



Log Details - #5

Aurora Lake

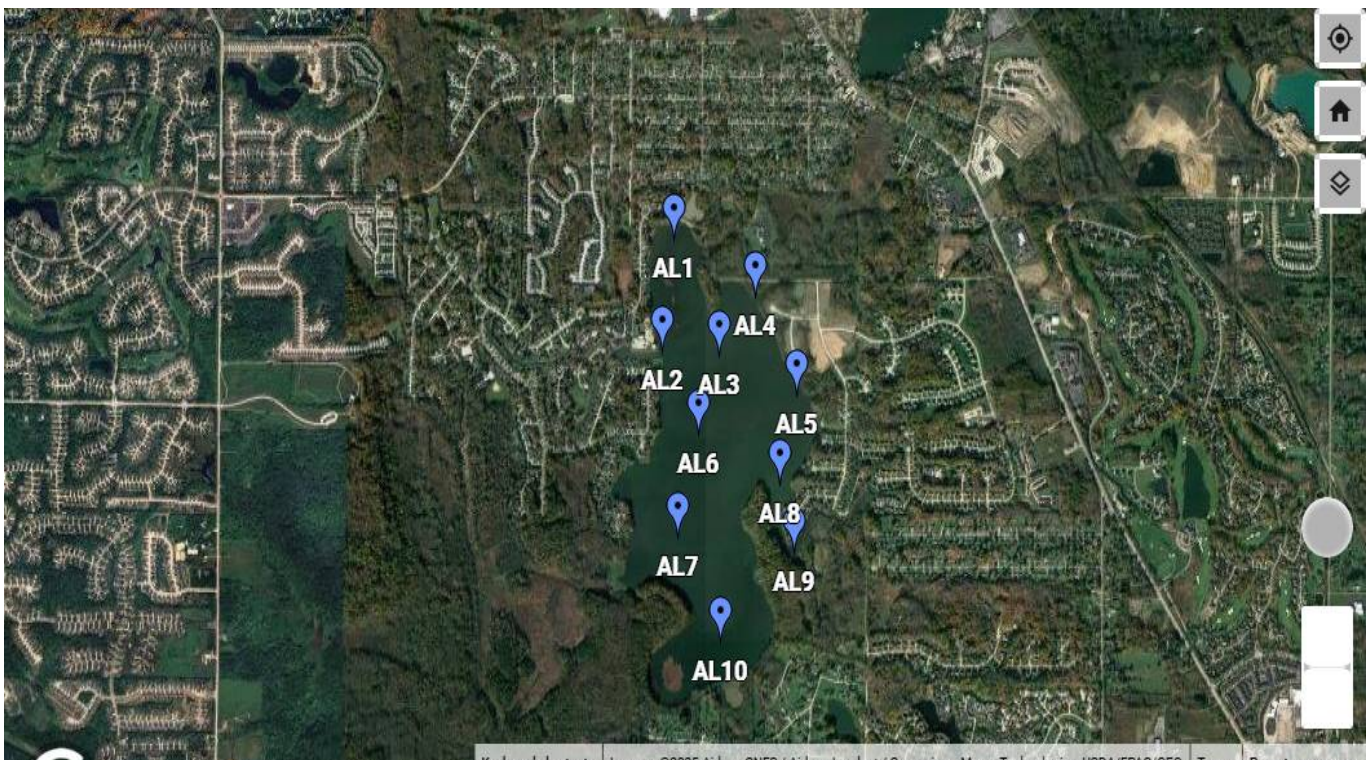
1206 Surfside Cir, Aurora, OH 44202,
USA

General Info

General Info

Weather Data				General Information	
Temperature	69°F			Start Date/Time	08/21/2025 04:22 PM
Conditions	Overcast clouds	Wind	5.01 mph North-East	Lead Staff	Ed Kwietniewski
Humidity	87%	Pressure	1016 hPa	Additional Staff	Ed Kwietniewski
Sunrise/Sunset	6:41 AM / 8:16 PM				

Map



Map Graphics

Type	Coordinates	Label	Area	Perimeter
marker	41.322641, -81.385715	AL10	N/A	--
marker	41.327089, -81.388548	AL7	N/A	--
marker	41.326444, -81.380823	AL9	N/A	--
marker	41.329345, -81.381767	AL8	N/A	--
marker	41.331471, -81.387174	AL6	N/A	--
marker	41.333147, -81.380651	AL5	N/A	--
marker	41.337336, -81.383398	AL4	N/A	--
marker	41.334823, -81.385801	AL3	N/A	--
marker	41.339785, -81.388805	AL1	N/A	--
marker	41.335016, -81.389578	AL2	N/A	--

Observation

Species	Type	Severity	Location	Treated
Planktonic Algae	Other	Low	Site Wide	No

Photos



Launch area



Launch area



AL10



Near beach



Near AL9



Near AL4

Account:
 Customer Name: Aurora Lake
 Site Name: Deep point
 Your initials:
 Date: 8/20/25

Algal Enumeration: Conducted at Center of lake
 Depth: 10-20m
 Notes: Chlamydomonas, minor algal biomass noted but not significant
 Deep point, microcystin collected

Depth	Temperature	Conductivity	Dissolved Oxygen	pH	ORP	Chlorophyll a	Phaeo
1	78.1	530	6.21	7.98	20.7	0.09	0.06
2	78.2	530	6.21	7.97	20.4	0.09	0.06
3	78.2	531	6.08	7.95	20.0	0.11	0.05
4	78.2	531	6.02	7.95	20.4	0.20	0.05
5	78.2	531	6.02	7.95	20.4	0.20	0.05
6	78.1	531	6.02	7.95	20.4	0.20	0.05
7	78.1	531	5.95	7.95	20.4	0.20	0.05
8	78.1	531	5.92	7.95	20.4	0.20	0.05
9	78.1	531	5.91	7.91	20.2	0.20	0.05
10	78.0	530	5.89	7.90	20.3	0.19	0.05
11	78.0	530	5.89	7.89	20.5	0.22	0.05
12	78.0	530	5.85	7.89	20.7	0.24	0.05
13	77.9	530	5.85	7.82	20.5	0.24	0.05

Chlamydomonas check

AL1	AL2	AL3	AL4	AL5	AL6	AL7	AL8	AL9	AL10
1.85	2.07	2.13	2.23	2.23	2.23	2.23	2.23	2.23	1.97
.45	.58	.56	.61	.58	.60	.60	.74	1.55	.55

Raw data

Notes

Today we conducted our 5th visitation to Aurora Lake. Overall, the lake continues to look to be in excellent shape with regards to nuisance algae growth and watercolor was fairly consistent through the whole lake. Chlorophyll-a concentrations continue to showcase low values across the entirety of the lake as well as within our constructed depth profile. This is further confirmed with buoy data which is showing near undetectable concentrations of chlorophyll-a for almost the past week. The algal enumeration sample from our last visitation did come back showing a much more diverse algal assemblage that included 16 different species of algae (more diverse than what we saw last year). It should be noted though that the percent community composition was still dominated by blue-green algal types vs more desirable green algae and other varieties. Regardless, the noted reduction in total algal concentration with an increase in apparent overall algal diversity should be taken as a step in a positive direction for management of the lake. Interestingly, the most common blue-green algae found was Planktothrix which can become a bright, pink or red-purple color. Should the lake turn pink or red-purple, please take caution as the lake may be experiencing a Planktothrix bloom.

Depth profile data showed the lake as mixed at the time of sampling with many parameters staying consistent from surface to bottom. No concerning information was observed during our depth profile sampling.

A nutrient sample was collected at the deep point as a grab sample last visitation. This sample did come back (on 8/20/2025) and showcased a result of 80 ug/L for total phosphorus as P. This echoes what we collected and observed last year where collected samples ranged between 80 and 100 ug/L and is an improvement over the 2018 data from EnviroScience which showcased values as

high as 240 ug/L. Please note that nutrient concentrations can be variable and this sample is a snapshot of the given condition at the time of sampling. Typical cited thresholds for suggesting a productivity decrease from a eutrophic (highly productive) system to one that is mesotrophic (middlingly productive) would have a desired value of 20 ug/L. Many lakes shoot for this threshold as a goal for nutrient reduction but can be very difficult to achieve in highly eutrophic, shallow systems. Additional samples can be collected if treatments become less necessary into the lake summer/early fall to observe a more complete picture of Aurora Lake's water column nutrient content.

Chlorophyll-a values for spatial observations are included below:

AL1: 1.55 ug/L

AL2: 2.07

AL3: 2.03

AL4: 2.23

AL5: 2.03

AL6: 2.09

AL7: 2.23

AL8: 2.64

AL9 5.82 (biased due to shallow location as previously mentioned)

AL10: 1.97

No applications were conducted due to low algal density. A microcystin was collected with at least one more to be collected in September.

Thanks!

Ed Kwietniewski