managed to release 35 cfs (cubic feet per second) or about 22 million gallons a



day to provide for enough stream flow for the Canandaigua Wastewater Treatment Plant and other wastewater plants on the outlet to discharge into without creating any environmental contamination issues. This is required by state law and is out of our local control.

22 million gallons a day seems like a lot - but it is important to remember that there is about 300 million gallons in the top inch of lake water. That is equivalent to 1 inch in lake level every 14 days. Summertime evaporation plays a much larger role. On a typical hot and sunny summer day we can lose approximately 50-60 million gallons per day through evaporation. That is equivalent to a 1-inch drop in the lake every 5-6 days! Our water supply has a minor impact on the lake with 10-15 million gallons a day being used as a water supply for about 70,000 people. Therefore, we lose the equivalent of about 1.0-1.5 inches of lake level every month.

Canandaigua Lake Outlets and Lake Level Control Gates

With all of these outflows - how do we fill the lake back up? Precipitation on both the lake and the surrounding watershed provides the inflows to more than balance the lake level during most years. One way to prove that we have significant inflows is that on an average year, the main outlet gates are open about 100 days a year to release the excess water that enters the system to try and prevent flooding. However, this system is also limited at times if we get too much rain. When these gates are open, we can

release about 200-500 million gallons a day (depending on lake level) that is equivalent to about 0.65 to 1.5 inches of lake level per day. In 2020, the main outlet gates have been closed since May 16th due to the dry conditions.

2020 has been a dry year - especially since mid-May. We have had a little over 10 inches of rain from late May to late September that fell on the lake and the surrounding watershed. We typically get another few inches of rain during this time frame. The rain on the lake alone does not supply enough water to sustain lake levels. The key to filling the lake is that the drainage area to the lake is about 10 times the size of the lake surface and has over 350 miles of streams that drain this system into the lake! However, since about early June the small to mid-size streams have been largely dry and the bigger streams like Naples Creek and West River- have had very low flows. This September was also one of the driest on record. All of these items in combination has provided the lake level deficit that we are now in.

On the hopeful side - Happy New Water Year! October 1st is the new hydrologic year- which is typically when the ground and stream systems are at their lowest level. We will start the see evaporation slow down and the rains will generate more runoff in the fall and winter seasons to fill the lake back up.