

Rocky Branch Monitoring Sites

Monitoring Data Summary for February 15th, 2019 – March 19th, 2019

Data Gaps

- At the ROCA station, a brief period of fouling turbidity data, occurring March 10th-11th, was removed from the dataset.
- Heavy sediment accumulation at the ROCA station covered the turbidity sensor, creating inaccurate NTU readings beginning on March 14th. This was addressed on March 18th during a field visit by Woolpert personnel and this period was removed from the dataset.
- No interruptions were observed in the water quality data at the ROCB station during this monitoring period.
- The website experienced reporting issues with the pressure transducers at ROCA and ROCB from March 15th-16th, therefore there is no data record during that period.

SCDHEC Standards

- Both the ROCA and ROCB stations recorded pH values that were within the acceptable SCDHEC range of 6 to 8.5 during this monitoring period.
- The ROCA and ROCB stations recorded average DO concentrations of 8.7 mg/L and 9.4 mg/L, respectively, which are both above the SCDHEC daily average minimum standard of 5 mg/L.
- The minimum DO concentration recorded during this deployment period was 5.7 mg/L at ROCA and 7.4 mg/L at ROCB. Neither of the Rocky Branch monitoring stations recorded DO values below the SCDHEC discrete minimum standard of 4 mg/L.

Storm Events

- The ROCA station recorded 9 storm events during this monitoring period, resulting in 4.2 inches of total precipitation. The ROCB station also recorded 9 storm events during this monitoring period, resulting in 3.7 inches of total precipitation.
- Both ROCA and ROCB stations exhibited typical responses to storm events during this monitoring period.
- The maximum antecedent dry time since the last significant precipitation event (at least 0.1 inches) was approximately 10.7 days in the Rocky Branch watershed occurring after the March 9th until the end of the deployment period.

Potential Illicit Discharges and Abnormal Events

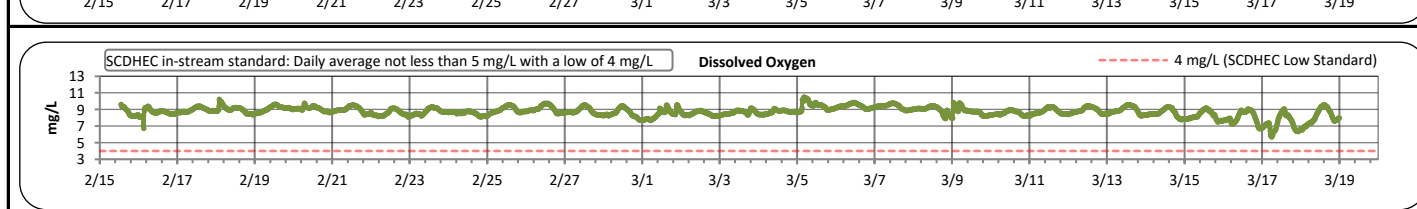
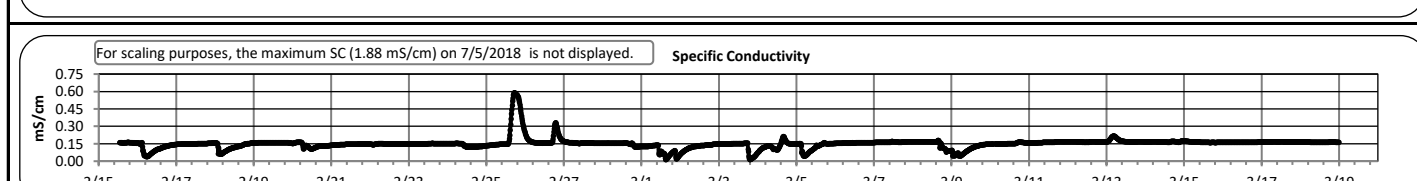
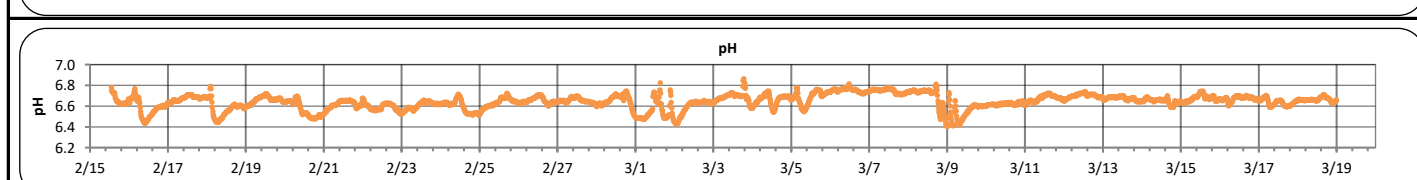
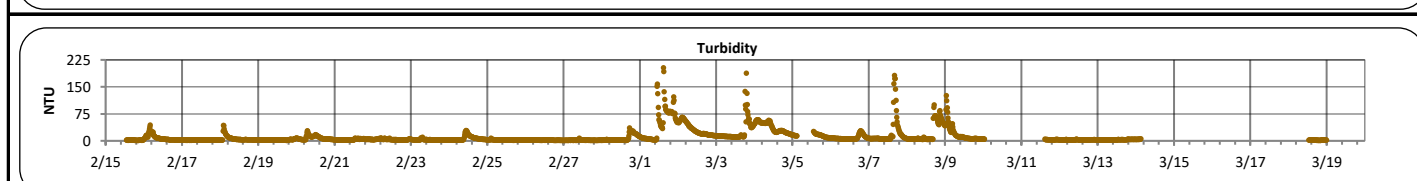
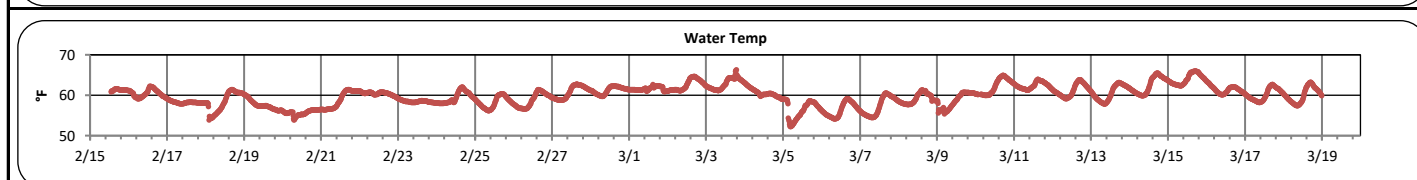
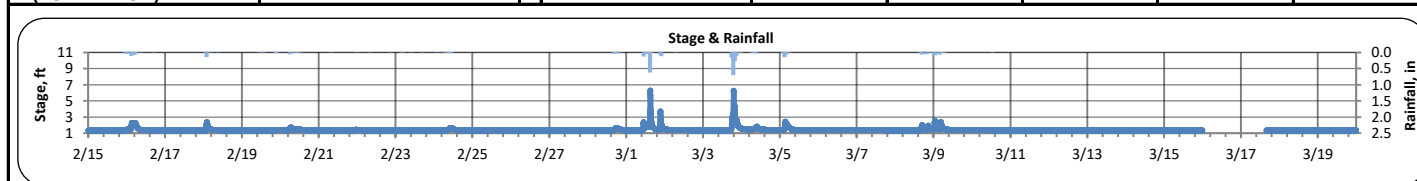
- Several elevated specific conductivity levels occurred at both Rocky Branch monitoring stations.
 - At ROCA, these specific conductivity spikes took place on: February 25th, 26th, March 4th, 10th, 13th, 14th, and 14th-15th.
 - At ROCB, these specific conductivity spikes took place on: February 17th, 21st, 23rd, 24th-25th, 26th, 27th, March 2nd, 4th, 7th-8th, 8th, 12th, 13th, 14th, and 18th.

Flow Measurements

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

Rocky Branch A (February 15, 2019 -- March 19, 2019)

PARAMETER	DESCRIPTION	CONTINUOUS WATER QUALITY PARAMETERS:	SUMMARY STATISTICS				
			MINIMUM OBSERVED	MAXIMUM OBSERVED	MEDIAN OBSERVED	MEAN OBSERVED	STANDARD DEVIATION
STREAM NAME:	Rocky Branch	STAGE (FT):	1.4	6.3	1.4	1.4	0.2
LOCATION:	Maxcy Gregg Park	TEMPERATURE (°F):	52	66	60	60	3
ADDRESS:	1650 Park Circle Columbia, SC 29201	TURBIDITY (NTU):	1	204	4	12	21
COORDINATES:	33.995864, -81.021842	pH:	6.4	6.9	6.7	6.6	0.1
TMDL/IMPAIRMENT:	Fecal Coliform	SPECIFIC CONDUCTIVITY (mS/cm):	0.014	0.59	0.156	0.152	0.048
NEIGHBORING LANDUSE:	Residential and commercial	DISSOLVED OXYGEN (mg/L):	5.7	10.5	8.8	8.7	0.6
SPATIAL LOCATION:	Most upstream site						
TOTAL NO. STORMS OVER 0.1 INCH:	9						
MAX. DAILY RAINFALL:	1.3 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 (February 15, 2019 -- March 19, 2019)

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.

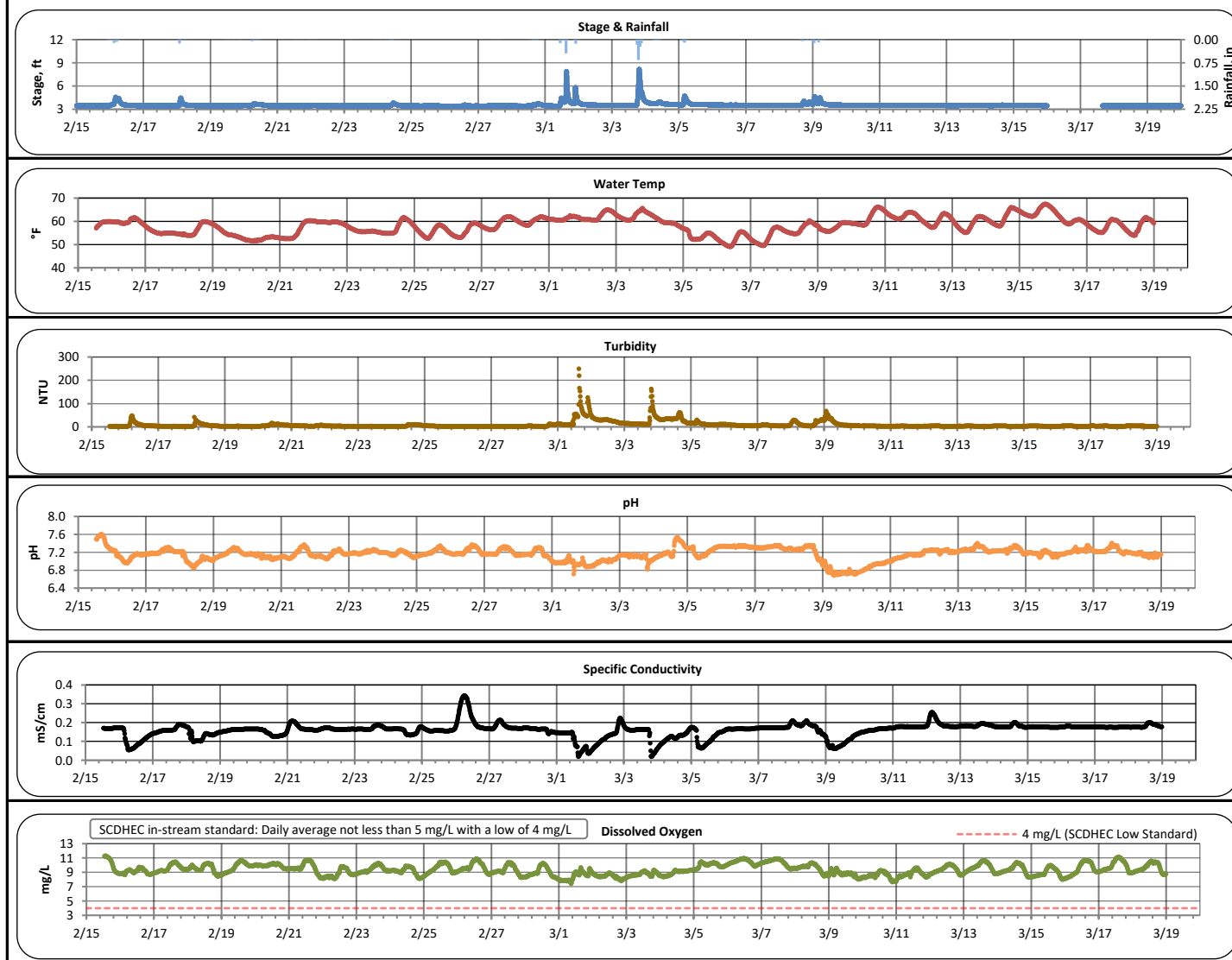
Grab Sample Data:

Analyte (units)	Sample 1		Sample 2		Sample 3		Sample 4	
	3/1/2019		3/1/2019					
	Time	Result	Time	Result	Time	Result	Time	Result
<i>Escherichia coli</i> (MPN/100mL)	10:59	31060	11:33	25990				
Total Suspended Solids (mg/L)	10:59	269	11:33	118				
Total Phosphorus (mg/L)	10:59	0.47	11:33	0.29				
Total Nitrogen (mg/L)	10:59	3.35	11:33	2.36				

Note: Both samples collected were collected during dry weather conditions.

Rocky Branch B (February 15, 2019 -- March 19, 2019)

PARAMETER	DESCRIPTION	CONTINUOUS WATER QUALITY PARAMETERS:	SUMMARY STATISTICS				
			MINIMUM OBSERVED	MAXIMUM OBSERVED	MEDIAN OBSERVED	MEAN OBSERVED	STANDARD DEVIATION
STREAM NAME:	Rocky Branch	STAGE (FT):	3.4	8.2	3.5	3.6	0.3
LOCATION:	Olympia Ave Crossing	TEMPERATURE (°F):	49	68	59	58	4
ADDRESS:	510 Heyward St Columbia, SC 29201	TURBIDITY (NTU):	2	250	4	9	15
COORDINATES:	33.982578, -81.035036	pH:	6.7	7.6	7.2	7.2	0.1
TMDL/IMPAIRMENT:	Fecal Coliform	SPECIFIC CONDUCTIVITY (mS/cm):	0.02	0.344	0.168	0.160	0.038
NEIGHBORING LANDUSE:	Residential and commercial	DISSOLVED OXYGEN (mg/L):	7.4	11.3	9.3	9.4	0.8
SPATIAL LOCATION:	Most Downstream Site						
TOTAL NO. STORMS OVER 0.1 INCH:	9						
MAX. DAILY RAINFALL:	1.2 inches						
TOTAL RAINFALL (FOR PERIOD):	3.7 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 (February 15, 2019 -- March 19, 2019)

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	
	3/1/2019		3/1/2019					
	Time	Result	Time	Result	Time	Result	Time	Result
<i>Escherichia coli</i> (MPN/100mL)	11:15	3446	12:00	4978				
Total Suspended Solids (mg/L)	11:15	40.4	12:00	92.4				
Total Phosphorus (mg/L)	11:15	0.2	12:00	0.22				
Total Nitrogen (mg/L)	11:15	3.85	12:00	2.78				

Note: Both samples collected were collected during dry weather conditions.