

Rocky Branch Monitoring Sites

Monitoring Data Summary for August 27th, 2020 – September 24th, 2020

Data Gaps

- At the ROCA station, a brief period of turbidity data from September 14th-16th, and September 16th-18th was removed from the dataset due to the sensor being buried, causing the turbidity values to be obscured.
- At the ROCB station, there were no data gaps.
- Pressure transducer stage data was not available at ROCA and ROCB from September 19th-20th.

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 7.1 mg/L and 7.6 mg/L, respectively, which are well above the SCDHEC daily average minimum standard of 5 mg/L.
- The minimum DO concentration recorded was 5.5 mg/L at ROCA station and 5.5 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 4 storm events during this monitoring period, resulting in 4.2 inches of total precipitation. The ROCB station also recorded 4 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

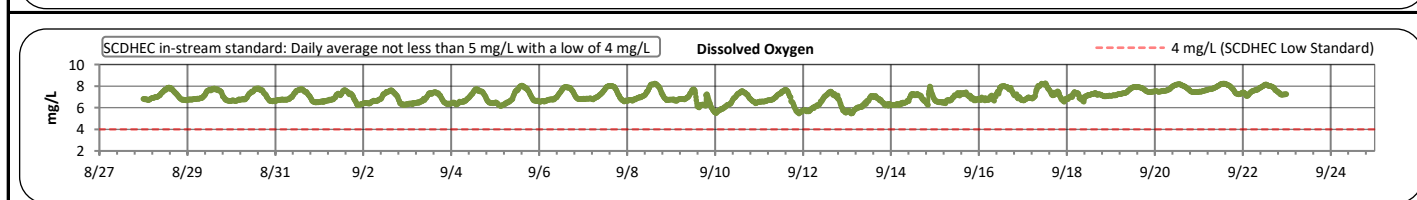
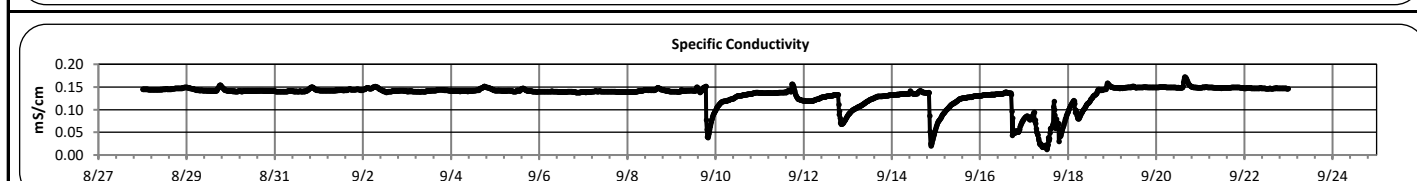
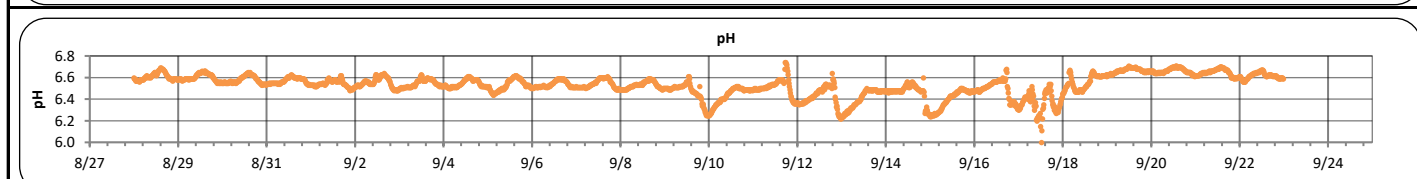
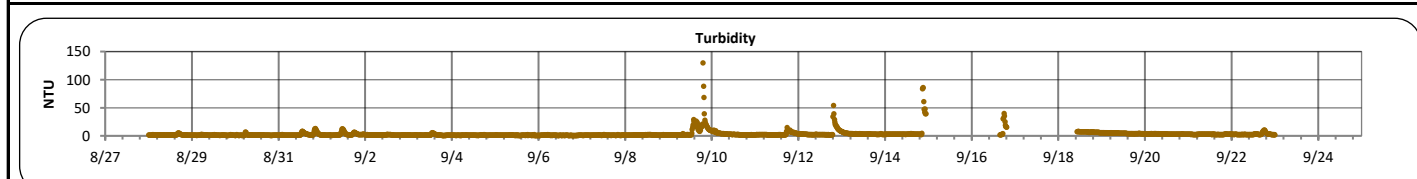
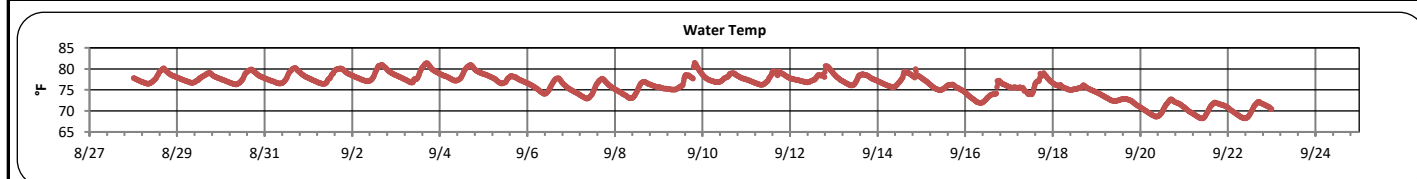
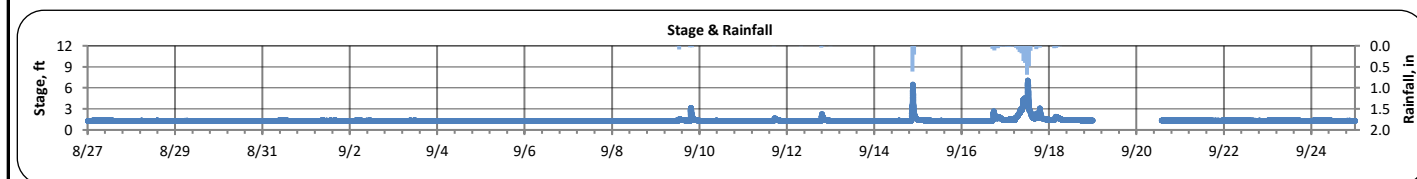
- At the ROCA station, several increased levels of specific conductivity were recorded simultaneously with increased levels of pH. These occurrences were observed on August 29th, September 11th, and September 20th. These elevated levels of specific conductivity and pH were likely a result of the Maxcy Gregg pool discharge.
- At the ROCB station, specific conductivity levels were significantly elevated on August 29th, September 1st, September 3rd, September 7th, September 11-12th, September 16th, and September 20th.

Flow Measurements

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

Rocky Branch A (August 27, 2020 - September 24, 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	7.1	1.3	1.4	0.3
LOCATION:	Maxcy Gregg Park	TEMPERATURE (°F):	68	81	77	76	3
ADDRESS:	1650 Park Circle Columbia, SC 29201	TURBIDITY (NTU):	1	130	2	3	6
COORDINATES:	33.995864, -81.021842	pH:	6.0	6.7	6.5	6.5	0.1
TMDL/IMPAIRMENT:	Fecal Coliform	SPECIFIC CONDUCTIVITY (mS/cm):	0.012	0.172	0.141	0.133	0.024
NEIGHBORING LANDUSE:	Residential and commercial	DISSOLVED OXYGEN (mg/L):	5.5	8.3	7.0	7.1	0.6
SPATIAL LOCATION:	Most upstream site						
TOTAL NO. STORMS OVER 0.1 INCH:	4						
MAX. DAILY RAINFALL:	2.7 inches						
TOTAL RAINFALL (FOR PERIOD):	4.2 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 (August 27, 2020 - September 24, 2020)

Explanation of Statistics:

MINIMUM OBSERVED	The minimum of the values recorded by the datasonde in 15 minute intervals.
MAXIMUM 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 DEVIATION	The standard deviation of all the values recorded by the datasonde in 15 minute intervals.

Grab Sample Data:

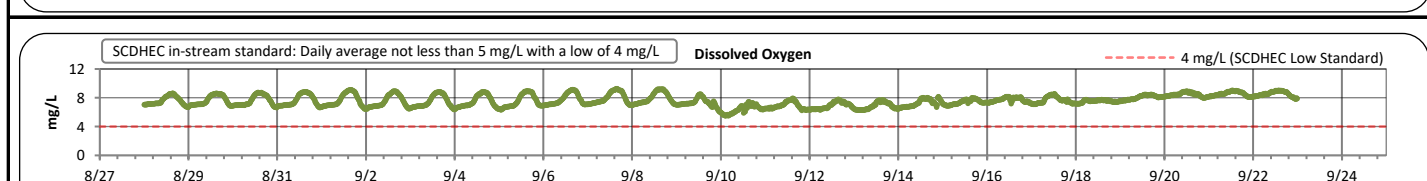
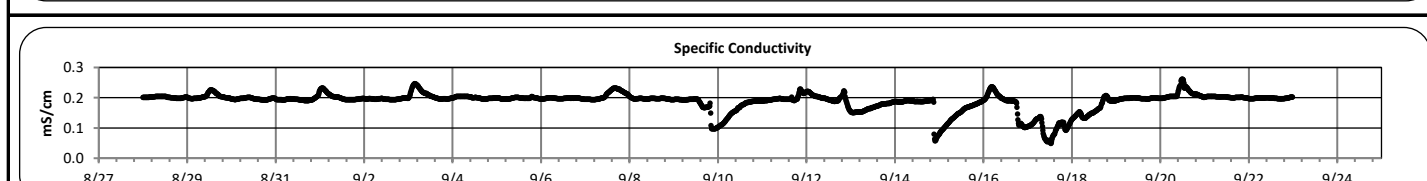
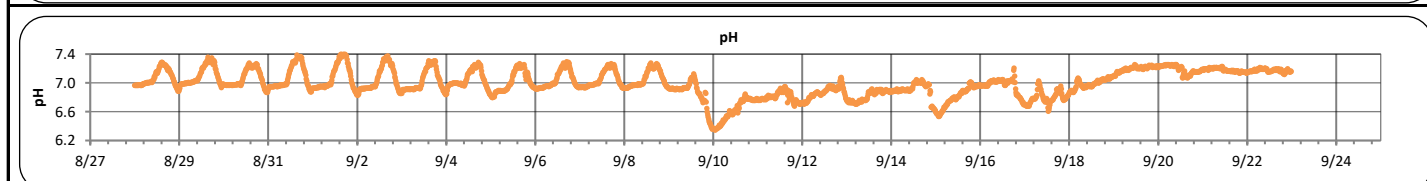
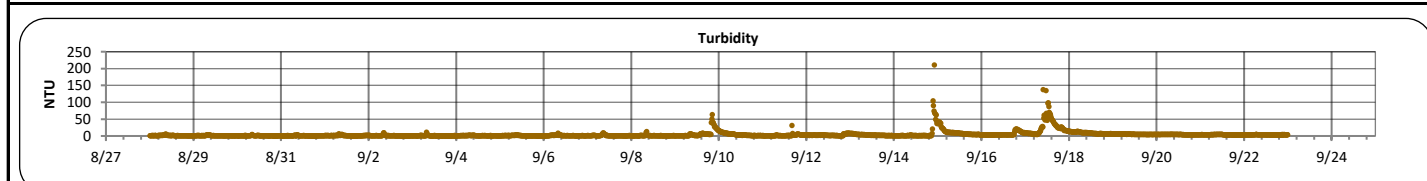
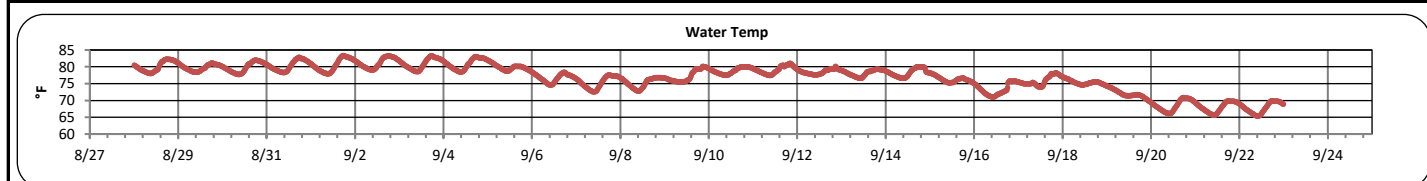
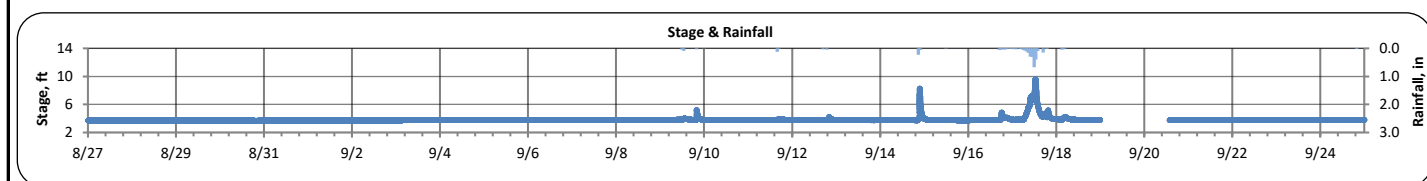
Analyte (units)	Sample 1		Sample 2		Sample 3		Sample 4	
	8/31/2020		9/17/2020		9/17/2020		9/17/2020	
	Time	Results	Time	Results	Time	Results	Time	Results
<i>Escherichia coli</i> (MPN/100mL)	14:10	1,204	9:00	20,920	10:02	2,988	11:35	8,212
Total Suspended Solids (mg/L)			9:00	27	10:02	53.2	11:35	35.7
Total Phosphorus (mg/L)			9:00	0.10	10:02	0.13	11:35	0.079
Total Nitrogen (mg/L)			9:00	0.73	10:02	1.37	11:35	0.83

Analyte (units)	Sample 5		Sample 6		Sample 7		Sample 8	
	9/17/2020		9/17/2020					
	Time	Results	Time	Results	Time	Results	Time	Results
<i>Escherichia coli</i> (MPN/100mL)	12:44	10,950	13:45	8,704				
Total Suspended Solids (mg/L)	12:44	31.2	13:45	29.3				
Total Phosphorus (mg/L)	12:44	0.081	13:45	0.081				
Total Nitrogen (mg/L)	12:44	0.49	13:45	0.83				

Notes: Sample 1 was taken during dry weather conditions. Samples 2-6 were taken during wet weather conditions.

Rocky Branch B (August 27, 2020 - September 24, 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	0.4
LOCATION:	Olympia Ave Crossing	TEMPERATURE (°F):	65	83	78	77	4
ADDRESS:	510 Heyward St Columbia, SC 29201	TURBIDITY (NTU):	1	211	2	5	10
COORDINATES:	33.982578, -81.035036	pH:	6.4	7.4	7.0	7.0	0.2
TMDL/IMPAIRMENT:	Fecal Coliform	SPECIFIC CONDUCTIVITY (mS/cm):	0.049	0.262	0.197	0.188	0.031
NEIGHBORING LANDUSE:	Residential and commercial	DISSOLVED OXYGEN (mg/L):	5.5	9.3	7.5	7.6	0.8
SPATIAL LOCATION:	Most Downstream Site						
TOTAL NO. STORMS OVER 0.1 INCH:	4						
MAX. DAILY RAINFALL:	2.4 inches						
TOTAL RAINFALL (FOR PERIOD):	3.5 inches						



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**Continuous Water Quality
Monitoring Periodic Report**

Rocky Branch B (August 27, 2020 - September 24, 2020)

Explanation of Statistics:

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STANDARD 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 4	
	8/31/2020		9/17/2020		9/17/2020		9/17/2020	
	Time	Results	Time	Results	Time	Results	Time	Results
<i>Escherichia coli</i> (MPN/100mL)	14:23	432	9:15	5,506	10:13	15,830	11:46	8,704
Total Suspended Solids (mg/L)			9:15	32.8	10:13	75.1	11:46	35.8
Total Phosphorus (mg/L)			9:15	0.12	10:13	0.18	11:46	0.18
Total Nitrogen (mg/L)			9:15	0.73	10:13	0.97	11:46	3.63

Analyte (units)	Sample 5		Sample 6		Sample 7		Sample 8	
	9/17/2020		9/17/2020					
	Time	Results	Time	Results	Time	Results	Time	Results
<i>Escherichia coli</i> (MPN/100mL)	12:56	12,260	14:12	7,308				
Total Suspended Solids (mg/L)	12:56	88.3	14:12	37.1				
Total Phosphorus (mg/L)	12:56	0.17	14:12	0.11				
Total Nitrogen (mg/L)	12:56	6.5	14:12	0.65				

Notes: Sample 1 was taken during dry weather conditions. Samples 2-6 were taken during wet weather conditions.