

# Rocky Branch Monitoring Sites

## Monitoring Data Summary for October 30<sup>th</sup>, 2020 – December 1<sup>st</sup>, 2020

### *Data Gaps*

- At the ROCA station, a brief period of turbidity and DO data from November 28<sup>th</sup>-30<sup>th</sup> and 28<sup>th</sup>-29<sup>th</sup> respectively were removed from the dataset due to the sensor being buried, causing the turbidity and DO values to be obscured. DO data was also removed from November 12<sup>th</sup>-13<sup>th</sup> because the sensor was buried.
- At the ROCB station, there were no data gaps.

### *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 7.7 mg/L and 8.8 mg/L, respectively, which are well above the SCDHEC daily average minimum standard of 5 mg/L.
- The minimum DO concentration recorded was 5.8 mg/L at ROCA station and 6.4 mg/L at the ROCB station. Both stations were above the SCDHEC discrete minimum standard of 4 mg/L.

### *Storm Events*

- The ROCA station recorded 8 storm events during this monitoring period, resulting in 3.9 inches of total precipitation. The ROCB station recorded 7 storm events during this monitoring period, resulting in 3.5 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*

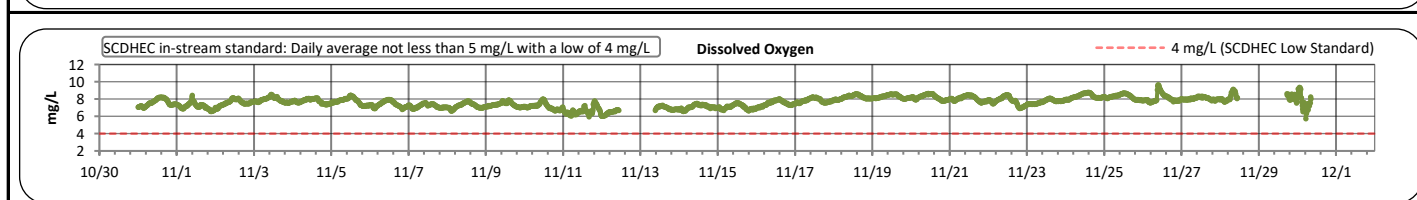
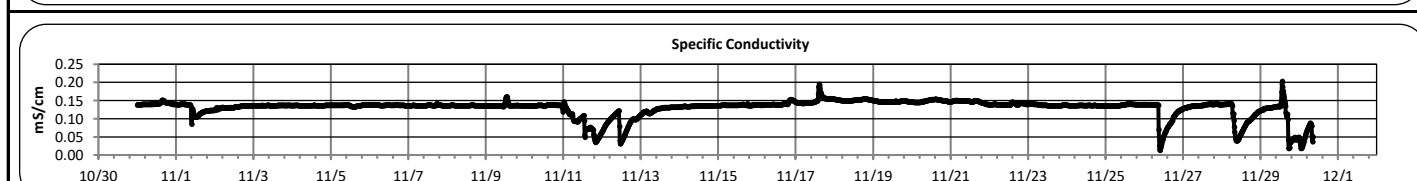
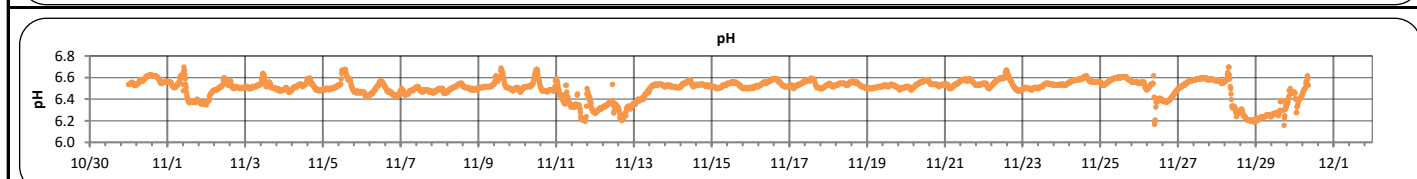
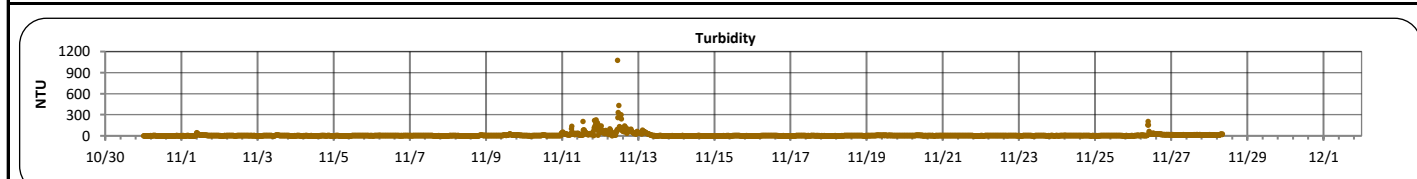
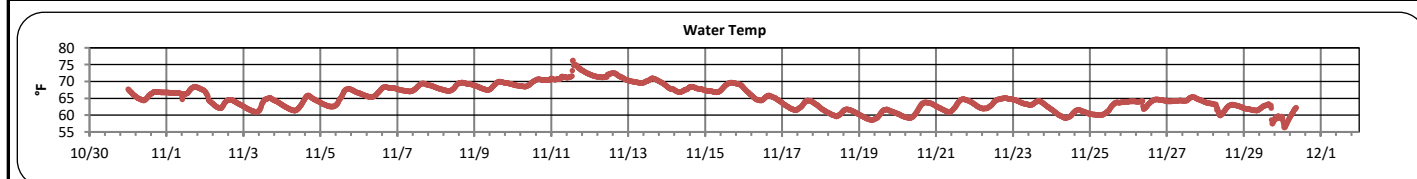
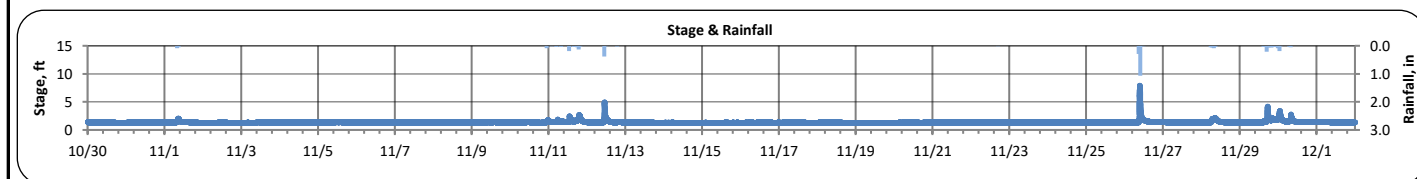
- At the ROCA station, several increased levels of specific conductivity were observed on October 31<sup>st</sup>, November 9<sup>th</sup>, November 17<sup>th</sup>, and November 29<sup>th</sup>. These elevated levels of specific conductivity were likely a result of the Maxcy Gregg pool discharge.
- At the ROCB station, specific conductivity levels were significantly elevated on November 3<sup>rd</sup>, November 5<sup>th</sup>, November 8<sup>th</sup>-9<sup>th</sup>, November 15<sup>th</sup>, November 19<sup>th</sup>, November 20<sup>th</sup> and November 25<sup>th</sup>-26<sup>th</sup>.

### *Flow Measurements*

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

Rocky Branch A (October 30, 2020 - December 1, 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	7.9	1.3	1.4	0.3
LOCATION:	Maxcy Gregg Park	TEMPERATURE (°F):	56	76	64	65	4
ADDRESS:	1650 Park Circle Columbia, SC 29201	TURBIDITY (NTU):	1	1077	4	11	32
COORDINATES:	33.995864, -81.021842	pH:	6.0	6.7	6.5	6.5	0.1
TMDL/IMPAIRMENT:	Fecal Coliform	SPECIFIC CONDUCTIVITY (mS/cm):	0.013	0.203	0.137	0.131	0.024
NEIGHBORING LANDUSE:	Residential and commercial	DISSOLVED OXYGEN (mg/L):	5.8	9.7	7.7	7.7	0.6
SPATIAL LOCATION:	Most upstream site						
TOTAL NO. STORMS OVER 0.1 INCH:	8						
MAX. DAILY RAINFALL:	1.4 inches						
TOTAL RAINFALL (FOR PERIOD):	3.9 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 A (October 30, 2020 - December 1, 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.

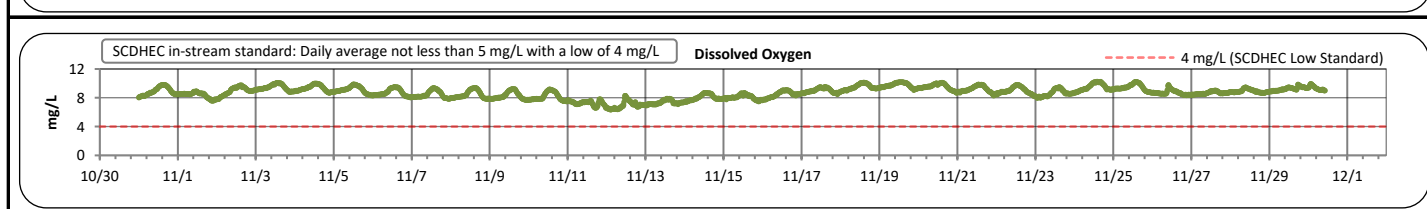
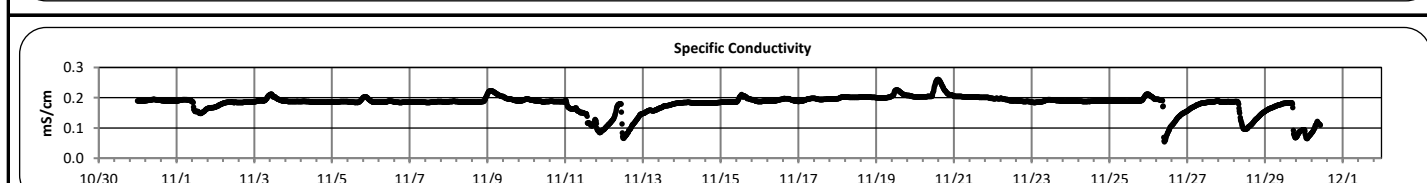
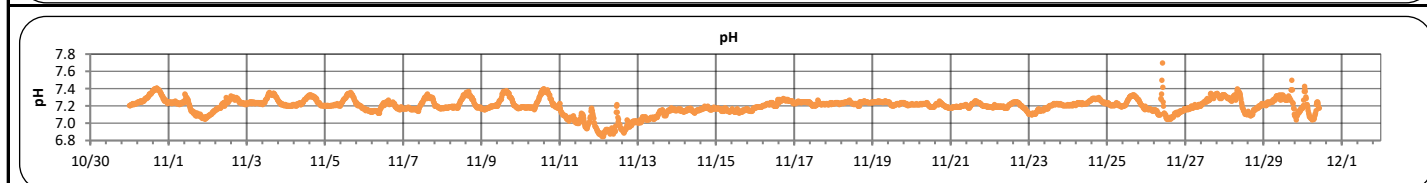
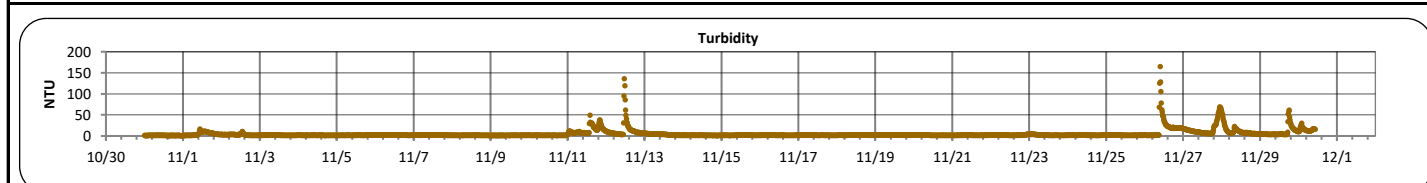
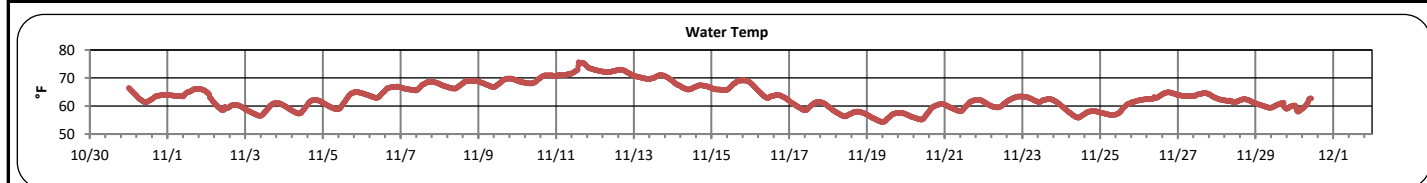
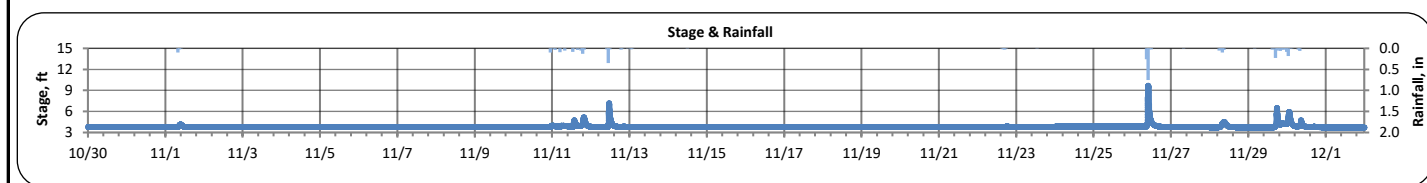
**Grab Sample Data:**

Analyte (units)	Sample 1		Sample 2		Sample 3		Sample 4	
	11/9/2020		11/12/2020		11/12/2020		11/12/2020	
	Time	Results	Time	Results	Time	Results	Time	Results
<i>Escherichia coli</i> (MPN/100mL)	10:00	194	11:02	>48,392	12:29	18,280	13:33	28,270
Total Suspended Solids (mg/L)			11:02	193	12:29	17.6	13:33	9.7
Total Phosphorus (mg/L)			11:02	0.32	12:29	0.14	13:33	0.13
Total Nitrogen (mg/L)			11:02	2.48	12:29	1.01	13:33	0.82

Notes: Sample 1 was collected during dry weather conditions. Samples 2-4 were collected during wet weather conditions.

**Rocky Branch B (October 30, 2020 - December 1, 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):	3.7	9.7	3.8	3.8	0.3
LOCATION:	Olympia Ave Crossing	TEMPERATURE (°F):	54	76	63	63	5
ADDRESS:	510 Heyward St Columbia, SC 29201	TURBIDITY (NTU):	1	165	2	5	10
COORDINATES:	33.982578, -81.035036	pH:	6.9	7.7	7.2	7.2	0.1
TMDL/IMPAIMENT:	Fecal Coliform	SPECIFIC CONDUCTIVITY (mS/cm):	0.054	0.261	0.188	0.181	0.029
NEIGHBORING LANDUSE:	Residential and commercial	DISSOLVED OXYGEN (mg/L):	6.4	10.3	8.8	8.8	0.8
SPATIAL LOCATION:	Most Downstream Site						
TOTAL NO. STORMS OVER 0.1 INCH:	7						
MAX. DAILY RAINFALL:	1.1 inches						
TOTAL RAINFALL (FOR PERIOD):	3.5 inches						



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

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Monitoring Periodic Report**

**Rocky Branch B (October 30, 2020 - December 1, 2020)**

**Explanation of Statistics:**

<b>MINIMUM OBSERVED</b>	The minimum of the values recorded by the datasonde in 15 minute intervals.
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<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	
	11/9/2020		11/12/2020		11/12/2020		11/12/2020	
	Time	Results	Time	Results	Time	Results	Time	Results
<i>Escherichia coli</i> (MPN/100mL)	10:10	646	10:45	2,592	12:10	28,270	13:45	22,400
Total Suspended Solids (mg/L)			10:45	35.2	12:10	67.5	13:45	17.4
Total Phosphorus (mg/L)			10:45	0.17	12:10	0.24	13:45	0.15
Total Nitrogen (mg/L)			10:45	1.82	12:10	1.34	13:45	0.87

Notes: Sample 1 was collected during dry weather conditions. Samples 2-4 were collected during wet weather conditions.