Rocky Branch Monitoring Sites
Monitoring Data Summary for
January 17th, 2020 – February 19th, 2020

Data Gaps

- At the ROCA station, heavy sediment accumulated around the turbidity sensor causing invalid NTU readings from January 21st-24th and January 28th-30th. These two periods of turbidity data were removed from the dataset.
- At the ROCA station, the turbidity sensor became buried during a storm event on February 17th. The sensor remained buried until the end of the deployment period on February 18th when the sonde was removed from the field for calibrations. This portion of turbidity data 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 CS451 pressure transducers at the ROCA and ROCB stations from January 18th-20th, therefore no CS451 stage data was recorded during that time.

SCDHEC Standards

- The Rocky Branch monitoring 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 9.1 mg/L and 10 mg/L, respectively, which are well above the SCDHEC daily average minimum standard of 5 mg/L.
- The minimum DO concentration recorded was 8.1 mg/L at ROCA station and 7.7 mg/L at the ROCB station, which are both 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 6.2 inches of total precipitation. The ROCB station also recorded 7 storm events during this monitoring period, resulting in 5.8 inches of total precipitation.
- Both ROCA and ROCB stations exhibited typical responses to storm events during this monitoring period.
- The DO at the ROCA station increased during the storm event on January 31st-February 1st, likely a result of the decrease in temperature that was also observed during the same time.
- The maximum antecedent dry time since the last significant precipitation event (at least 0.1 inches) was approximately 6.5 days in the Rocky Branch watershed occurring prior to the February 13th storm event.

Potential Illicit Discharges and Abnormal Events

- The ROCB stage significantly increased on February 8th and remained elevated until February 10th when it returned to normal baseflow conditions. No rain was recorded during this time.
- Several periods of increased specific conductivity levels were observed at the ROCB station. These observations occurred on January 19th-20th, 24th, 27th, 29th, 30th-31st, and February 2nd-3rd, 10th, and 11th.

Flow Measurements

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

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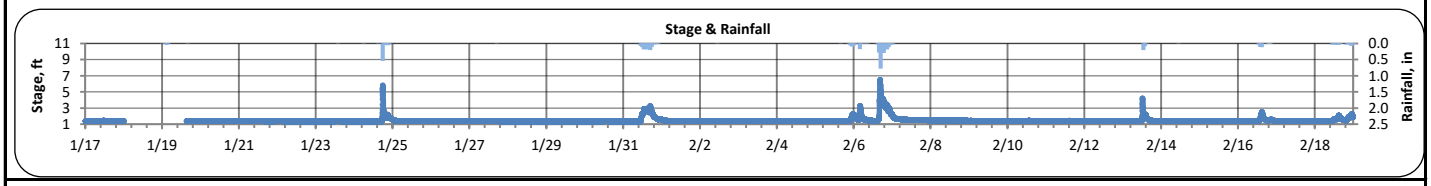
Continuous Water Quality Monitoring Periodic Report

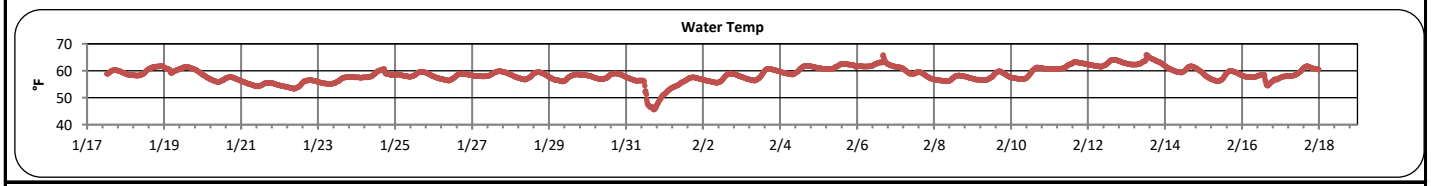
WOOLPERT

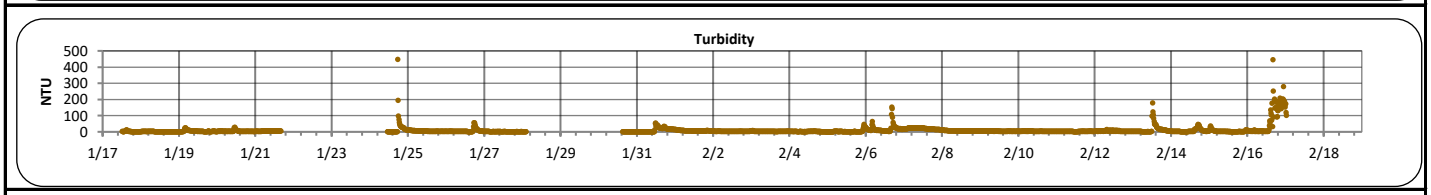
Rocky Branch A (January 17, 2020 - February 19, 2020)

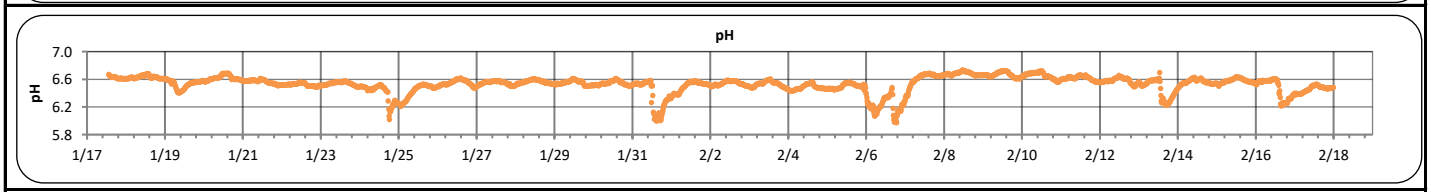
PARAMETER	DESCRIPTION
STREAM NAME:	Rocky Branch
LOCATION:	Maxcy Gregg Park
ADDRESS:	1650 Park Circle Columbia, SC 29201
COORDINATES:	33.995864, -81.021842
TMDL/IMPAIRMENT:	Fecal Coliform
NEIGHBORING LANDUSE:	Residential and commercial
SPATIAL LOCATION:	Most upstream site
TOTAL NO. STORMS OVER 0.1 INCH:	8
MAX. DAILY RAINFALL:	2.5 inches
TOTAL RAINFALL (FOR PERIOD):	6.2 inches

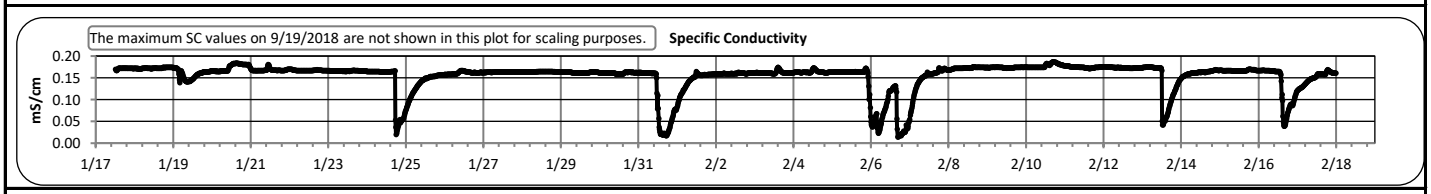
CONTINUOUS WATER QUALITY PARAMETERS:	SUMMARY STATISTICS				
	MINIMUM OBSERVED	MAXIMUM OBSERVED	MEDIAN OBSERVED	MEAN OBSERVED	STANDARD DEVIATION
STAGE (FT):	1.4	6.5	1.4	1.5	0.3
TEMPERATURE (°F):	46	66	58	59	3
TURBIDITY (NTU):	1	448	4	10	27
pH:	6.0	6.7	6.6	6.5	0.1
SPECIFIC CONDUCTIVITY (mS/cm):	0.014	0.19	0.164	0.155	0.032
DISSOLVED OXYGEN (mg/L):	8.1	11.9	9.1	9.1	0.4

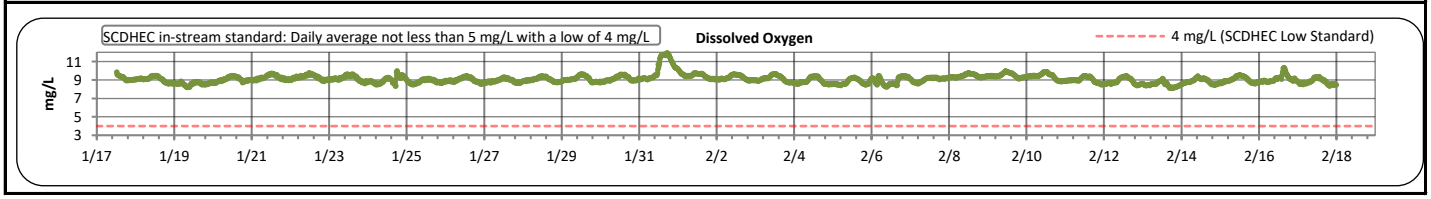












Note: Data gaps appear when the sonde is removed for calibration or when the flow depth is below the sensors

REPORT GENERATED ON 04/24/2020

Continuous Water Quality
Monitoring Periodic Report

Rocky Branch A (January 17, 2020 - February 19, 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	
	2/5/2020		2/6/2020		2/6/2020		2/6/2020	
	Time	Result	Time	Result	Time	Result	Time	Result
Escherichia coli (MPN/100mL)	9:12	242	13:50	270	11:25	1182	15:47	4962
Total Suspended Solids (mg/L)			13:50	ND	11:25	2	15:47	31.7
Total Phosphorus (mg/L)			13:50	0.049	11:25	0.048	15:47	0.13
Total Nitrogen (mg/L)			13:50	1.74	11:25	1.63	15:47	2.16

Note: Sample 1 was collected during dry weather conditions. Samples 2, 3, and 4 were collected during wet weather conditions.

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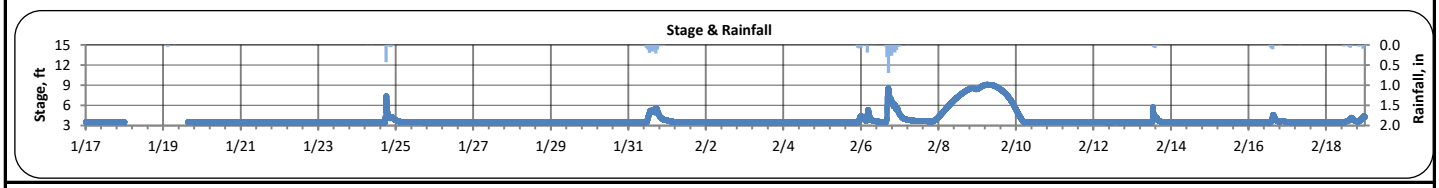
Continuous Water Quality Monitoring Periodic Report

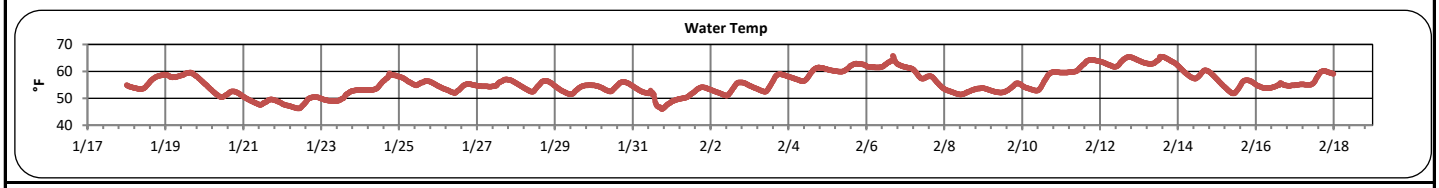
WOOLPERT

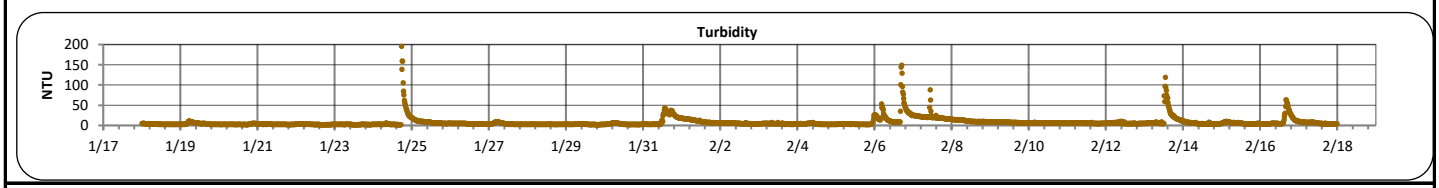
Rocky Branch B (January 17, 2020 - February 19, 2020)

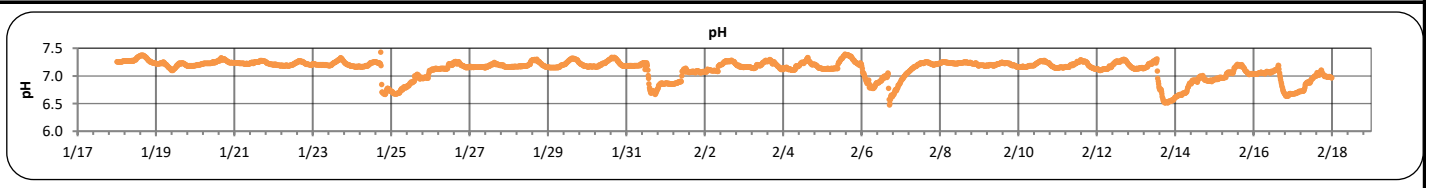
PARAMETER	DESCRIPTION
STREAM NAME:	Rocky Branch
LOCATION:	Olympia Ave Crossing
ADDRESS:	510 Heyward St Columbia, SC 29201
COORDINATES:	33.982578, -81.035036
TMDL/IMPAIRMENT:	Fecal Coliform
NEIGHBORING LANDUSE:	Residential and commercial
SPATIAL LOCATION:	Most Downstream Site
TOTAL NO. STORMS OVER 0.1 INCH:	7
MAX. DAILY RAINFALL:	2.4 inches
TOTAL RAINFALL (FOR PERIOD):	5.8 inches

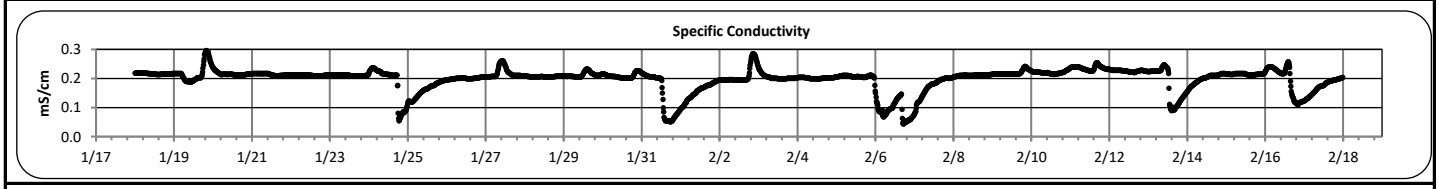
CONTINUOUS WATER QUALITY PARAMETERS:	SUMMARY STATISTICS				
	MINIMUM OBSERVED	MAXIMUM OBSERVED	MEDIAN OBSERVED	MEAN OBSERVED	STANDARD DEVIATION
STAGE (FT):	3.5	9.1	3.5	3.9	1.1
TEMPERATURE (°F):	46	66	55	56	4
TURBIDITY (NTU):	2	196	5	8	12
pH:	6.5	7.4	7.2	7.1	0.2
SPECIFIC CONDUCTIVITY (mS/cm):	0.044	0.297	0.21	0.198	0.040
DISSOLVED OXYGEN (mg/L):	7.7	12.0	10.1	10.0	0.8

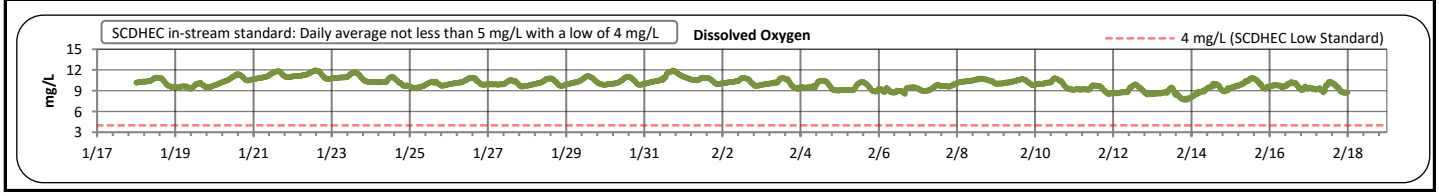












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Continuous Water Quality
Monitoring Periodic Report

Rocky Branch B (January 17, 2020 - February 19, 2020)

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Sampled Data:

Analyte (units)	Sample 1		Sample 2		Sample 3		Sample 4	
	2/5/2020		2/6/2020		2/6/2020		2/6/2020	
	Time	Result	Time	Result	Time	Result	Time	Result
Escherichia coli (MPN/100mL)	9:28	426	10:40	1498	13:05	992	15:08	786
Total Suspended Solids (mg/L)			10:40	8.6	13:05	2.7	15:08	2.6
Total Phosphorus (mg/L)			10:40	0.058	13:05	0.069	13:05	0.062
Total Nitrogen (mg/L)			10:40	1.37	13:05	1.31	13:05	1.52

Note: Sample 1 was collected during dry weather conditions. Samples 2, 3, and 4 were collected during wet weather conditions.