Little Green Lake Water Quality Monitoring Data Sheet

Station Info

Station Name: Outlet	**Date:** 7/23/24	**Start Time:** 12:14
SWIMS Station ID: 10060855	**WBIC:** 162400	**End Time:** 12:55
GPS Coordinates in the Field: 43.734527, -88.972258		
Team Member Name(s): R. Schultz		

Weather & Site Observations

Staff Gage Level Staff Gage ID: Gage Level (ft.):	**Weather (circle or highlight one):** (1) = Sunny 2= Rain 3 = Partly Cloudy 4 = Cloudy 5= Snow 6 = Thunderstorm	**Weather over the past two days:** Clear / sunny
Water Depth at Site (ft.): 0.80 *Device used:* Stafia rod	**Water Column Appearance (circle or highlight one):** 1 = Clear 2= Murky (3) = Other: algal scum on surface	**Water Color (circle or highlight one):** **use the white portion of the secchi disk to determine color* 1 = Blue (2)= Green 3 = Brown 4 = Red 5 = Yellow

Algae Perception - *Represents the amount of observed blue-green algae in the water at your sample location*

Circle or highlight one:

1 = Beautiful, could not be nicer

2= Very minor aesthetic problems; excellent for swimming and boating enjoyment

(3) = Swimming and aestetic enjoyment of the lake slightly impaired because of high algae levels

4 = Desire to swim and enjoyment of the lake is substantially reduced because of algae; would not swim, but boating is OK

5 = Poor aesthetics due to algae prevents swimming and boating

Other Observations: not HAB, fine particulate algae

Transparency

Secchi Depth **Deep Hole monitoring only Record as a decimal. Round to the nearest 1/4 ft.*	**Trial #1 (ft.)**	**Trial #2 (ft.)**	**Average (ft.)**	**Notes:**
Transparency Tube **Inlet and Outlet monitoring only*	**Trial #1 (cm)** 25	**Trial #2 (cm)** 23	**Average (cm)** 24	**Notes:**

Water Samples

Parameter:	**Collected?**		**Preserved?**		**On Ice?**		**Labeled?**	
TP	(Y)	N	Y	N	(Y)	N	(Y)	N
TN	(Y)	N	Y	N	(Y)	N	(Y)	N
Orthophosphate	(Y)	N	Y	(N)	(Y)	N	(Y)	N
NO2 +NO3 as Nitrogen	(Y)	N	Y	N	(Y)	N	(Y)	N
~~Chlorophyll a~~	~~Y~~	~~N~~	~~Y~~	~~N~~	~~Y~~	~~N~~	~~Y~~	~~N~~

For Deep Hole site only: Has 0-6 foot integrated sample AND < 1 meter from bottom sample been collected? ~~Y~~ ~~N~~

Has lab "Test Request Form" been completed and photograph taken? *(circle one)* Ye (Y) N

Will samples be shipped or dropped off? *(Circle one)* Shipped (Dropped off) Tim S.

Additional Metrics

YSI Probe Parameters: HANNA

Temperature: 24.37 °C	**Turbidity:** see T tube *
Dissolved Oxygen (DO): 90.5 % 7.55 ppm	**pH:** 8.67

Little Green Lake - Stream Flow Field Data Sheet

Station Info

Station Name: Outlet	**Date:** 7/23/24	**Start Time:** 12:14
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Team Member Name(s): R Schultz		

Stream Width & Depth

Waterway Width (ft.): 5 | **# of Intervals:** 5 | **Other Observations:** algal scum from lake

Length Assessed (ft.) 20 | **Width of Intervals:** 1

Interval	Water Depth (ft.)	Interval	Water Depth (ft.)
1	0.00	11	
2	0.81	12	
3	0.62	13	
4	0.85	14	
5	0.00	15	
6		16	
7		17	
8		18	
9		19	
10		20	

Total Sum of Depths:

Average Depth (Total Sum of Depths/ # of Intervals):
/ 5 =

Cross-Sectional Area (Average Depth x Stream Width):
x 5 =

Stream Depth Measurement Reminders:
- Measure water depth at equal intervals across the stream.
- The first depth is always zero to represent the stream edges.
- Only measure in decimal feet (not feet and inches)

Velocity Measurement

Float Trials	Time (Seconds)
1	1,200
2	1,200
3	1,200
4	1,200
SUM	4,800

* fine granular algae on surface, not moving stagnant with input from lake

Average Float Time (Sum of Trials/ # of Trials):
4,800 / 4 =

Average Surface Velocity (Length Assessed/ Average Float Time):
20 / =

20 min = 1,200 sec.

* flow too weak to push tennis ball

- see images 7/23/24
* extremely low flow
* float test failure
- > 20 mins not able to travel 20 ft!
* least amount of outflow observed this far

Calculating Stream Flow

Correction Values
For rough, loose, coarse, weedy bottom: 0.8
For smooth bottom: 0.9

Corrected Surface Velocity (Correction Value x Average Surface Velocity):
x

Final Corrected Stream Flow (Cross-Secitonal Area x Corrected Surface Velocity x 0.76):
x x 0.76 =

Measuring stream flow with the surface float test method overestimates flow by 24%. This is why we must **multiply our stream flow by 0.76 for a final corrected stream flow discharge.*