Lake Greenwood Continuous Monitoring Study Periodic Report

March 6, 2019 - May 14, 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
March 6, 2019 -- May 14, 2019

MONITORING LOCATION CHARACTERISTICS

<table>
<thead>
<tr>
<th>Station Location Name</th>
<th>Reedy Arm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Latitude</td>
<td>34.347141° N</td>
</tr>
<tr>
<td>Longitude</td>
<td>82.109702° W</td>
</tr>
<tr>
<td>Approximate Drainage Area</td>
<td>260 square miles</td>
</tr>
</tbody>
</table>

RAINFALL CHARACTERISTICS
Data collected at rain gauge located at Ekom Beach Road crossing of Reedy River

| Number of Storms Over 0.1 in" | 12 |
| Max Storm Rainfall            | 1.29 in |
| Total Rainfall for Period     | 7.34 in |

CONTINUOUS WATER QUALITY PARAMETERS:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>MIN</th>
<th>MAX</th>
<th>MEDIAN</th>
<th>MEAN</th>
<th>ST. DEV.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turbidity (NTU)</td>
<td>3</td>
<td>42</td>
<td>10</td>
<td>11</td>
<td>5</td>
</tr>
<tr>
<td>Sp. Conductivity (uS/cm)</td>
<td>61</td>
<td>113</td>
<td>94</td>
<td>93</td>
<td>10</td>
</tr>
<tr>
<td>Dissolved Oxygen (mg/L)</td>
<td>6.1</td>
<td>12.3</td>
<td>9.5</td>
<td>9.4</td>
<td>1.2</td>
</tr>
<tr>
<td>pH</td>
<td>6.9</td>
<td>8.8</td>
<td>7.4</td>
<td>7.5</td>
<td>0.4</td>
</tr>
<tr>
<td>Chlorophyll* (ug/L)</td>
<td>0.7</td>
<td>28</td>
<td>4</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Temperature (°F)</td>
<td>49</td>
<td>82</td>
<td>66</td>
<td>66</td>
<td>9</td>
</tr>
</tbody>
</table>

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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
*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:

#### 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

#### TSS | TN | TKN | NO3+NO2 | TP | Chl-a
--- | --- | --- | --- | --- | ---
|-- | 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

*Sample Date Collected By TSS TN TKN NO3+NO2 TP Chl-a
*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
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