

# Rocky Branch Monitoring Sites

## Monitoring Data Summary for April 30<sup>th</sup>, 2020 – June 3<sup>rd</sup>, 2020

### *Data Gaps*

- At the ROCA station, brief periods of turbidity data from May 25<sup>th</sup>-27<sup>th</sup> and from May 30<sup>th</sup>-June 2<sup>nd</sup> were removed from the dataset due to the sensor being buried, causing the turbidity values to become obscured.
- At the ROCA station, a brief period of DO data was removed from May 30<sup>th</sup>-June 2<sup>nd</sup> from the dataset due to the sensor being buried.
- At the ROCA and ROCB stations, the stage data from the CS451 pressure transducers was not recorded from May 15<sup>th</sup>-May 17<sup>th</sup>.

### *SCDHEC Standards*

- The ROCA and ROCB stations did not record any pH values outside of the acceptable SCDHEC range of 6 to 8.5
- The ROCA and ROCB stations recorded average DO concentrations of 6.8 mg/L and 8.2 mg/L, respectively, which are well above the SCDHEC daily average minimum standard of 5 mg/L.
- The minimum DO concentration recorded was 2.8 mg/L at ROCA station and 5.6 mg/L at the ROCB station. The ROCA station was below the SCDHEC discrete minimum standard of 4 mg/L while the ROCB station was above this value.

### *Storm Events*

- The ROCA station recorded 13 storm events during this monitoring period, resulting in 9.8 inches of total precipitation. The ROCB station also recorded 11 storm events during this monitoring period, resulting in 8.9 inches of total precipitation.
- Both ROCA and ROCB stations exhibited typical responses to storm events during this monitoring period.

### *Potential Illicit Discharges and Abnormal Events*

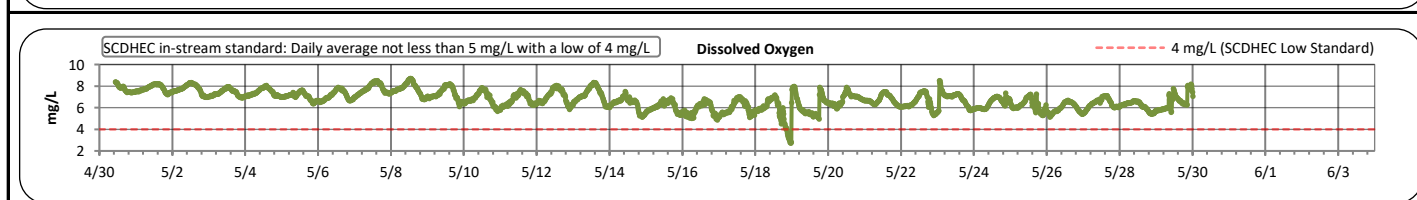
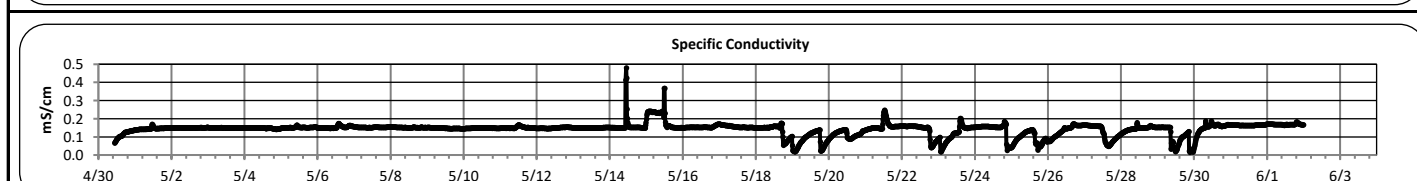
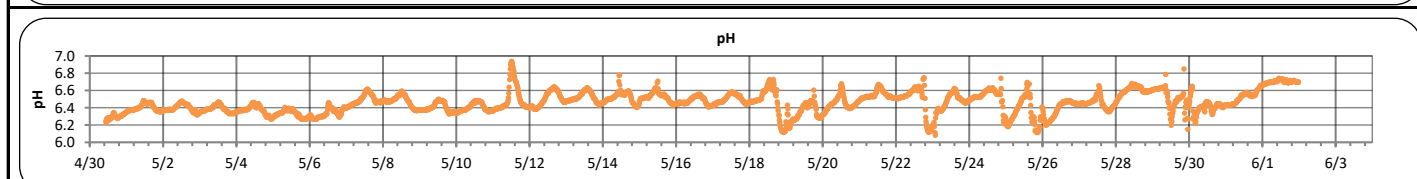
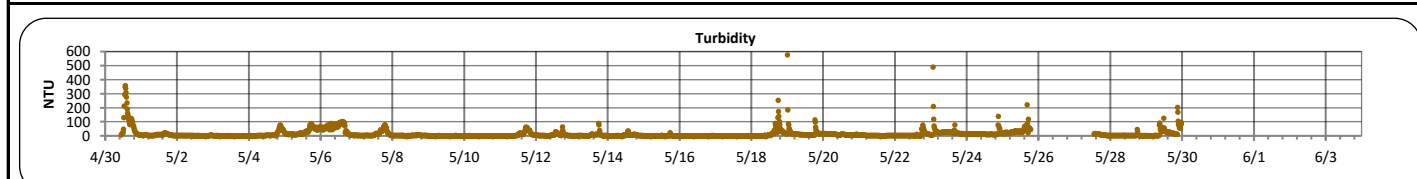
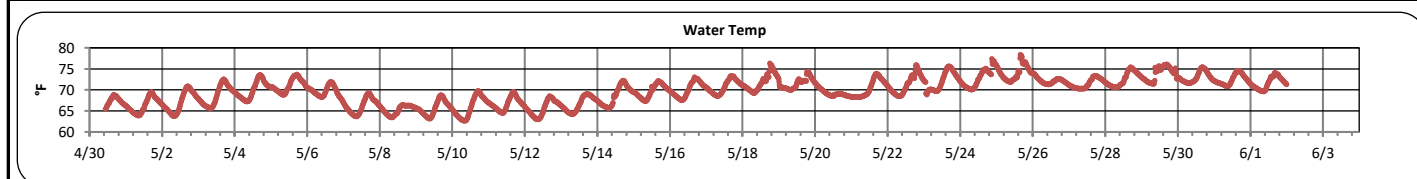
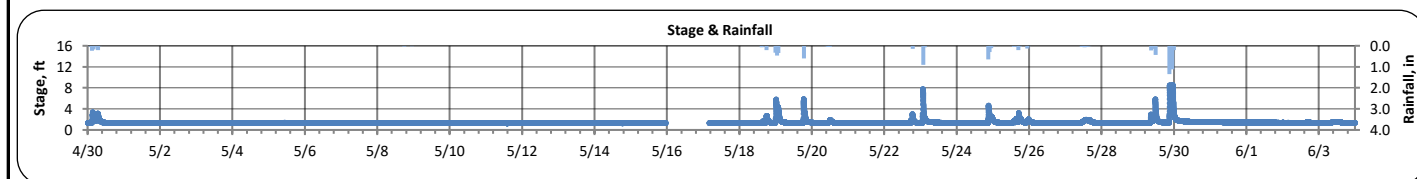
- At the ROCA station, several increased levels of specific conductivity were recorded simultaneously with increased levels of pH. These occurrences were observed on May 1<sup>st</sup>, 5<sup>th</sup>, 6<sup>th</sup>, 11<sup>th</sup>, 14<sup>th</sup>, 15<sup>th</sup>, 21<sup>st</sup>, 23<sup>rd</sup>, 28<sup>th</sup>, and 30<sup>th</sup>. These elevated levels of specific conductivity and pH were likely a result of the Maxcy Gregg pool discharge.
- At the ROCB station, specific conductivity levels were significantly elevated on May 3<sup>rd</sup>, 5<sup>th</sup>, 9<sup>th</sup>, 12<sup>th</sup>, 15<sup>th</sup>-16<sup>th</sup>, 20<sup>th</sup>, 21<sup>st</sup>-22<sup>nd</sup> and 28<sup>th</sup>-29<sup>th</sup>.

### *Flow Measurements*

- No flow measurements were taken at the ROCA or ROCB stations during this monitoring period.

Rocky Branch A (April 30, 2020 - June 3, 2020)

PARAMETER	DESCRIPTION	CONTINUOUS WATER QUALITY PARAMETERS:	SUMMARY STATISTICS				
			MINIMUM OBSERVED	MAXIMUM OBSERVED	MEDIAN OBSERVED	MEAN OBSERVED	STANDARD DEVIATION
STREAM NAME:	Rocky Branch	STAGE (FT):	1.3	7.8	1.3	1.4	0.4
LOCATION:	Maxcy Gregg Park	TEMPERATURE (°F):	63	78	70	70	3
ADDRESS:	1650 Park Circle Columbia, SC 29201	TURBIDITY (NTU):	1	578	3	14	31
COORDINATES:	33.995864, -81.021842	pH:	6.1	6.9	6.5	6.5	0.1
TMDL/IMPAIRMENT:	Fecal Coliform	SPECIFIC CONDUCTIVITY (mS/cm):	0.015	0.481	0.150	0.143	0.034
NEIGHBORING LANDUSE:	Residential and commercial	DISSOLVED OXYGEN (mg/L):	2.8	8.7	6.8	6.8	0.8
SPATIAL LOCATION:	Most upstream site						
TOTAL NO. STORMS OVER 0.1 INCH:	13						
MAX. DAILY RAINFALL:	3.8 inches						
TOTAL RAINFALL (FOR PERIOD):	9.8 inches						



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 (April 30, 2020 - June 3, 2020)**

**Explanation of Statistics:**

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

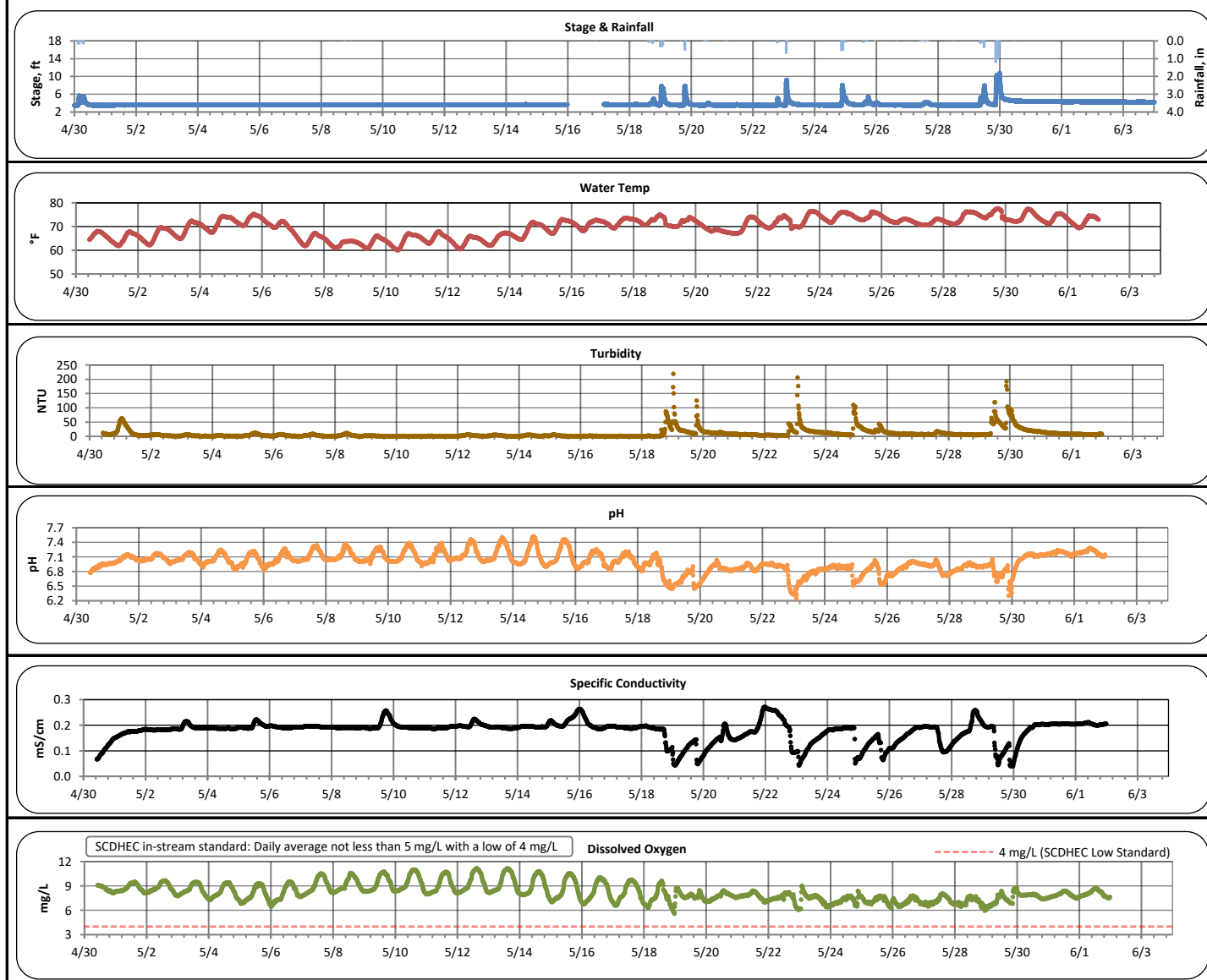
**Grab Sample Data:**

Analyte (units)	Sample 1		Sample 2		Sample 3		Sample 4	
	5/20/2020		5/20/2020					
	Time	Result	Time	Result	Time	Result	Time	Result
<i>Escherichia coli</i> (MPN/100mL)	10:58	3,232	12:23	12,260				
Total Suspended Solids (mg/L)	10:58	1.3	12:23	10.8				
Total Phosphorus (mg/L)	10:58	0.066	12:23	0.097				
Total Nitrogen (mg/L)	10:58	2.05	12:23	1.79				

Notes: All samples were collected during wet weather conditions.

**Rocky Branch B (April 30, 2020 - June 3, 2020)**

PARAMETER	DESCRIPTION	CONTINUOUS WATER QUALITY PARAMETERS:	SUMMARY STATISTICS				
			MINIMUM OBSERVED	MAXIMUM OBSERVED	MEDIAN OBSERVED	MEAN OBSERVED	STANDARD DEVIATION
STREAM NAME:	Rocky Branch	STAGE (FT):	3.5	9.3	3.7	3.7	0.4
LOCATION:	Olympia Ave Crossing	TEMPERATURE (°F):	60	78	71	70	4
ADDRESS:	510 Heyward St Columbia, SC 29201	TURBIDITY (NTU):	1	220	5	10	17
COORDINATES:	33.982578, -81.035036	pH:	6.3	7.5	7.0	7.0	0.2
TMDL/IMPAIRMENT:	Fecal Coliform	SPECIFIC CONDUCTIVITY (mS/cm):	0.041	0.271	0.190	0.178	0.041
NEIGHBORING LANDUSE:	Residential and commercial	DISSOLVED OXYGEN (mg/L):	5.6	11.2	8.0	8.2	1.1
SPATIAL LOCATION:	Most Downstream Site						
TOTAL NO. STORMS OVER 0.1 INCH:	11						
MAX. DAILY RAINFALL:	3.5 inches						
TOTAL RAINFALL (FOR PERIOD):	8.9 inches						



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 B (April 30, 2020 - June 3, 2020)**

**Explanation of Statistics:**

<b>MINIMUM OBSERVED</b>	The minimum of the values recorded by the datasonde in 15 minute intervals.
<b>MAXIMUM OBSERVED</b>	The maximum of the values recorded by the datasonde in 15 minute intervals.
<b>MEDIAN OBSERVED</b>	The median of all the values recorded by the datasonde in 15 minute intervals.
<b>MEAN OBSERVED</b>	The average of all the values recorded by the datasonde in 15 minute intervals.
<b>STANDARD DEVIATION</b>	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 4	
	5/20/2020		5/20/2020					
	Time	Result	Time	Result	Time	Result	Time	Result
<i>Escherichia coli</i> (MPN/100mL)	11:17	1,626	12:41	2,900				
Total Suspended Solids (mg/L)	11:17	2.9	12:41	8.9				
Total Phosphorus (mg/L)	11:17	0.11	12:41	0.14				
Total Nitrogen (mg/L)	11:17	1.86	12:41	1.31				

Notes: All samples were collected during wet weather conditions.