

Sand Lake

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Clarity Report of August 15, 2018



Land & Water Conservation Department

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Sand Lake AIS Monitoring and Water Clarity Report

Field Date: August 15th, 2018
WBIC: 1015800
Previous AIS Findings: None
New AIS Findings: None
Field Crew: Aubrey Nycz, AIS Project Leader, and Jody Partin, AIS Project Assistant,
Oneida County Land and Water Conservation Department
Report By: Jody Partin

On August 15th, 2018, Aubrey and I went to Sand Lake to implement AIS monitoring along with water clarity and quality assessments. Sand Lake is a 37 acre oligotrophic lake located in Oneida County and has one public boat launch and swimming beach. The land surrounding the lake is composed of private owners. Sand Lake has a maximum depth of 19 feet, and the substrate is reported to be 90% sand, 10% gravel, 0% rock, and 0% muck. Along with reporting the depth and substrate, the Wisconsin Department of Natural Resources reports that the lake has largemouth bass and panfish present.

The weather while conducting research on Sand Lake was pleasant. The outside temperature was in the mid 70 degrees Fahrenheit, the sky was cloudy, there was little wind, and the water clarity was excellent. 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.

To observe the water clarity and quality of Sand Lake, Aubrey and I went to the deep hole near the center of the lake, just up from 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 Sand Lake. The Secchi disk reading was 16 feet, and the dissolved oxygen readings can be found in table 2.

Aubrey and I did not observe any Aquatic Invasive Species while surveying Sand 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 Sand Lake can be seen below in table 1.

Findings: Taken 2:00 p.m. – 3:00 p.m. on August 15th, 2018.

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

Secchi: The Secchi reading on this lake was 16 feet out of a 19 foot maximum depth. The water color was a blueish 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 Sand Lake circled in red (approximate location)



Figure 2. Map of Sand Lake with the location of the boat landing and Secchi disk reading labeled.



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

Common Name Scientific Plant Name	Description	Image
<p>Water Shield</p> <p><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>Common Bladderwort</p> <p><i>Utricularia macrorhiza</i></p>	<p>An aquatic plant with leaves containing small 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>Pickereel Weed <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>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>
<p>Floating Leaf Pondweed <i>Potamogeton natuns</i></p>	<p>An aquatic plant with both floating and submersed leaves. Submersed leaves are long and narrow. Floating leaves are oblong and slightly heart-shaped at base. It provides valuable grazing for ducks and geese, and is considered good fish habitat. This plant is native.</p>	 <p>Photo credit: Gary Fewless</p>

Table 2. Dissolved oxygen levels and temperatures at the deep hole.

Depth (Feet)	Dissolved Oxygen Levels (mg/L)	Temperature (F)	Percent Dissolved Oxygen
2	7.96	79.1	104.3
4	7.97	78.9	104.2
6	8.05	78.7	105.1
8	8.05	78.5	104.8
10	8.19	77.8	105.8
12	8.19	76.7	104.7
14	8.09	75.3	101.8
16	4.19	73.1	51.6
18	0.11	69.6	1.3