# Continuous Water Quality Monitoring Periodic Report

## Rocky Branch A (June 8, 2023 - July 18, 2023)

|   | DESCRIPTION   |               | CONTINUOUS                     | SUMMARY STATISTICS  |                     |  |                                    |                       |
|---|---|---------------|--------------------------------|---------------------|---------------------|--|------------------------------------|-----------------------|
| PARAMETER   |   |               | WATER QUALITY PARAMETERS:      | MINIMUM<br>OBSERVED | MAXIMUM<br>OBSERVED | MEDIAN<br>OBSERVED                               | MEAN<br>OBSERVED                   | STANDARD<br>DEVIATION |
| STREAM NAME:                                      | Rocky Branch  |               | STAGE (FT):                    | 1.4                 | 6.6                 | 1.4  | 1.5                                | 0.3                   |
| LOCATION:   | Maxcy Gregg Park  |               |                                |                     |                     |  |                                    |                       |
| ADDRESS:  | 1650 Park Circle<br>Columbia, SC 29201                        |               | TEMPERATURE (°F):              | 68                  | 87                  | 76   | 76                                 | 3                     |
| COORDINATES:                                      | 33.995864, -81.021842   |               | TURBIDITY (NTU):               | 3                   | 1103                | 11   | 52                                 | 99                    |
| TMDL/IMPAIRMENT:                                  | Fecal Coliform  |               | 101.5.5111 (1110).             | Ů                   | 1100                |  | 02                                 | 00                    |
| NEIGHBORING<br>LANDUSE:                           | Residential and commercial                                    |               | pH:                            | 6.1                 | 6.9                 | 6.7  | 6.7                                | 0.1                   |
| SPATIAL LOCATION:                                 | Most upstream site  |               | •                              |                     |                     |  |                                    |                       |
| TOTAL NO. STORMS<br>OVER 0.1 INCH:                | 16  |               | SPECIFIC CONDUCTIVITY (mS/cm): | 0.013               | 0.654               | 0.148  | 0.136                              | 0.035                 |
| MAX. DAILY RAINFALL:                              | 1.2 inches  |               | DISSOLVED                      |                     |                     |  |                                    |                       |
| TOTAL RAINFALL<br>(FOR PERIOD):                   | 8.2 inches  |               | OXYGEN (mg/L):                 | 5.5                 | 9.0                 | 7.3  | 7.3                                | 0.5                   |
|   |   |               | Stage & Rain                   | all                 | <u> </u>            |  | <u> </u>                           |                       |
| # 12  |   | 7             | 1                              |                     | T I                 | T P  |                                    | 0.0                   |
| # 12  |   |               |                                |                     |                     |  |                                    | 0.5                   |
| 0   | 6/14 6/16 6/18 6/20 6/  | /22           | 6/24 6/26 6/28                 | 6/30 7/2 7          | /4 7/6 7/8          | 7/10 7/12  | 7/14 7/16                          | 7/18                  |
|   |   |               |                                |                     |                     |  |                                    |                       |
| 95 1  |   |               | Water Ten                      | р                   | <del> </del>        |  |                                    |                       |
| 85<br>15  | A   |               |                                | ~~~                 | ~/~/                | ~~~  | MM                                 | <b>~</b>              |
| 65  |   | F             |                                |                     |                     |  |                                    |                       |
| 55 <del>                                   </del> | 6/14 6/16 6/18 6/20 6   | /22           | 6/24 6/26 6/28                 | 6/30 7/2 7          | 7/4 7/6 7/          | 8 7/10 7/12                                      | 7/14 7/16                          | 7/18                  |
|   |   |               |                                |                     |                     |  |                                    |                       |
| 1200  |   | _             | Turbidity                      | ,<br>               |                     |  | •                                  |                       |
| 800<br>400  |   | +             |                                |                     |                     |  |                                    |                       |
| <b>2</b> 400                                      |   | -             |                                |                     |                     | م من   |                                    |                       |
| 6/8 6/10 6/12                                     | 6/14 6/16 6/18 6/20   | 6/2           | 2 6/24 6/26 6/28               | 6/30 7/2            | 7/4 7/6 7           | /8 7/10 7/1                                      | 2 7/14 7/16                        | 7/18                  |
|   | rd: All pH values not less than 6.0 and no                    | ot mo         | ore than 8.5 pH                |                     |                     |  |                                    |                       |
| 7.5   |   |               |                                |                     |                     |  |                                    |                       |
| ₹ 6.5<br>6.0                                      |   | 77            | 7                              |                     |                     |  | winds                              |                       |
| 5.5 6/8 6/10 6/12                                 | 6/14 6/16 6/18 6/20 6   | .   .<br>6/22 | 6/24 6/26 6/28                 | 6/30 7/2            | 7/4 7/6 7           | //8 7/10 7/2                                     | 12 7/14 7/16                       | 5 7/18                |
| 0,0 0,10 0,12                                     | 0,14 0,10 0,10 0,20   | 0,22          | 0,24 0,20 0,20                 | 0/30 //2            | 7,4 7,0 7           | 70 7710 77                                       | 7/14 //10                          |                       |
|   |   |               | Specific Cond                  | ductivity           |                     |  |                                    |                       |
| 0.8   |   | $\neg$        |                                |                     |                     |  |                                    |                       |
|   |   | +             |                                |                     |                     | <del>                                     </del> |                                    |                       |
|   |   |               |                                | 4 4                 |                     |  |                                    |                       |
| 8 0.6<br>0.4<br>0.2<br>0.0                        | 6/14 6/16 6/18 6/20   | 6/2:          | 2 6/24 6/26 6/28               | 6/30 7/2            | 7/4 7/6             | 7/8 7/10 7/                                      | 12 7/14 7/1                        | 6 7/18                |
| 8 0.6<br>0.4<br>0.2<br>0.0                        | 6/14 6/16 6/18 6/20   | 6/2:          | 2 6/24 6/26 6/28               | 6/30 7/2            | 7/4 7/6             | 7/8 7/10 7/                                      | 12 7/14 7/1                        | 6 7/18                |
| 0.6<br>0.4<br>0.0<br>6/8 6/10 6/12                | 6/14 6/16 6/18 6/20  dard: Daily average not less than 5 mg/L |               |                                |                     | 7/4 7/6             |  | 12 7/14 7/1<br>- 4 mg/L (SCDHEC Lo |                       |
| 0.6<br>0.4<br>0.0<br>6/8 6/10 6/12                |   |               |                                |                     | 7/4 7/6             |  |                                    |                       |
| 8 0.6 0.2 0.0 6/8 6/10 6/12                       |   |               |                                |                     | 7/4 7/6             |  |                                    |                       |

Note: Data gaps appear when the sonde is removed for calibration or when the flow depth is below the sensors

# **Continuous Water Quality Monitoring Periodic Report**

Rocky Branch A (June 8, 2023 - July 18, 2023)

## **Explanation of Statistics:**

| MINIMUM<br>OBSERVED   | The minimum of the values recorded by the datasonde in 15 minute intervals.                |
|-----------------------|--|
| MAXIMUM<br>OBSERVED   | The maximum of the values recorded by the datasonde in 15 minute intervals.                |
| MEDIAN OBSERVED       | The median of all the values recorded by the datasonde in 15 minute intervals.             |
| MEAN OBSERVED         | The average of all the values recorded by the datasonde in 15 minute intervals.            |
| STANDARD<br>DEVIATION | The standard deviation of all the values recorded by the datasonde in 15 minute intervals. |

### Sampled Data:

|                                 | Sample 1  |         | Sample 2  |         |      |         |      |         |
|---------------------------------|-----------|---------|-----------|---------|------|---------|------|---------|
| Analyte (units)                 | 6/22/2023 |         | 6/22/2023 |         |      |         |      |         |
|                                 | Time      | Results | Time      | Results | Time | Results | Time | Results |
| Escherichia coli<br>(MPN/100mL) | 9:45      | 7,310   | 10:55     | 3,680   |      |         |      |         |
| Total Suspended Solids (mg/L)   | 9:45      | 80.5    | 10:55     | 47.4    |      |         |      |         |
| Total Phosphorus<br>(mg/L)      | 9:45      | 0.16    | 10:55     | 0.13    |      |         |      |         |
| Total Nitrogen<br>(mg/L)        | 9:45      | 0.88    | 10:55     | 0.80    |      |         |      |         |

#### **Notes:**

**Data Gaps** 

There were no data gaps at ROCA during this monitoring period.

### Potential Illicit Discharges and Abnormal Events:

Specific conductivity increased several times during the monitoring period, which may have been a result of the Maxcy Gregg pool discharge.

# Continuous Water Quality Monitoring Periodic Report

## Rocky Branch B (June 8, 2023 - July 18, 2023)

|  | CONTINUOUS  |                                       | SUMMARY STATISTICS |                    |                    |                  |                           |  |
|--|---|---------------------------------------|--------------------|--------------------|--------------------|------------------|---------------------------|--|
| PARAMETER  | DESCRIPTION   | DESCRIPTION WATER QUALITY PARAMETERS: |                    |                    | MEDIAN<br>OBSERVED | MEAN<br>OBSERVED | STANDARD<br>DEVIATION     |  |
| STREAM NAME:   | Rocky Branch  | STAGE (FT):                           | 3.4                | 7.6                | 3.5                | 3.6              | 0.4                       |  |
| LOCATION:  | Olympia Ave Crossing  |                                       |                    |                    |                    |                  |                           |  |
| ADDRESS:   | 510 Heyward St<br>Columbia, SC 29201  | TEMPERATURE (°F):                     | 68                 | 88                 | 78                 | 77               | 3                         |  |
| COORDINATES:   | 33.982578, -81.035036   | TURBIDITY (NTU):                      | 2                  | 642                | 12                 | 40               | 63                        |  |
| TMDL/IMPAIRMENT:   | Fecal Coliform  | TORBIDITY (NTO).                      | 2                  | 042                | 12                 | 40               | 63                        |  |
| NEIGHBORING<br>LANDUSE:  | Residential and commercial  | pH:                                   | 6.3                | 8.2                | 7.2                | 7.2              | 0.2                       |  |
| SPATIAL LOCATION:  | Most Downstream Site  |                                       |                    |                    |                    |                  |                           |  |
| TOTAL NO. STORMS<br>OVER 0.1 INCH:   | 15  | SPECIFIC CONDUCTIVITY (mS/cm):        | 0.022              | 0.333              | 0.172              | 0.157            | 0.046                     |  |
| MAX. DAILY RAINFALL:   | 1.3 inches  | DISSOLVED OXYGEN                      | 5.4                | 9.8                | 7.5                | 7.5              | 0.7                       |  |
| TOTAL RAINFALL (FOR PERIOD):   | 8.5 inches  | (mg/L):                               | 5.4                | 9.0                | 7.5                | 7.5              | 0.7                       |  |
| 14   |   | Stage & Rainf                         | fall               |                    |                    |                  | 0.0                       |  |
| # 10<br>88 6<br>2<br>6/8 6/10 6/12   | 6/14 6/16 6/18 6/20 6/22  | 2 6/24 6/26 6/28                      | 6/30 7/2 7         | 7/4 7/6 7/8        | 3 7/10 7/12        | 7/14 7/16        | 0.5<br>1.0<br>1.5<br>7/18 |  |
|  |   | Water Tem                             | np                 |                    |                    |                  |                           |  |
| 85<br>75<br>65<br>55<br>6/8 6/10 6/12  | 6/14 6/16 6/18 6/20 6/2   | 2 6/24 6/26 6/28                      | 6/30 7/2           | 7/4 7/6 7/         |                    | 2 7/14 7/16      | 7/18                      |  |
| 800<br>600<br>400<br>200<br>6/8 6/10 6/12  | 6/14 6/16 6/18 6/20 6,  | Turbidity<br>/22 6/24 6/26 6/28       | 6/30 7/2           | 7/4 7/6 7          | //8 7/10 7/1       | 12 7/14 7/16     | 7/18                      |  |
|  |   |                                       |                    |                    |                    |                  |                           |  |
| SCDHEC in-stream standa<br>9.0<br>8.0<br>7.0<br>6.0<br>6/8 6/10 6/12                   | rd: All pH values not less than 6.0 and not |                                       | 6/30 7/2           | 7/4 7/6 7          | //8 7/10 7/2       | 12 7/14 7/10     | 5 7/18                    |  |
|  |   | Specific Cond                         | ductivity          |                    |                    |                  |                           |  |
| 0.4<br>0.3<br>0.1<br>0.0<br>6/8 6/10 6/12  | 6/14 6/16 6/18 6/20 6/  | 22 6/24 6/26 6/28                     | 6/30 7/2           | 7/4 7/6            | 7/8 7/10 7/        | 12 7/14 7/1      | 5 7/18                    |  |
| 14<br>12<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10 | ndard: Daily average not less than 5 mg/L w                                     |                                       | ~~~                | <b>^^^^^^^^^^^</b> |                    | 4 mg/L (SCDHEC L | ~^                        |  |
| 4 +  | 6/14 6/16 6/18 6/20 6,  | 22 6/24 6/26 6/28                     | 6/30 7/2           | 7/4 7/6            | 7/8 7/10 7/        | /12 7/14 7/1     | 6 7/18                    |  |

Note: Data gaps appear when the sonde is removed for calibration or when the flow depth is below the sensors

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| STANDARD<br>DEVIATION | The standard deviation of all the values recorded by the datasonde in 15 minute intervals. |

### Sampled Data:

| Analyte (units)                 | Sample 1  |         | Sample 2  |         | Sample 3  |         | Sample 3  |         |
|---------------------------------|-----------|---------|-----------|---------|-----------|---------|-----------|---------|
|                                 | 6/15/2023 |         | 6/22/2023 |         | 6/22/2023 |         | 6/29/2023 |         |
|                                 | Time      | Results | Time      | Results | Time      | Results | Time      | Results |
| Escherichia coli<br>(MPN/100mL) | 10:35     | 244     | 9:55      | 6,150   | 11:05     | 6,150   | 6:30      | 786     |
| Total Suspended Solids (mg/L)   |           |         | 9:55      | 32.4    | 11:05     | 44.3    |           |         |
| Total Phosphorus<br>(mg/L)      |           |         | 9:55      | 0.11    | 11:05     | 0.13    |           |         |
| Total Nitrogen<br>(mg/L)        |           |         | 9:55      | 0.84    | 11:05     | 0.90    |           |         |

### **Notes:**

#### **Data Gaps**

There were no data gaps at ROCB during this monitoring period.

## Potential Illicit Discharges and Abnormal Events:

Specific conductivity increased several times during the monitoring period, which may have been a result of the Maxcy Gregg pool discharge.