

Little Green Lake Water Quality Monitoring Data Sheet

Station Info	Station Name: Inlet A	Date: 9/9/2020	Start Time: 13:00
	SWIMS Station ID: 10060853	WBIC: 5027630	End Time: 13:40
	GPS Coordinates in the Field: 43.739914, -88.973824		
	Team Member Name(s): R. Schultz, H. Heyse		

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: rain, overcast
	Water Depth at Site (ft.): Device used: station	Water Column Appearance (circle or highlight one): 1 = Clear 2 = Murky 3 = Other:	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 aesthetic 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: very clear flow, likely ground water		

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) 2120	Trial #2 (cm) 120	Average (cm) 120	Notes: v. clear

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:
	Temperature: 16.71 °C Dissolved Oxygen (DO): 9.94 ppm / 103.8 % Turbidity: >120 T tube pH: 6.88

* collect data on other side of culvert ☒ done 9/9

Little Green Lake - Stream Flow Field Data Sheet

on Info	Station Name: Inlet A	Date: 9/9/2008	Start Time: 13:00
	SWIMS Station ID: 10060853	WBIC: 5027630	End Time: 13:45
	Team Member Name(s): R. Schultz H. Kuyse		

Stream Width & Depth	Waterway Width (ft.): 4.0		# of Intervals: 4		Other Observations: during storm flow wetted width likely 71 ft to either side
	Length Assessed (ft.): 20		Width of Intervals: 1		
	Interval	Water Depth (ft.)	Interval	Water Depth (ft.)	Total Sum of Depths: 0.54
	1	0.0	11		
	2	0.28	12		Average Depth (Total Sum of Depths / # of Intervals): $0.54 / 4 = 0.135$
	3	0.20	13		
	4	0.0	14		Cross-Sectional Area (Average Depth x Stream Width): $0.135 \times 4 = 0.54$
	5		15		
	6		16		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)
	7		17		
8		18			
9		19			
10		20			

Velocity Measurement	Float Trials	Time (Seconds)	tennis ball / leaf ↓ 75 78 79 77
	1	210	
	2	180	
	3	225	
	4	200	
	SUM	815	

Average Float Time (Sum of Trials / # of Trials):
 $815 / 4 = 203.75$

Average Surface Velocity (Length Assessed / Average Float Time):
 $20 / 203.75 = 0.0981$

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): $0.8 \times 0.0981 = 0.785$
Final Corrected Stream Flow (Cross-Sectional Area x Corrected Surface Velocity x 0.76): $0.54 \times 0.785 \times 0.76 = 0.322$	

*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.

* calculations done w/ tennis ball data for consistency, note difference between leaf though...