

# Lake Greenwood Continuous Monitoring Study Periodic Report

March 24, 2021 - June 03, 2021

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

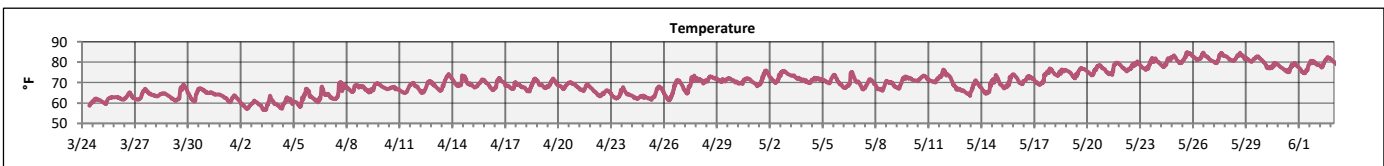
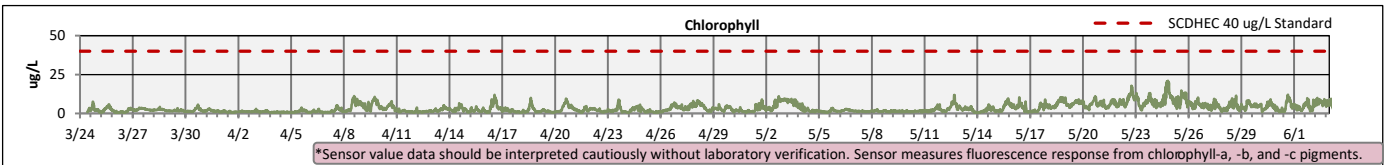
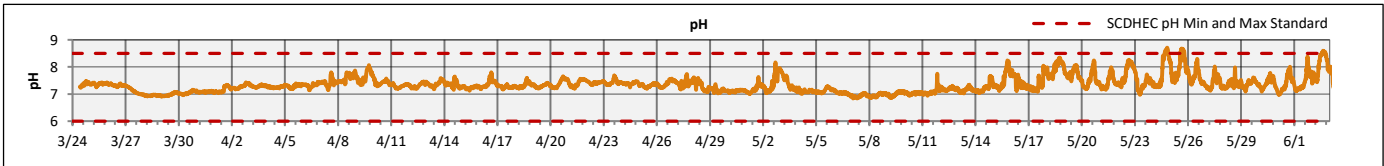
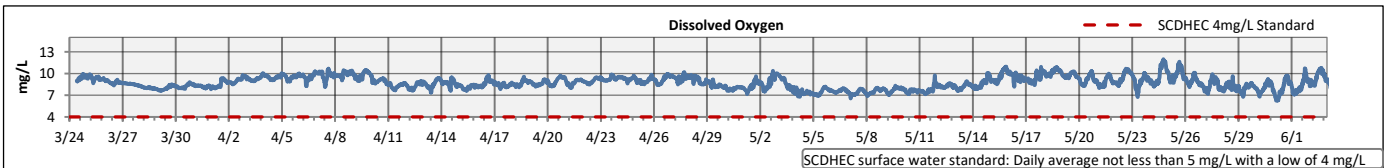
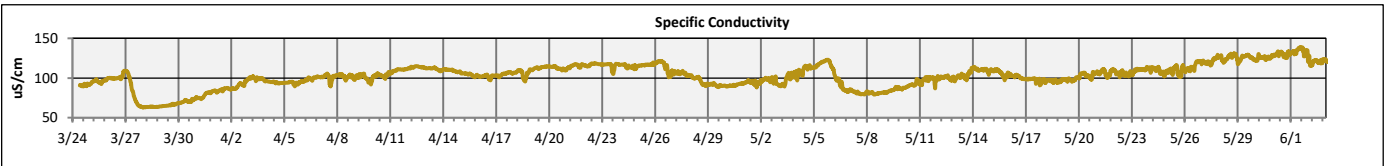
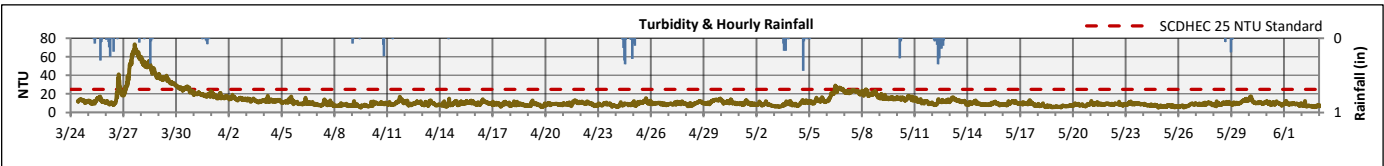
March 24, 2021 -- June 3, 2021



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

RAINFALL CHARACTERISTICS	
Data collected at rain gauge located at Ekum Beach Road crossing of Reedy River	
Number of Storms Over 0.1 in"	13
Max Storm Rainfall	1.5 in
Total Rainfall for Period (Length of deployment: 10 weeks)	6.6 in

CONTINUOUS WATER QUALITY PARAMETERS:	SUMMARY STATISTICS				
	MIN	MAX	MEDIAN	MEAN	ST. DEV.
Turbidity (NTU):	5	74	10	12	8
Sp. Conductivity (uS/cm):	63	139	103	103	14
Dissolved Oxygen (mg/L):	6.3	12.0	8.7	8.7	0.9
pH:	6.8	8.7	7.3	7.3	0.3
Chlorophyll* (ug/L)	0.42	21	2	3	3
Temperature (°F):	56	85	70	70	6





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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	ND	1.1	ND	ND	0.110	30.8
09/26/2018 09:10	GCLM	9.6	0.88	0.51	0.37	0.091	24.5
11/07/2018 07:40	GCLM	11.5	1.9	ND	1.40	0.054	2.7
11/19/2018 09:30	GCLM	27.4	1.2	ND	0.87	0.12	21.1
11/28/2018 09:20	GCLM	10.7	1.5	ND	1.30	0.093	4.0
03/27/2019 09:12	GCLM	7.8	1.5	ND	1.10	ND	5.4
05/22/2019 09:07	GCLM	3.6	1.0	0.52	0.49	ND	6.7
05/29/2019 08:41	GCLM	9.7	1.37	0.67	0.70	ND	20.7
06/19/2019 08:49	GCLM	3.0	0.94	ND	0.44	ND	10.7
06/26/2019 08:40	GCLM	ND	1.4	ND	0.96	ND	4.6
07/10/2019 08:55	GCLM	7.3	1.4	0.54	0.89	ND	11.7
07/24/2019 08:40	GCLM	5.1	1.3	0.69	0.57	ND	10.7
08/14/2019 08:36	GCLM	2.9	1.1	0.63	0.48	ND	9.3
08/28/2019 08:40	GCLM	3.8	1.1	ND	0.66	ND	21.2
09/11/2019 08:30	GCLM	8.1	0.97	0.65	0.32	ND	17.9
04/22/2020 08:45	GCLM	8.3	1.4	0.4	1.0	0.048	2.0
05/27/2020 08:20	GCLM	17.9	1.2	0.56	0.61	0.081	2.0
06/17/2020 08:20	GCLM	33.3	1.3	0.57	0.78	0.05	**
07/15/2020 08:30	GCLM	3.4	1.2	0.6	0.56	0.027	**
07/29/2020 08:30	GCLM	5.3	1.3	0.62	0.68	ND	6.0
08/19/2020 08:45	GCLM	ND	1.2	0.72	0.49	0.038	2.0
09/24/2020 09:00	GCLM	6.77	0.989	0.44	0.549	0.092	21.3
10/08/2020 09:12	GCLM	7.1	1.0	0.13	0.87	0.05	5.0
10/22/2020 08:52	GCLM	5.97	0.916	0.46	0.456	0.054	18.6
04/06/2021 05:58	GCLM	5.16	10.56	9.83	0.73	0.05	23.7
04/20/2021 09:05	GCLM	5.97	1.154	0.18	0.974	0.05	2.5
05/04/2021 08:59	GCLM	4.52	1.01	0.28	0.73	0.05	7.0
05/18/2021 08:50	GCLM	4.19	0.826	0.2	0.626	ND	9.4

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

\*\* Error at laboratory resulting in no Chl A values.

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