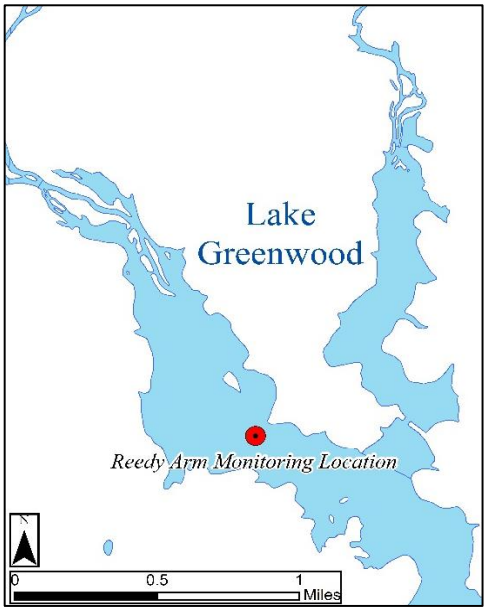
Lake Greenwood Continuous Monitoring Study Periodic Report

September 10, 2019 - November 13, 2019

This study funded through a joint effort consisting of Greenwood County Lake Management (GCLM), Laurens County Water and Sewer Commission (LCWSC), City of Greenville, and Renewable Water Resources (ReWa).

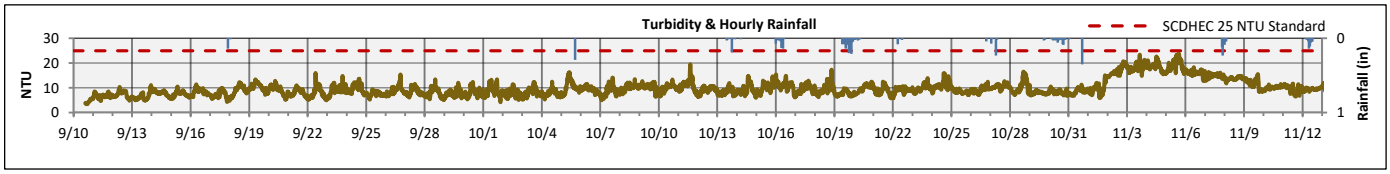
Continuous Monitoring Report
Lake Greenwood at Reedy Arm
September 10, 2019 -- November 13, 2019

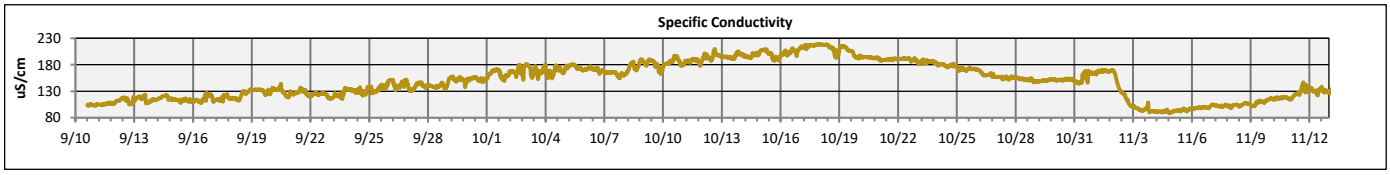


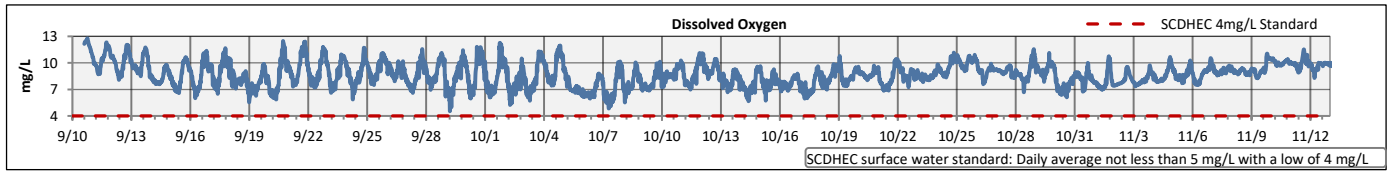
MONITORING LOCATION CHARACTERISTICS	
Station Location Name	Reedy Arm
Latitude	34.347141 °N
Longitude	82.109702 °W
Appoximate Drainage Area	260 square miles

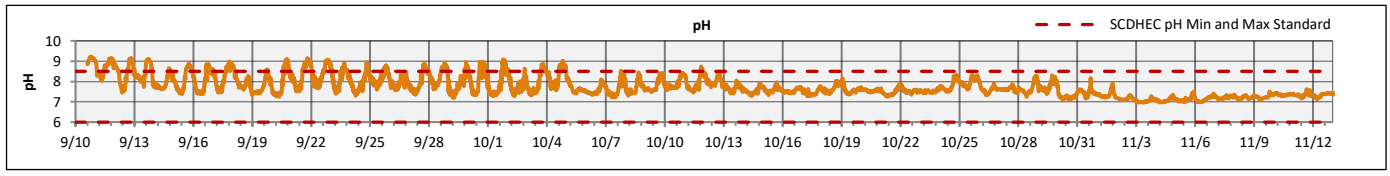
RAINFALL CHARACTERISTICS Data collected at rain gauge located at Ekom Beach Road crossing of Reedy River	
Number of Storms Over 0.1 in"	10
Max Storm Rainfall	1.49 in
Total Rainfall for Period (Length of deployment: 10 weeks)	5.12 in

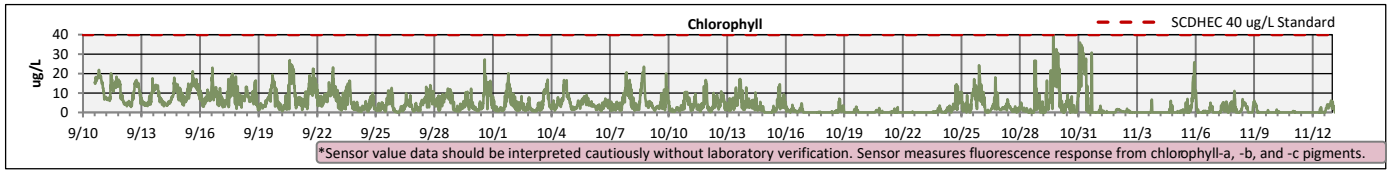
CONTINUOUS WATER QUALITY PARAMETERS:	SUMMARY STATISTICS				
	MIN	MAX	MEDIAN	MEAN	ST. DEV.
Turbidity (NTU):	3	24	9	10	3
Sp. Conductivity (uS/cm):	89	219	151	150	34
Dissolved Oxygen (mg/L):	4.5	12.8	8.7	8.7	1.3
pH:	7.0	9.2	7.6	7.7	0.5
Chlorophyll* (ug/L)	0.0	46	3	4	5
Temperature (°F):	47	89	73	72	10

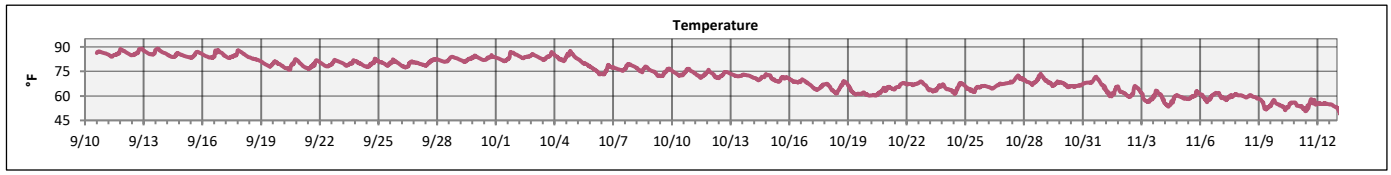












REPORT GENERATED ON 1/22/2020

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Explanation of Statistics:	
MIN	The minimum value recorded by the datasonde during the reporting period.
MAX	The maximum value recorded by the datasonde during the reporting period.
MEDIAN	The median value represents the 50th percentile of the distribution of all values recorded during the reporting period. Half of the recorded values during this period fell above the median value and half fell below this value.
MEAN	The average of all the 15-minute values recorded by the datasonde during this reporting period.
ST. DEV.	The standard deviation is a measure of the variation within a dataset. A large standard deviation indicates significant variability in the dataset and a small standard deviation represents low variability.

Discrete Sample Results Collected to Date

Analyzed by Pace Analytical and ETT Environmental Laboratories

Sample Date	Collected By	TSS mg/L	TN mg/L	TKN mg/L	NO3+NO2 mg/L	TP mg/L	Chl-a ug/L
*9/11/2018 13:30	CPW	--	1.10	--	--	0.110	30.8
9/26/2018 9:10	GCLM	9.6	0.88	0.51	0.37	0.091	24.5
11/7/2018 7:40	GCLM	11.5	1.9	ND	1.4	0.054	2.7
11/19/2018 9:30	GCLM	27.4	1.2	ND	0.87	0.12	21.1
11/28/2018 9:20	GCLM	10.7	1.5	ND	1.3	0.093	4
3/27/2019 9:12	GCLM	7.8	1.5	ND	1.1	ND	5.4
5/22/2019 9:07	GCLM	3.6	1.00	0.52	0.49	ND	6.7
5/29/2019 8:41	GCLM	9.7	1.37	0.67	0.7	ND	20.7
6/19/2019 8:49	GCLM	3	0.94	ND	0.44	ND	10.7
6/26/2019 8:40	GCLM	ND	1.4	ND	0.96	ND	4.6
7/10/2019 8:55	GCLM	7.3	1.4	0.54	0.89	ND	11.7
7/24/2019 8:40	GCLM	5.1	1.3	0.69	0.57	ND	10.7
8/14/2019 8:36	GCLM	2.9	1.1	0.63	0.48	ND	9.3
8/28/2019 8:40	GCLM	3.8	1.1	ND	0.66	ND	21.2
9/11/2019 8:30	GCLM	8.1	0.97	0.65	0.32	ND	17.9

*Samples collected by Greenwood Commissioners of Public Works (CPW) are analyzed for TN, TP, and Chl-a only.

These samples are collected in order to provide information on parameters which cannot be reliably measured in-situ. These sample results may be used in the future to develop statistical relationships with continuously monitored parameters in an effort to estimate continuous concentrations of these parameters. A sufficient sample size for regression analysis is typically 20 samples or more collected across a range of weather conditions.

Definitions	
Chl-a	Chlorophyll-a
ND	Non Detected at the Reporting Limit
NO3+NO2	Nitrate + Nitrite as Nitrogen
TKN	Total Kjeldahl Nitrogen
TN	Total Nitrogen
TP	Total Phosphorus
TSS	Total Suspended Solids