

Rocky Branch Monitoring Sites

Monitoring Data Summary for August 19th, 2017 – September 18th, 2017

Data Gaps

- The ROCA station experienced noisy and elevated turbidity levels from September 9th – 12th, because of debris blocking the turbidity sensor. This period was removed from the dataset.
- The ROCB station did not record any interruptions in the dataset during this monitoring period.

SCDHEC Standards

- The ROCA and ROCB stations did not record any pH readings 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 7.7 mg/L, respectively, which are well above the SCDHEC daily average minimum standard of 5 mg/L.
- Both minimum concentrations were well above the SCDHEC discrete minimum standard of 4 mg/L. The minimum DO concentration recorded at the ROCA station was 4.5 mg/L and 6.1 mg/L at the ROCB station.

Storm Events

- The ROCA station recorded three storm events during this monitoring period, resulting in 4.3 inches of precipitation, and the ROCB station recorded two storms, resulting in 3.8 inches of precipitation.
- Both ROCA and ROCB stations exhibited typical responses to storm events during this monitoring period.
- The rain event from September 11th – 12th were related to impacts from Hurricane Irma.
- The maximum antecedent dry time since the last significant precipitation event (at least 0.1 inches) was approximately 20 days at both stations prior to the storm event on September 6th.

Potential Illicit Discharges and Abnormal Events

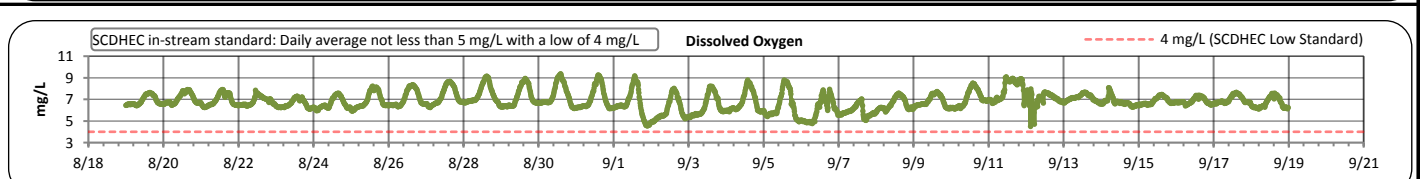
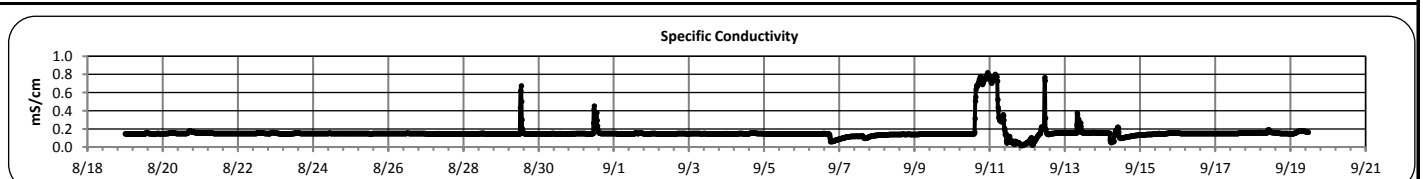
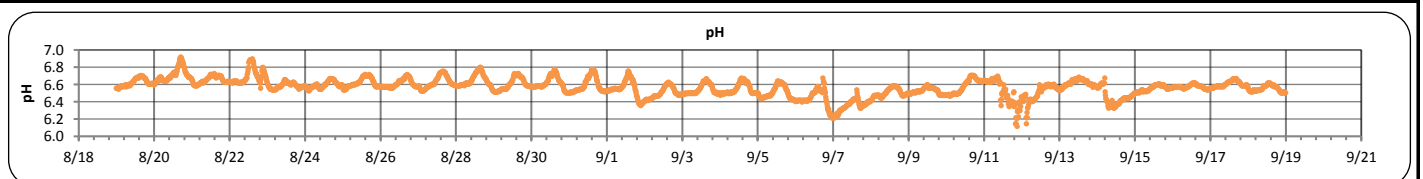
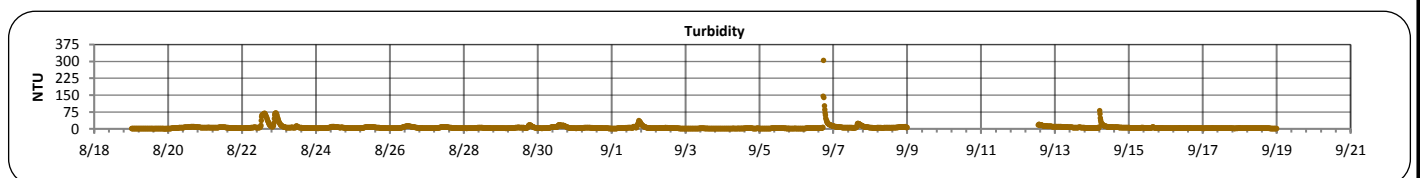
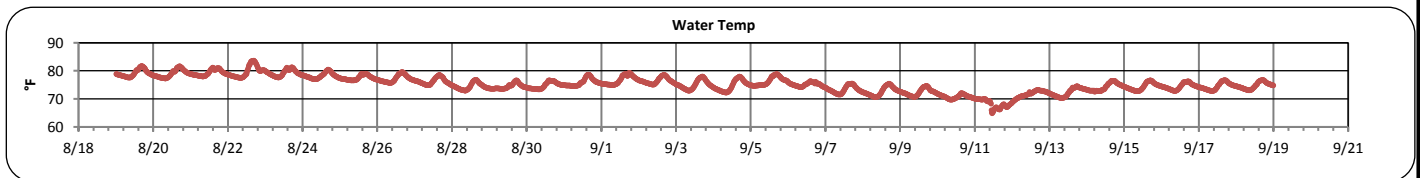
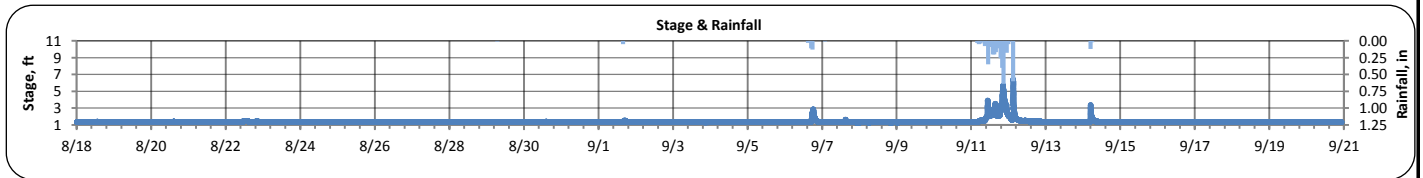
- At ROCA, several abnormal trends were noted during this monitoring period:
 - Slightly elevated specific conductivity levels that took place on: August 19th, 20th, 29th, 31st, September 1st, 10th-11th, 13th, 18th, and 19th. All of the specific conductivity spikes during this deployment period are likely related to Maxcy Gregg pool.
- At ROCB, several slightly elevated specific conductivity levels that took place on: August 18th-19th, 19th-20th, 20th, 22nd-23rd, 24th-25th, 26th, 27th-28th, 29th-30th, 30th-1st, 3rd-4th, 5th, 9th-10th, 11th, 12th, 16th, 16th-17th, and 19th. Most of these elevated periods occurred over night.

Flow Measurements

- No flow measurements were taken in this watershed during this monitoring period.

Rocky Branch A (August 18, 2017 -- September 20, 2017)

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	6.4	1.3	1.4	0.3
LOCATION:	Maxcy Gregg Park	TEMPERATURE (°F):	65	84	75	75	3
ADDRESS:	1650 Park Circle Columbia, SC 29201	TURBIDITY (NTU):	1	305	4	6	11
COORDINATES:	34.995864, -81.021842	pH:	6.1	6.9	6.6	6.6	0.1
TMDL/IMPAIRMENT:	Fecal Coliform	SPECIFIC CONDUCTIVITY (mS/cm):	0.017	0.82	0.148	0.158	0.089
NEIGHBORING LANDUSE:	Residential and commercial	DISSOLVED OXYGEN (mg/L):	4.5	9.4	6.8	6.9	0.8
SPATIAL LOCATION:	Most upstream site						
TOTAL NO. STORMS OVER 0.1 INCH:	3						
MAX. DAILY RAINFALL:	3.3 inches						
TOTAL RAINFALL (FOR PERIOD):	4.3 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 18, 2017 -- September 20, 2017)

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.

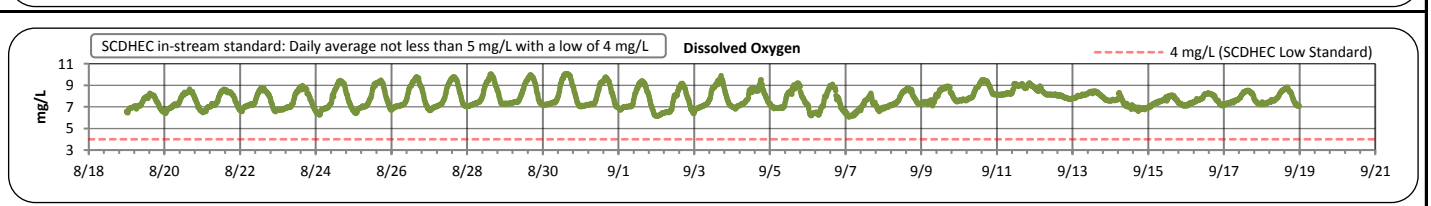
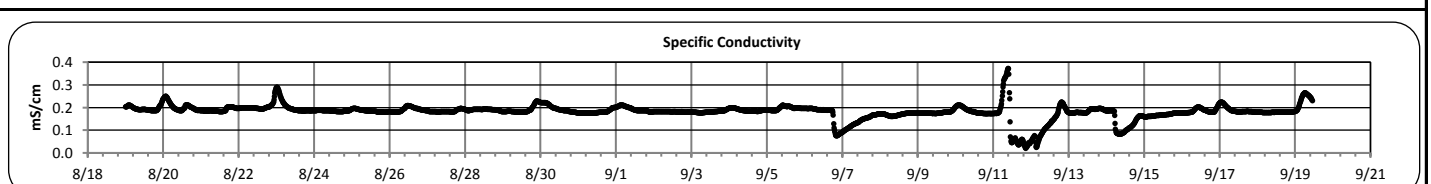
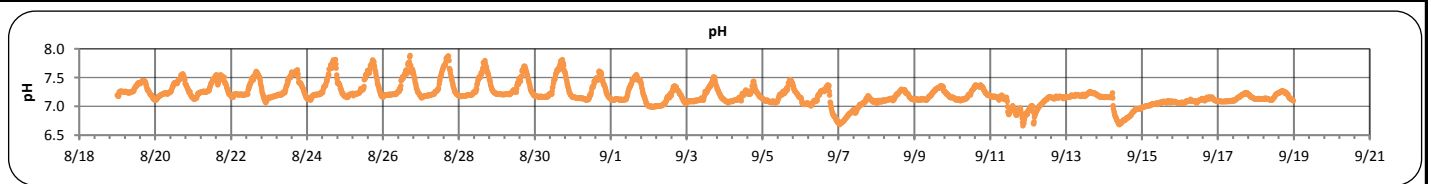
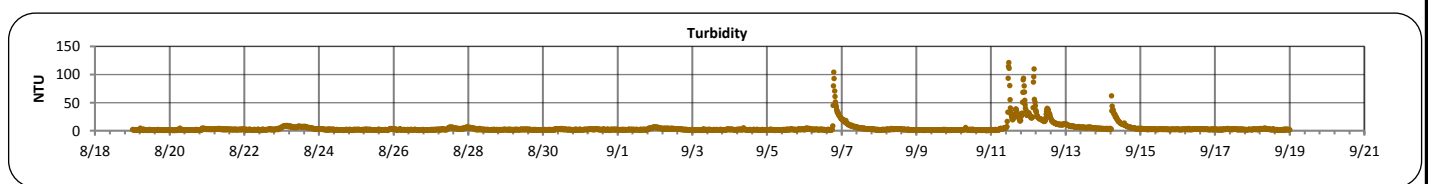
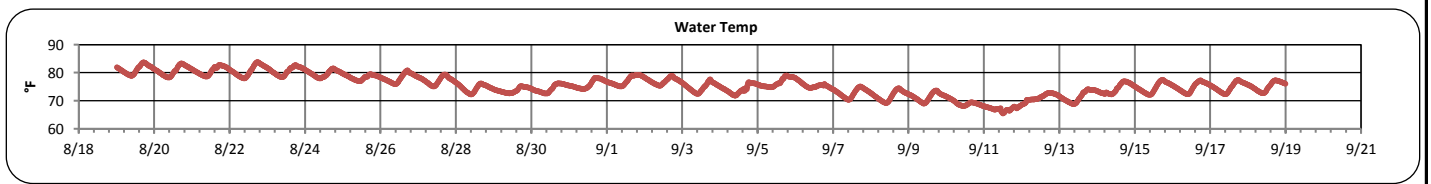
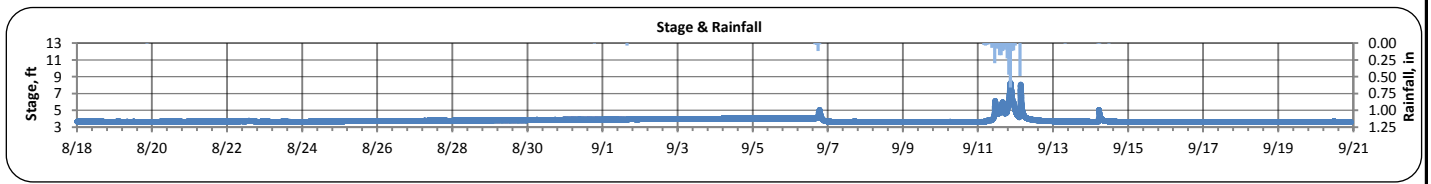
Grab Sample Data:

Analyte (units)	Sample 1		Sample 2		Sample 3		Sample 4	
	9/6/2017							
	Time	Result	Time	Result	Time	Result	Time	Result
<i>Escherichia coli</i> (MPN/100mL)	12:27	374						
Total Suspended Solids (mg/L)								
Total Phosphorus (mg/L)								
Total Nitrogen (mg/L)								

Note: The sample collected on 9/6/2017 was collected during dry weather conditions.

Rocky Branch B (August 18, 2017 -- September 20, 2017)

PARAMETER	DESCRIPTION	CONTINUOUS WATER QUALITY PARAMETERS:	SUMMARY STATISTICS				
			MINIMUM OBSERVED	MAXIMUM OBSERVED	MEDIAN OBSERVED	MEAN OBSERVED	STANDARD DEVIATION
STREAM NAME:	Rocky Branch	STAGE (FT):	3.6	8.3	3.7	3.8	0.3
LOCATION:	Olympia Ave Crossing	TEMPERATURE (°F):	65	84	76	76	4
ADDRESS:	510 Heyward St Columbia, SC 29201	TURBIDITY (NTU):	1	122	2	5	9
COORDINATES:	33.982578, -81.035036	pH:	6.7	7.9	7.2	7.2	0.2
TMDL/IMPAIRMENT:	Fecal Coliform	SPECIFIC CONDUCTIVITY (mS/cm):	0.02	0.373	0.184	0.182	0.034
NEIGHBORING LANDUSE:	Residential and commercial	DISSOLVED OXYGEN (mg/L):	6.1	10.1	7.7	7.8	0.8
SPATIAL LOCATION:	Most Downstream Site						
TOTAL NO. STORMS OVER 0.1 INCH:	2						
MAX. DAILY RAINFALL:	3.0 inches						
TOTAL RAINFALL (FOR PERIOD):	3.8 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 B (August 18, 2017 -- September 20, 2017)

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.

Sampled Data:

Analyte (units)	Sample 1		Sample 2		Sample 3		Sample 4	
	9/6/2017							
	Time	Result	Time	Result	Time	Result	Time	Result
<i>Escherichia coli</i> (MPN/100mL)	12:39	486						
Total Suspended Solids (mg/L)								
Total Phosphorus (mg/L)								
Total Nitrogen (mg/L)								

Note: The sample collected on 9/6/2017 was collected during dry weather conditions.