

# Hixon Lake

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Clarity Report on July 18<sup>th</sup>, 2018



Land & Water Conservation Department

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## Hixon Lake AIS Monitoring and Water Clarity Report

Field Date: July 18<sup>th</sup>, 2018  
WBIC: 1568900  
Previous AIS Findings: None  
New AIS Findings: None  
Field Crew: Aubrey Nycz, AIS Project Leader, Tom Boisvert, AIS Project Assistant,  
Oneida County Land and Water Conservation Department  
Report By: Aubrey Nycz

On July 18<sup>th</sup>, 2018, Tom and I went to Hixon Lake to perform a shoreline inspection, as well as complete water clarity and quality assessments. Hixon Lake is a 58 acre mesotrophic lake located in Oneida County and does not have public access. There is however a small launching site that the fire department uses; therefore, it is possible that individuals who do not own property on the lake have access to this waterbody. The lake has a maximum depth of 28 feet, and the substrate is reported to be 65% sand, 10% gravel, 0% rock, and 25% muck. Along with reporting the depth and substrate, the Wisconsin Department of Natural Resources also reports that the lake has panfish, largemouth bass, and walleye present. We observed this firsthand as schools of panfish were seen swimming in the shallow water.

The weather while conducting research on Hixon Lake was ideal. The outside temperature was around 78 degrees Fahrenheit, the sky was clear, and there was little to no wind. There was no adverse weather to impede our measurements in any way.

When conducting our AIS lake survey, Tom 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 we had observed in the process. Because Hixon Lake does not have public access, we found multiple private launching sites at different property owners' homes. We made sure to complete an AIS check at each of these launch sites, in the event that invasive species were being transported into the lake through those locations.

To observe the water clarity and quality of Hixon Lake, the AIS team went to the lake's deep hole, located on the north end of the lake. After locating the deep hole with our sonar unit, we used a Secchi disk to measure water 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 Hixon Lake. The Secchi disk reading was 7 feet, and the dissolved oxygen readings can be found in table 2.

Tom and I were glad to see that no new invasive species were present on Hixon Lake at this time, and the lake seems to be healthy with many native plants present and thriving. The three most common native plants we observed were Common Bladderwort, Pickerel Weed, and Watershield. These plants, along with others, can be seen below in table 1.

Findings: Taken between 2:00 p.m. – 4:00 p.m. on July 18<sup>th</sup>, 2018

Aquatic Invasive Species: We did not find any new invasive species along the perimeter of Hixon Lake.


Secchi: The Secchi reading on this lake was 7 feet out of a 28 foot maximum depth. The water was a brownish color, and appeared clear when glancing across the lake.

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

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









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

 Deep hole & location of Secchi disk reading



**Table 1.** Plants found in Hixon Lake when monitoring.

Common Plant Name & Scientific Plant Name	Description	Image
<p>Bullhead Pond Lily (Spadderdock)</p> <p><i>Nuphar variegata</i></p>	<p>An aquatic plant with heart-shaped leaves that can grow to be 15inches long. This plant also has a yellow, cup-shaped flower. This plant is native.</p>	 <p>Photo Credit: Jomegat's Weblog</p>
<p>Coontail</p> <p><i>Ceratophyllum demersum</i></p>	<p>An aquatic plant that is often heavily branched and light green to brown in color. This plant typically grows to be 2 meters tall and has whorled leaves that branch once or twice. Coontail can appear to be bushy at the tip. This plant is native.</p>	 <p>Photo Credit: illinoiswildflowers.info</p>
<p>Common Bladderwort</p> <p><i>Utricularia vulgaris</i></p>	<p>An aquatic plant with leaves containing sacks that trap small invertebrates. This plant usually has unrooted stems that easily tangle with other plants. In the water, this plant tends to look cloudy or slimy. This plant is native.</p>	 <p>Photo Credit: frenchhill.org</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>Watershield <i>Brasenia Schreberi</i></p>	<p>An aquatic plant with stems up to 2 meters long. This plant has small floating leaves and reddish purple flowers that have 6-8 petals. This plant is native.</p>	 <p>Photo Credit: Shannon Sharp</p>
<p>White Water Lily <i>Nymphaea odorata</i></p>	<p>An aquatic plant that has large, round leaves that can grow to be 12 inches in diameter. White water lilies also have large, white flowers with many petals. This plant is native.</p>	 <p>Photo Credit: Joseph A. Marcus</p>

**Table 2.** Temperatures and dissolved oxygen levels at the deep hole.

Depth (Feet)	Temperature (°F)	Dissolved Oxygen Levels (mg/L)	Percent Dissolved Oxygen (%)
2	77.7	8.08	103.8
4	76.6	7.67	97.4
6	76.1	7.49	94.7
8	70.1	4.53	53.6
10	61.5	1.34	14.5
12	55.3	0.47	4.7
14	50.0	0.23	2.2