

Lake George

Page 1: AIS Monitoring and Water
 Clarity Report of June 29, 2016



Land & Water Conservation Department

*Michele Sadauskas, County Conservationist
Stephanie Boismenu, AIS Coordinator
Jonna Stephens Jewell, Program Assistant*

Oneida County Courthouse
P O Box 400, Rhinelander, Wisconsin 54501
Phone (715) 369-7835 Fax (715) 369-6268

Lake George AIS Monitoring and Water Clarity Report

WBIC: 1569600
Previous AIS Findings: Banded Mystery Snail (not verified), Chinese Mystery Snail, and Rusty Crayfish
New AIS Findings: Suspected invasive Forget Me Nots
Field Date: June 29, 2016
Field Crew: Stephanie Boismenu, AIS Coordinator, and Abbi Bowman, AIS Project Assistant, Oneida County Land and Water Conservation Department
Report By: Abbi Bowman

Stephanie and I monitored Lake George on June 29, 2016. Lake George is located just outside of Rhinelander, WI on Old Highway 8 heading towards Monico, WI in Oneida County (Figure 1). It is a drainage lake of 443 acres with a maximum depth of 26 feet. The substrate on the lake is 55% sand, 20% gravel, 10% rock, and 15% muck. There are plenty of fish species that dominate this lake which include but is not limited to Musky, Panfish, Largemouth Bass, Smallmouth Bass, Northern Pike, and Walleye. Lake George's trophic state is listed as eutrophic. Eutrophic lakes are characterized by an excessive amount of nutrients, allowing the lake to support an abundance of plants and/or algae. No alga was found on the lake, but the native plants were rather plentiful surrounding the shoreline. Lake George has numerous cabins, homes, resorts, and bars placed around its perimeter and can be a rather busy waterbody; all of which can lead to large amounts of land disruption and human activity.

Since there is only one public boat landing on all of Lake George located on E. Lake George Rd. off of County P, this is the landing we docked off of. We used aqua scopes to observe the boat landing's shoreline for any possible invasives, and then continued to canoe the perimeter of roughly half the lake. The weather was fairly cooperative in that it was sunny and warm, but it was somewhat windy which may have affected our dissolved oxygen (D.O.) readings. We visually monitored the rest of half of Lake George to the best of our ability in the couple hours we were given to observe and document our findings.

We used an already existing contour map of Lake George to assist us in finding the deep hole, and then further used the depth finder to bring us to the exact point of 26 feet to gather the most accurate data. Stephanie navigated the canoe until we found a good anchoring point. At this anchoring point, we took the GPS coordinates of our deep hole location and did measurements on water clarity using the Secchi disk, dissolved oxygen using the dissolved oxygen meter, and temperature (Table 1).

After data collection, we continued paddling the shoreline of Lake George. The lake itself is rather large in acreage, so we were only able to cover about half of Lake George's perimeter within a few hours. We did visual inspections from the canoe in the time we monitored, in which we spotted Forget Me Nots at several locations. Some of the Forget Me Not colonies were worse than others, but we made sure to mark GPS coordinates of their locations. Although we believe the Forget Me Nots to be the aquatic invasive plant species, they may also be one of the native terrestrial specie. We additionally stopped numerous times to get out of the canoe and search along the shore for snails, mussels, crayfish, and any other potential invasives. In addition to finding the Forget Me Not plants, we also found (but does not limit the entire plant/animal species of Lake George to our findings) a very thriving and diverse native plant community spread across the lake's shoreline as well as several invasive Chinese Mystery Snails. Forget Me Nots were the only potentially invasive species we came across in our findings.

Findings: All taken starting at 2:53 p.m.

Aquatic Invasive Species:

Unfortunately, we may have spotted several Forget Me Not patches spread randomly around the perimeter of Lake George.

Secchi:

The Secchi reading on this lake was 5 feet out of a 26 foot max depth. The water color was a medium murky green, so I was surprised we were able to see the Secchi disk that far below the surface.

Dissolved Oxygen:

These measurements were taken in three foot increments and can be seen in Table 1.

Figure 1. Map of Oneida County, WI with Lake George circled in red.

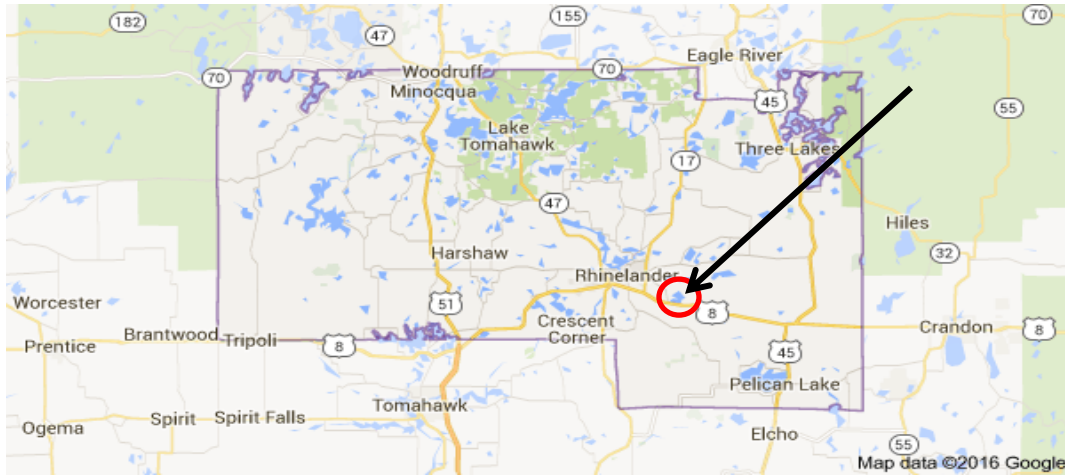
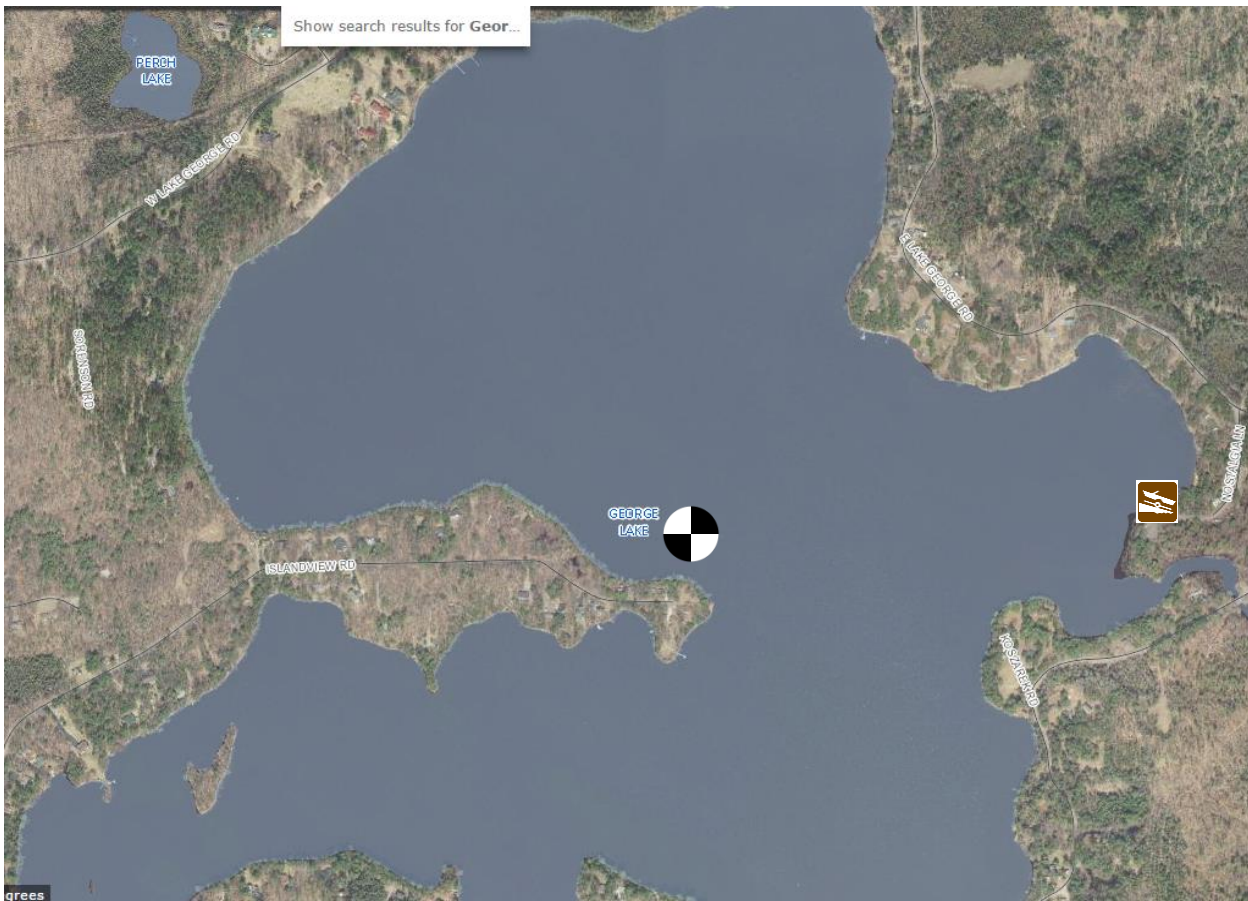


Figure 2. Map of Lake George; need to map out possible found invasives' coordinates.



WDNR Secchi Disk Readings: George Lake - Deep Hole LATITUDE 45.62 LONGITUDE -89.33

Table 1. Dissolved oxygen levels and temperatures at the deep hole.

Depth (Feet)	Dissolved Oxygen Levels (mg/L)	Temperature (F)
3	8.01	75.5
6	8.14	74.2
9	8.09	73.6
12	3.32	69.7
15	0.14	64.9
18	0.07	61.6
21	0.05	59.2
24	0.04	57.4

Resources: <http://dnr.wi.gov/lakes/lakepages/LakeDetail.aspx?wbic=1617200&page=facts>