Rocky Branch Monitoring Sites
Monitoring Data Summary for
December 2nd, 2020 – January 5th, 2021

Data Gaps

- At the ROCA station, a period of turbidity data from January 1st-5th was removed from the dataset due to the sensor being buried, causing the turbidity values to be obscured. DO data was removed from December 31st-January 5th, because the sensor was buried. Stage data from the pressure transducer was not available from December 11th-21st.
- At the ROCB station, a brief period of turbidity data from December 18th-22nd was removed from the dataset due to the sensor being buried, causing the turbidity values to be obscured.

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 8.5 mg/L and 9.9 mg/L, respectively, which are well above the SCDHEC daily average minimum standard of 5 mg/L.
- The minimum DO concentration recorded was 4.6 mg/L at ROCA station and 8.1 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 7 storm events during this monitoring period, resulting in 5.2 inches of total precipitation. The ROCB station recorded 10 storm events during this monitoring period, resulting in 6.2 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 December 2nd, January 2nd, and January 3rd. 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 December 3rd, December 16th, December 29th, and January 4th-5th.

Flow Measurements

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

City of Columbia, SC Stormwater Management
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Continuous Water Quality Monitoring Periodic Report

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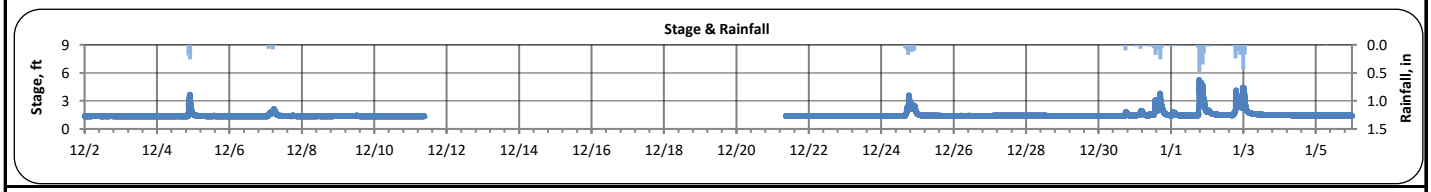
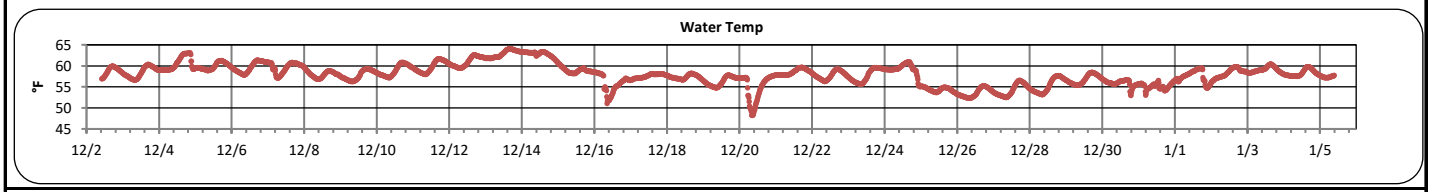
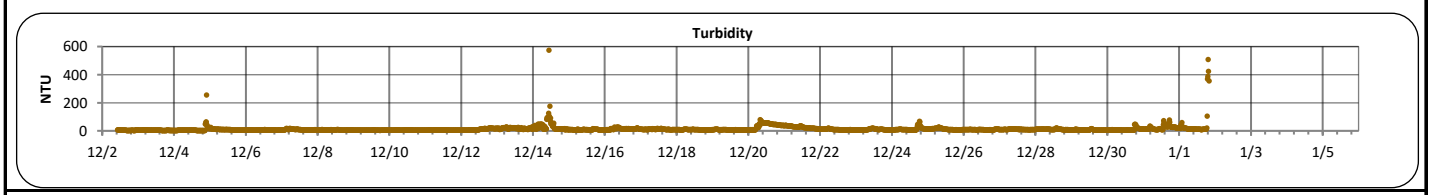
Rocky Branch A (December 2, 2020 - January 5, 2021)

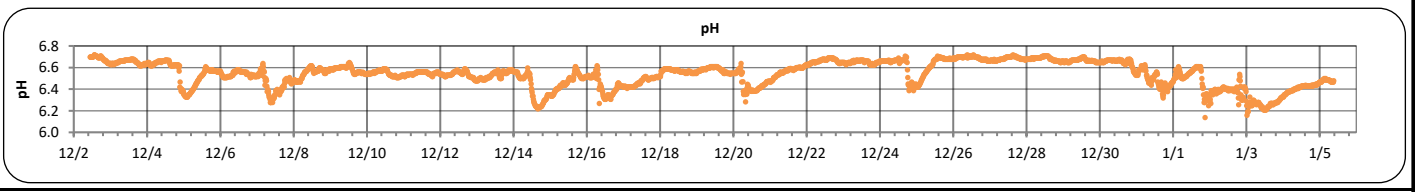
PARAMETER	DESCRIPTION
STREAM NAME:	Rocky Branch
LOCATION:	Maxcy Gregg Park
ADDRESS:	1650 Park Circle Columbia, SC 29201
COORDINATES:	33.995864, -81.021842
TMDL/IMPAIRMENT:	Fecal Coliform
NEIGHBORING LANDUSE:	Residential and commercial
SPATIAL LOCATION:	Most upstream site
TOTAL NO. STORMS OVER 0.1 INCH:	7
MAX. DAILY RAINFALL:	1.4 inches
TOTAL RAINFALL (FOR PERIOD):	5.2 inches

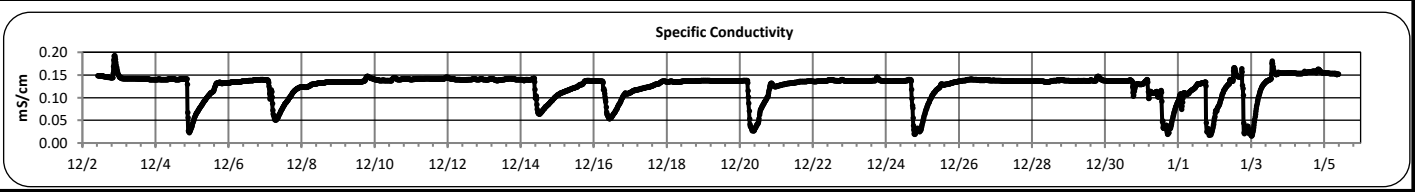
CONTINUOUS WATER QUALITY PARAMETERS:	SUMMARY STATISTICS				
	MINIMUM OBSERVED	MAXIMUM OBSERVED	MEDIAN OBSERVED	MEAN OBSERVED	STANDARD DEVIATION
STAGE (FT):	1.4	5.3	1.4	1.5	0.3
TEMPERATURE (°F):	48	64	58	58	3
TURBIDITY (NTU):	3	575	9	13	23
pH:	6.1	6.7	6.6	6.5	0.1
SPECIFIC CONDUCTIVITY (mS/cm):	0.016	0.193	0.137	0.126	0.028
DISSOLVED OXYGEN (mg/L):	4.6	11.1	8.6	8.5	0.9

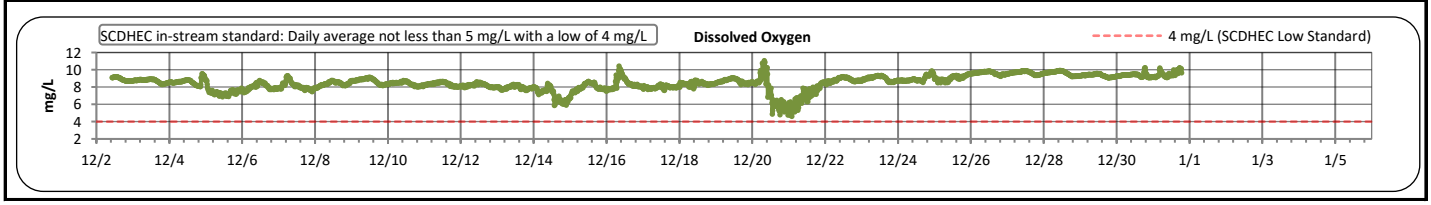












Note: Data gaps appear when the sonde is removed for calibration or when the flow depth is below the sensors

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Continuous Water Quality
Monitoring Periodic Report

Rocky Branch A (December 2, 2020 - January 5, 2021)

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	
	12/10/2020							
	Time	Results	Time	Results	Time	Results	Time	Results
Escherichia coli (MPN/100mL)	11:58	126						
Total Suspended Solids (mg/L)								
Total Phosphorus (mg/L)								
Total Nitrogen (mg/L)								

Notes: Sample 1 was collected during dry weather conditions.

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Continuous Water Quality Monitoring Periodic Report

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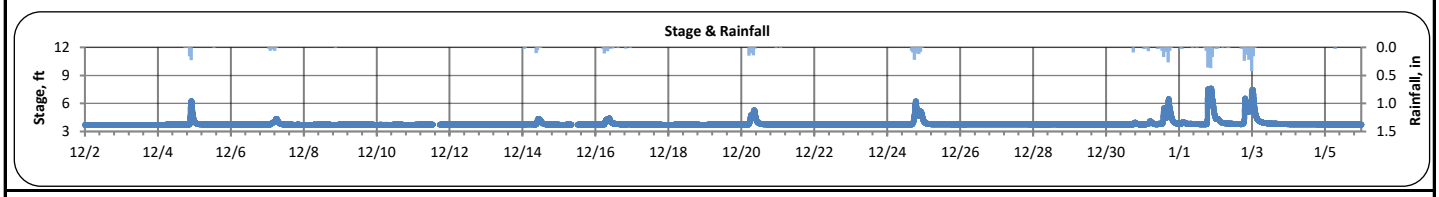
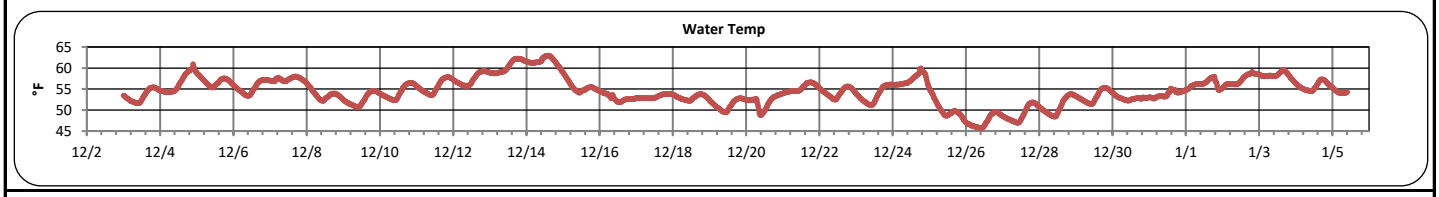
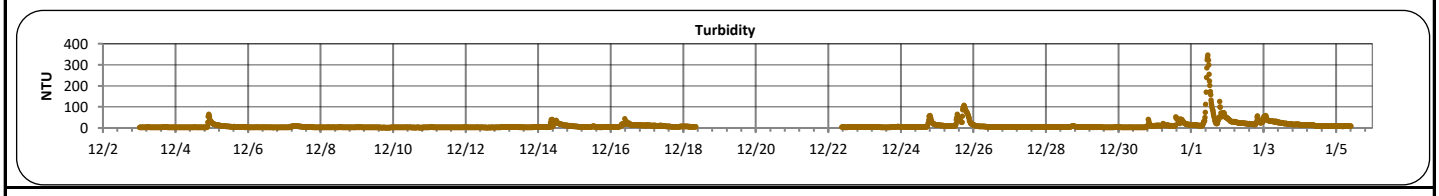
Rocky Branch B (December 2, 2020 - January 5, 2021)

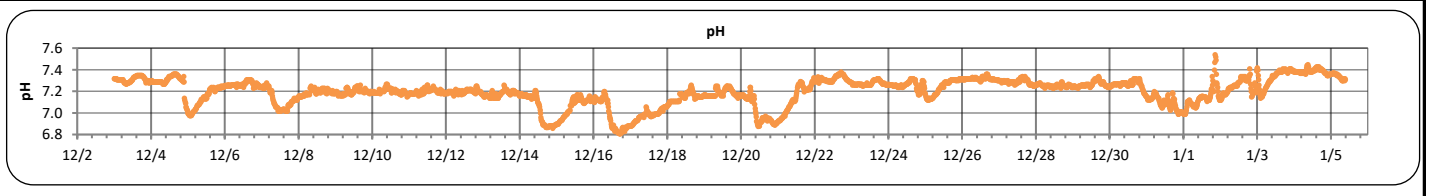
PARAMETER	DESCRIPTION
STREAM NAME:	Rocky Branch
LOCATION:	Olympia Ave Crossing
ADDRESS:	510 Heyward St Columbia, SC 29201
COORDINATES:	33.982578, -81.035036
TMDL/IMPAIRMENT:	Fecal Coliform
NEIGHBORING LANDUSE:	Residential and commercial
SPATIAL LOCATION:	Most Downstream Site
TOTAL NO. STORMS OVER 0.1 INCH:	10
MAX. DAILY RAINFALL:	1.4 inches
TOTAL RAINFALL (FOR PERIOD):	6.2 inches

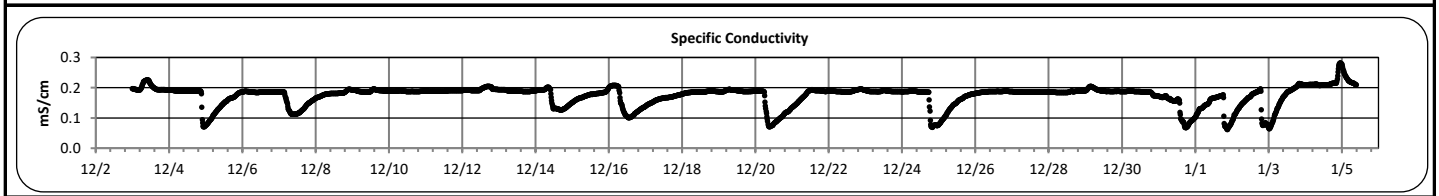
CONTINUOUS WATER QUALITY PARAMETERS:	SUMMARY STATISTICS				
	MINIMUM OBSERVED	MAXIMUM OBSERVED	MEDIAN OBSERVED	MEAN OBSERVED	STANDARD DEVIATION
STAGE (FT):	3.7	7.6	3.8	3.8	0.4
TEMPERATURE (°F):	46	63	54	54	3
TURBIDITY (NTU):	2	347	6	12	22
pH:	6.8	7.5	7.2	7.2	0.1
SPECIFIC CONDUCTIVITY (mS/cm):	0.062	0.282	0.187	0.174	0.033
DISSOLVED OXYGEN (mg/L):	8.1	11.4	9.9	9.9	0.5

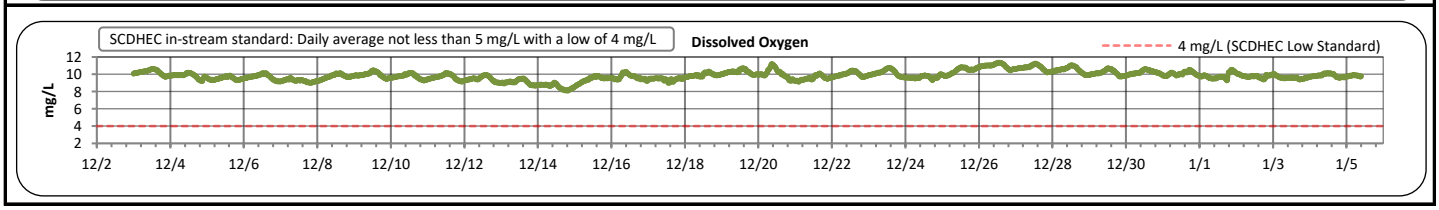












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Continuous Water Quality
Monitoring Periodic Report

Rocky Branch B (December 2, 2020 - January 5, 2021)

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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	
	12/10/2020							
	Time	Results	Time	Results	Time	Results	Time	Results
Escherichia coli (MPN/100mL)	12:08	40						
Total Suspended Solids (mg/L)								
Total Phosphorus (mg/L)								
Total Nitrogen (mg/L)								

Notes: Sample 1 was collected during dry weather conditions.