Burrows Lake

Land & Water Conservation Department

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Burrows Lake AIS Monitoring and Water Clarity Report

WBIC:	975000
Previous AIS Findings:	None
New AIS Findings:	None
Field Date:	August 7, 2014
Field Crew:	Stephanie Boismenue and Alyssa Nycz, AIS Project Assistants, Oneida County Land and Water Conservation Department
Report by:	Alyssa Nycz

Stephanie and I monitored Burrows Lake on Thursday, August 7th. Before launching our canoe, we spoke with a gentleman who lives on the lake and approached us at the landing. He stated that he used to help monitor the lake with a group of citizen volunteers. However, the group is not planning on monitoring the lake this summer and the following two summers, since the data they have collected in previous years had little variation from year to year. The man we spoke with was also able to point out the deepest site in the lake, giving us a better idea of where it is (Figure 1).

After launching the canoe, Stephanie and I used the depth finder to navigate to the lake's deep hole. Our GPS was not functioning, but we anchored at a location where the depth fluctuates between 26 and 27 feet. At one point, the depth finder read a depth of 30 feet, which is unusual because the deepest depth documented by the Wisconsin Department of Natural Resources is 28 feet. Even more surprisingly, our depth finder located a depth of 58 to 59 feet. We could not find this exact point again, so this observation may very well be an error the depth finder.

Once we reached the lake's deep hole, we obtained a Secchi disk reading of 6.25 feet. Our oxygen readings started out relatively normal, as compared to lakes we have previously monitored, but dropped suddenly after 10 feet (Table 1).

Burrows Lake is not reported to contain any aquatic invasive species, and our observations along portions of the shoreline support this. We first canoed along the shoreline northeast of the deep hole. The lake bed was sandy here, and we did not observe much vegetation or any snails or mussels at this location.

We also canoed along part the northeast shoreline where a property owner clearly uses a private boat launch. Once again, we did not find any cause for suspicion here. The same

applies to our third stretch of shoreline, which included both sides of the boat landing and the picnic area on the southwest shore.

Stephanie and I found it interesting that many properties on the lake had houses built within 10 feet of the water's edge. Otherwise, we did not find anything of concern on Burrows Lake. After pulling the canoe out of the water, we disinfected it and our equipment with a mixture of 1.5 liters of cold water and 3 tablespoons bleach, so we could monitor Swamsauger Lake in the same day.

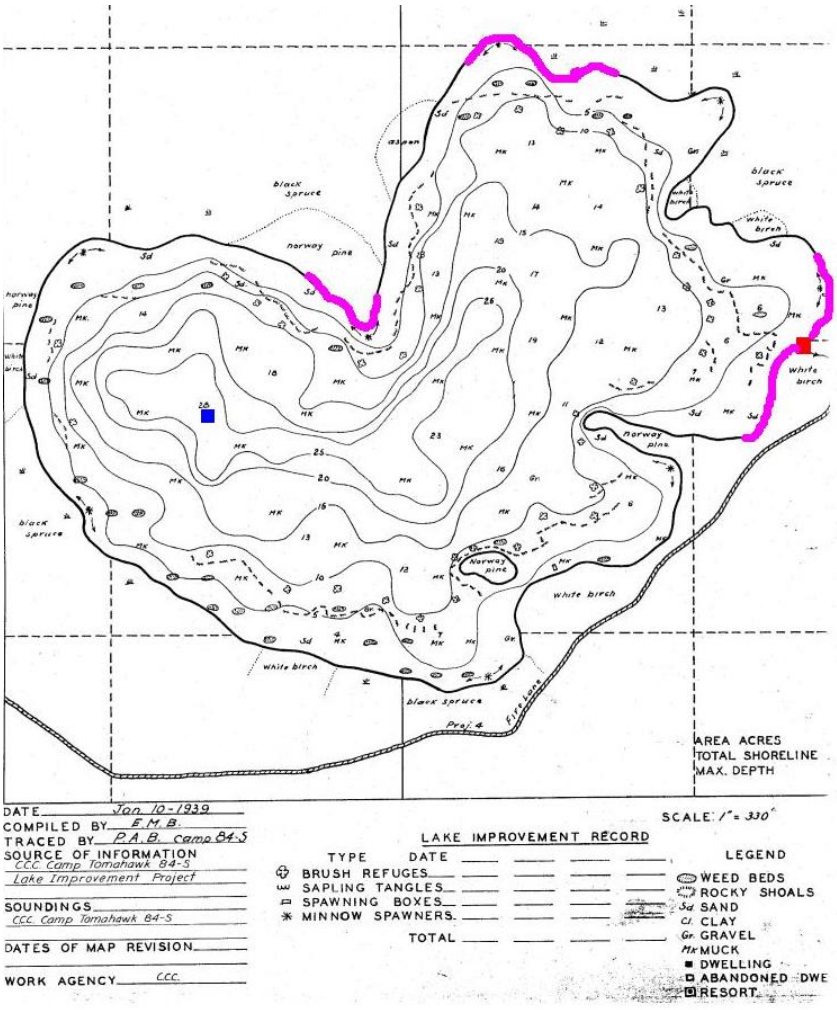

Figure 1. A map of Burrows Lake: the pink lines represent approximate areas where we scanned the shoreline for the presence/absence of AIS, the red square marks the boat landing, and the blue square marks our deep hole site.

Table 1. Dissolved oxygen levels and temperature readings were taken near our deep hole sire, with depths fluctuating between 24 and 26 feet.

Depth	Dissolved Oxygen Level	Temperature
1’	8.50 mg/L	77.4^{o}F
4’	8.63 mg/L	75.2^{o}F
7’	7.30 mg/L	73.1^{o}F
10’	5.42 mg/L	71.2^{o}F
13’	0.79 mg/L	67.6^{o}F
16’	0.14 mg/L	60.5^{o}F
19’	0.07 mg/L	58.0^{o}F
22’	0.08 mg/L	57.3^{o}F
25’	0.08 mg/L	57.0^{o}F