

Hanson Lake

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 Clarity Report of July 18, 2018



Land & Water Conservation Department

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

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

Hanson Lake AIS Monitoring and Water Clarity Report

Field Date: July 18th, 2018
WBIC: 988200
Previous AIS Findings: None
New AIS Findings: None
Field Crew: Aubrey Nycz, AIS Project Leader, and Thomas Boisvert, AIS Project Assistant, Oneida County Land and Water Conservation Department
Report By: Thomas Boisvert

On July 18th, 2018, Aubrey and I went to Hanson Lake to implement AIS monitoring along with water clarity and quality assessments. Hanson Lake is a 35 acre mesotrophic lake located in Oneida County and has one public boat launch. The land surrounding the lake is owned by both the Oneida County Airport and Oneida County. Because of this, none of the lake shoreline is built up with housing, and the shoreline looks natural in almost all areas. Hanson Lake has a maximum depth of 23 feet, and the substrate is reported to be 35% sand, 20% gravel, 20% rock, and 25% muck. Along with reporting the depth and substrate, the Wisconsin Department of Natural Resources reports that the lake has musky, largemouth bass, and panfish present. We observed this firsthand as a lot of bluegill and largemouth bass were seen along the shoreline. Not many of the fish were large in size; however, the numbers of fish seen were high.

The weather while conducting research on Hanson Lake was ideal. The outside temperature was 78 degrees Fahrenheit, the sky was sunny, there was no wind, and the water clarity was good. There was no adverse weather to impact our measurements in any way.

When conducting our AIS lake survey, Aubrey and I did a complete shoreline scan while meandering in and out between different depths. We looked on the shoreline itself and also in the water, noting the plants and animals that we observed in the process. When possible, we got in the water to have a closer look at the bottom composition.

To observe the water clarity and quality of Hanson Lake, Aubrey and I went to the deep hole on the south side of the lake, almost directly in front of the public landing. After locating the deep hole with our sonar unit, we used a Secchi disk to measure clarity and a dissolved oxygen meter to measure water health. Oxygen is needed for a healthy fish population, and also for plants to respire at night. The measurements from the dissolved oxygen meter can tell us if the organisms in the lake would be under stress. Thankfully, both of these measurements were relatively average in nature, and there should be no concern for the health of Hanson Lake. The Secchi disk reading was 10.5 feet, and the dissolved oxygen readings can be found in table 2.

Aubrey and I did not observe any Aquatic Invasive Species while surveying Hanson Lake. We were glad to see that no new invasive species were present at this time. The lake also appears to be healthy, and some native plants were present and thriving. Some of the most common plants we observed on Hanson Lake can be seen below in table 1.

Findings: Taken 11:00 a.m. – 12:30 p.m. on July 18th, 2017

Aquatic Invasive Species: We did not find any new invasive species in Hanson Lake.

Secchi: The Secchi reading on this lake was 10.5 feet out of a 25 foot maximum depth. The water color was a brownish color and was clear when glancing across the lake.

Dissolved Oxygen: These measurements can be seen in Table 2.

Figure 1. Map of Oneida County, WI with Hanson Lake circled in red (approximate location)

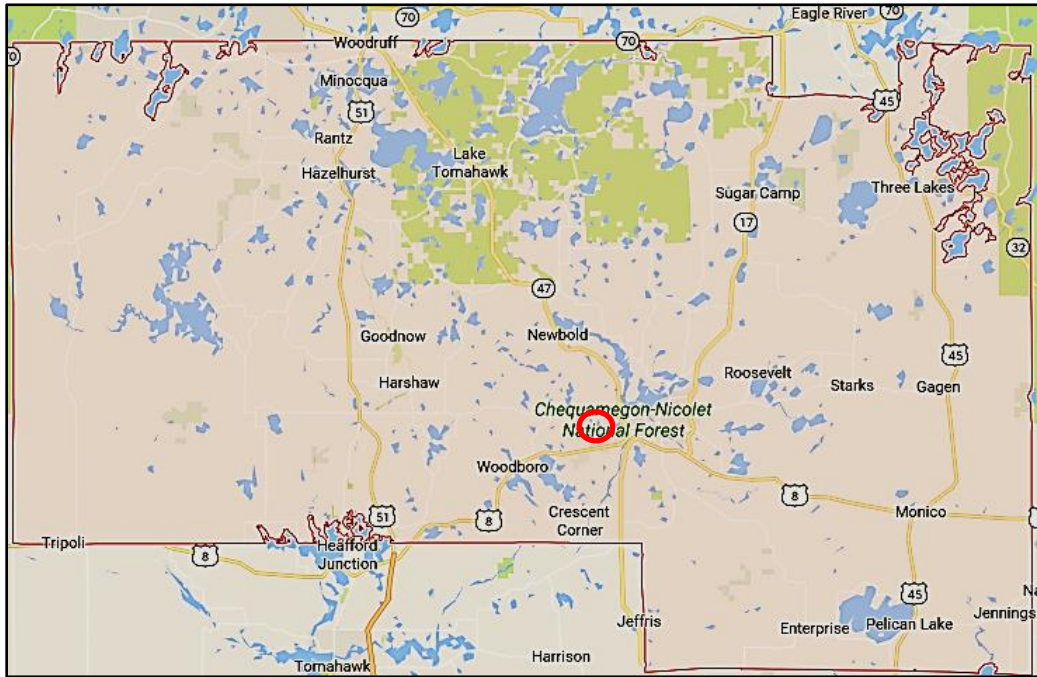


Figure 2. Map of Hanson Lake with the location of the Secchi disk reading labeled.

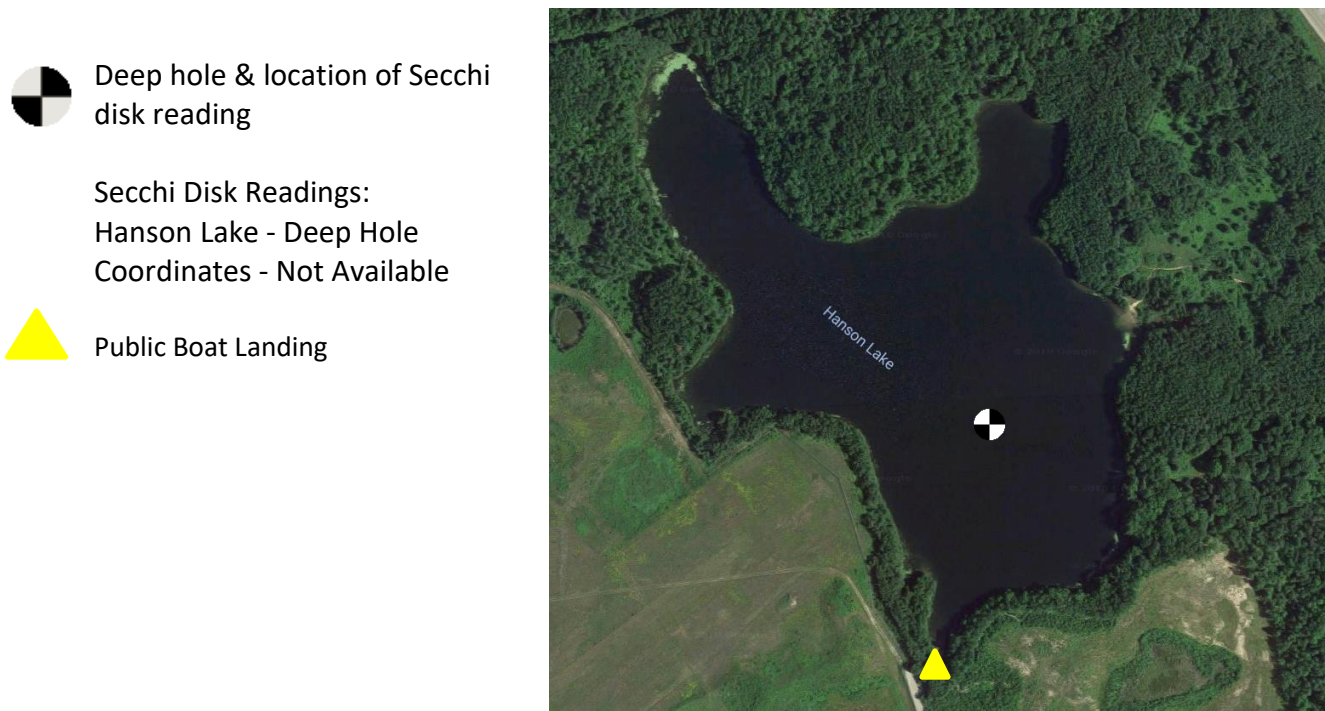





Table 1. Common plants found in Hanson Lake when monitoring.

<p>Common Name Scientific Plant Name</p>	<p>Description</p>	<p>Image</p>
<p>Bullhead Pond Lily (Spatterdock)</p> <p><i>Nuphar variegata</i></p>	<p>An aquatic plant with heart-shaped leaves that can grow to be 15 inches long. This plant also has a yellow, cup-shaped flower. This plant is native.</p>	 <p>Photo Credit: Jomegat's Weblog</p>
<p>Pickerel Weed</p> <p><i>Pontederia cordata</i></p>	<p>An aquatic plant with thin, bright green leaves. Emergent leaves tend to be arrow shaped with 6 parted, blue flowers. This plant is native.</p>	 <p>Photo Credit: ediblewildfood.com</p>
<p>Three-way Sedge</p> <p><i>Dulichium arundinaceum</i></p>	<p>An aquatic plant found mainly along the shoreline of lakes and rivers. Has unique leaves arranged in ranks of three, hence the name Three-way Sedge.</p>	 <p>Photo Credit: Peter M. Dziuk</p>


<p style="text-align: center;">Leather-leaf</p> <p style="text-align: center;"><i>Chamaedaphne calyculata</i></p>	<p>A plant that can grow in riparian habitats as well as wetland sites. Leather-leaf is often mistaken for blueberry, but an easy way to identify Leather-leaf is feeling the coarse textured leaf as well as noticing very little veining present.</p>	 <p style="text-align: center;">Photo Credit: Peter M. Dzuik</p>
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Table 2. Dissolved oxygen levels and temperatures at the deep hole.

Depth (Feet)	Dissolved Oxygen Levels (mg/L)	Temperature (F)	Percent Dissolved Oxygen
2	7.60	76.5	96.3
4	7.54	76.4	95.4
6	7.52	76.3	95.1
8	7.35	76.1	92.8
10	9.50	74.3	117.7
12	11.65	65.6	131.3
14	8.52	57.2	87.1
16	5.87	52.7	56.7
18	4.24	49.5	39.3
20	2.52	47.5	22.8
22	1.12	45.7	9.9