Smith Branch Monitoring Sites
Monitoring Data Summary for
December 6th, 2018 – January 8th, 2019

Data Gaps

- The SMIA station experienced fouling turbidity data from December 26th-28th due to excessive buildup of sediment and leaf debris. This period of data was removed from the dataset.
- The SMIB station did not experience any interruptions in the data during this monitoring period.

SCDHEC Standards

- Neither of the Smith Branch stations recorded pH values outside of the acceptable SCDHEC range of 6 to 8.5.
- The SMIA and SMIB stations recorded average DO concentrations of 9.8 mg/L and 10.1 mg/L, respectively, which are both well above the SCDHEC daily average standard of 5 mg/L.
- The minimum DO concentration recorded at the SMIA station was 7.2 mg/L and 8.7 mg/L at the SMIB station, which are well above the SCDHEC discrete minimum standard of 4.0 mg/L.

Storm Events

- The SMIA station recorded 11 storms (at least 0.1 inches) in this monitoring period that resulted in 7.7 inches of precipitation. The SMIB station recorded 10 storms (at least 0.1 inches) in this monitoring period that resulted in 7.4 inches of precipitation.
- The Smith Branch monitoring stations both recorded typical water quality responses to the storm events observed during this monitoring period.
- The maximum antecedent dry time since the last significant precipitation event (at least 0.1 inch) was approximately 6.5 days at the SMIA station and 7.1 days at the SMIB station, both occurring prior to the storm event on December 28th.

Potential Illicit Discharges and Abnormal Events

- A potential turbidity illicit was observed at the SMIA station at the beginning of the deployment, which occurred overnight, December 6th-7th.
- There were no abnormal events observed at the SMIB station during this monitoring period.

Flow Measurements

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

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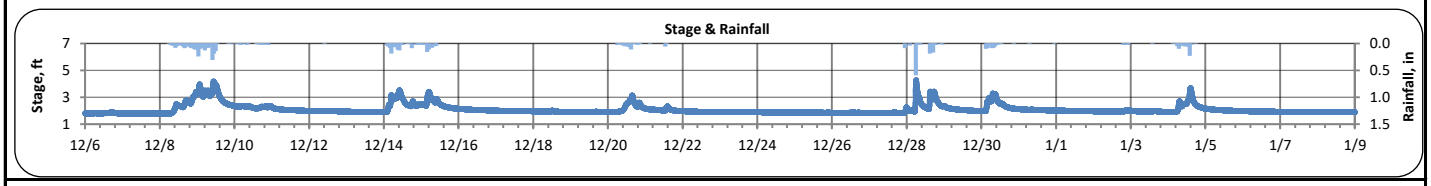
Continuous Water Quality Monitoring Periodic Report

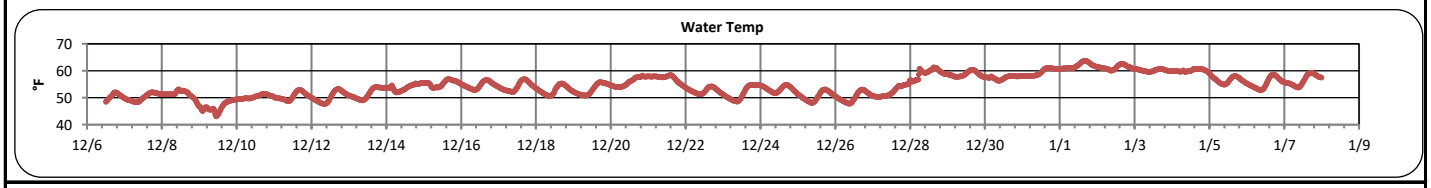
WOOLPERT

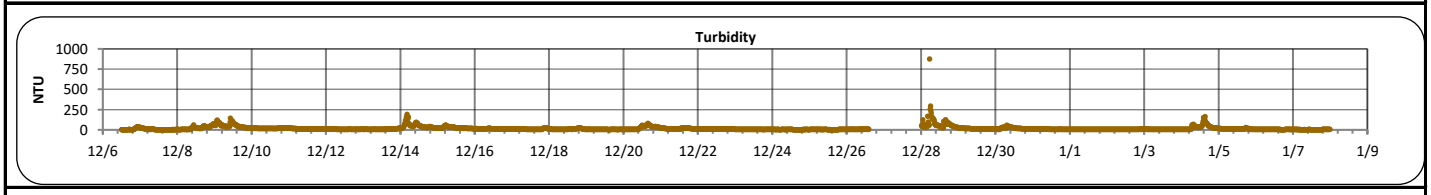
Smith Branch A (December 6, 2018 -- January 8, 2019)

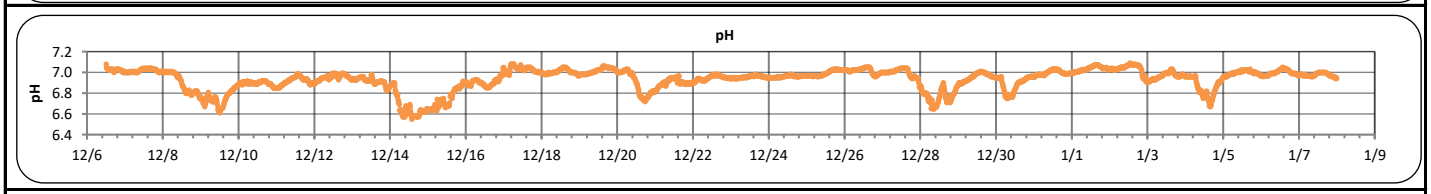
PARAMETER	DESCRIPTION
STREAM NAME:	Smith Branch
LOCATION:	Earlewood Park
ADDRESS:	1111 Parkside Dr Columbia, SC 29201
COORDINATES:	34.027289,-81.04265
TMDL/IMPAIRMENT:	Fecal Coliform
NEIGHBORING LANDUSE:	Residential and commercial
SPATIAL LOCATION:	Most upstream site
TOTAL NO. STORMS OVER 0.1 INCH:	11
MAX. DAILY RAINFALL:	1.5 inches
TOTAL RAINFALL (FOR PERIOD):	7.7 inches

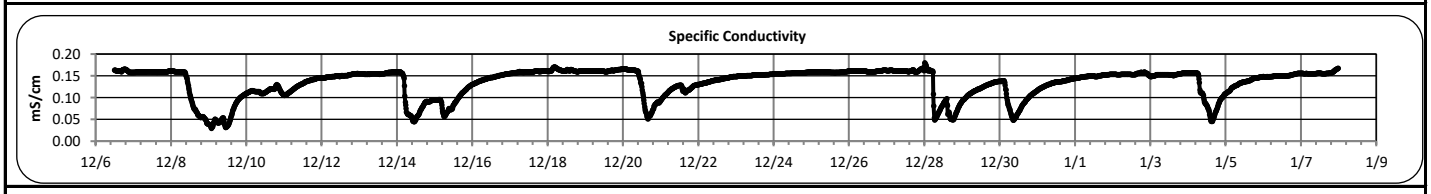
CONTINUOUS WATER QUALITY PARAMETERS:	SUMMARY STATISTICS				
	MINIMUM OBSERVED	MAXIMUM OBSERVED	MEDIAN OBSERVED	MEAN OBSERVED	STANDARD DEVIATION
STAGE (FT):	1.8	4.3	2.0	2.1	0.4
TEMPERATURE (°F):	43	64	54	55	4
TURBIDITY (NTU):	4	876	10	18	27
pH:	6.6	7.1	7.0	6.9	0.1
SPECIFIC CONDUCTIVITY (mS/cm):	0.03	0.18	0.150	0.135	0.033
DISSOLVED OXYGEN (mg/L):	7.2	12.2	9.8	9.8	0.6

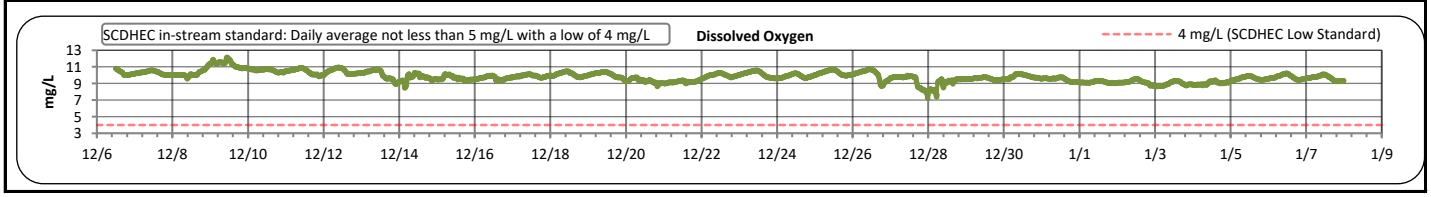












Note: Data gaps appear when the sonde is removed for calibration or when the flow depth is below the sensors

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Continuous Water Quality
Monitoring Periodic Report

Smith Branch A (December 6, 2018 -- January 8, 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	
	Time	Result	Time	Result	Time	Result	Time	Result
Escherichia coli (MPN/100mL)								
Total Suspended Solids (mg/L)								
Total Phosphorus (mg/L)								
Total Nitrogen (mg/L)								

Note:

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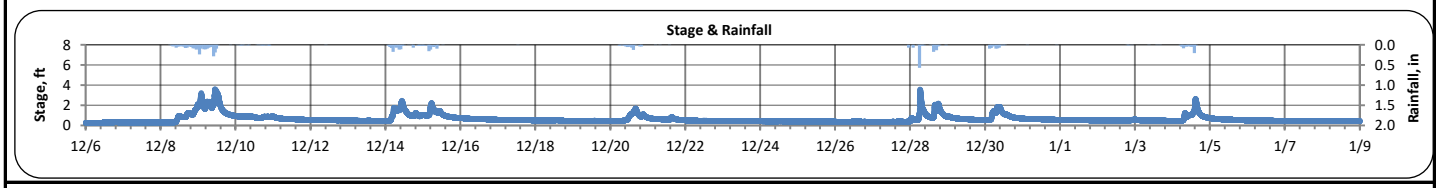
Continuous Water Quality Monitoring Periodic Report

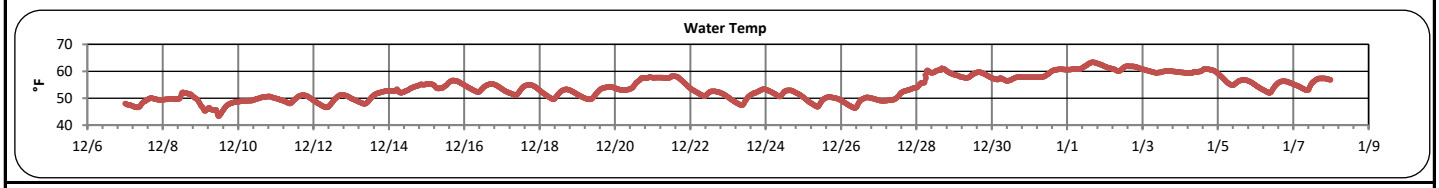
WOOLPERT

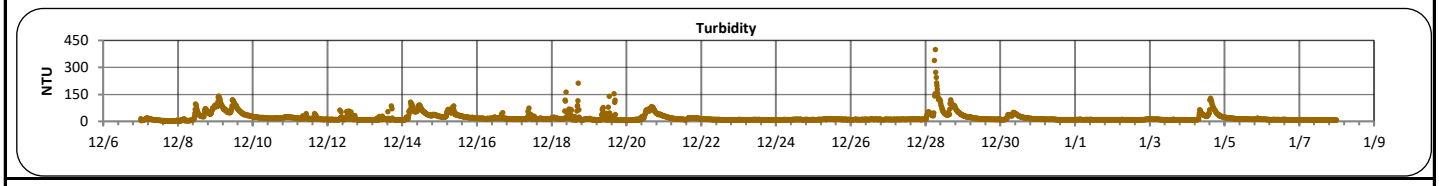
Smith Branch B (December 6, 2018 -- January 8, 2019)

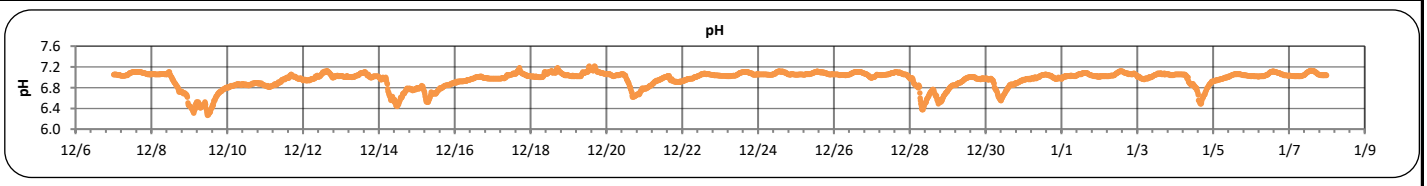
PARAMETER	DESCRIPTION
STREAM NAME:	Smith Branch
LOCATION:	Off Mountain Drive
NEAREST ADDRESS:	3950 Clement Rd Columbia, SC 29203
COORDINATES:	34.037933,-81.0591
TMDL/IMPAIRMENT:	Fecal Coliform
NEIGHBORING LANDUSE:	Residential and commercial
SPATIAL LOCATION:	Most Downstream Site
TOTAL NO. STORMS OVER 0.1 INCH:	10
MAX. DAILY RAINFALL:	1.5 inches
TOTAL RAINFALL (FOR PERIOD):	7.4 inches

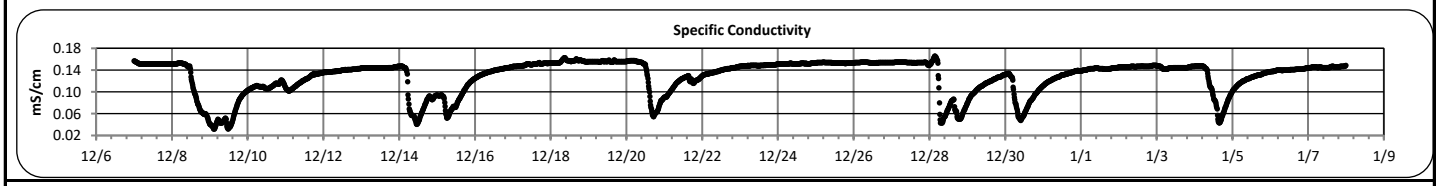
CONTINUOUS WATER QUALITY PARAMETERS:	SUMMARY STATISTICS				
	MINIMUM OBSERVED	MAXIMUM OBSERVED	MEDIAN OBSERVED	MEAN OBSERVED	STANDARD DEVIATION
STAGE (FT):	0.2	3.6	0.5	0.7	0.4
TEMPERATURE (°F):	43	63	53	54	4
TURBIDITY (NTU):	4	400	13	22	24
pH:	6.3	7.2	7.0	7.0	0.2
SPECIFIC CONDUCTIVITY (mS/cm):	0.032	0.166	0.143	0.129	0.031
DISSOLVED OXYGEN (mg/L):	8.7	12.1	10.2	10.1	0.7

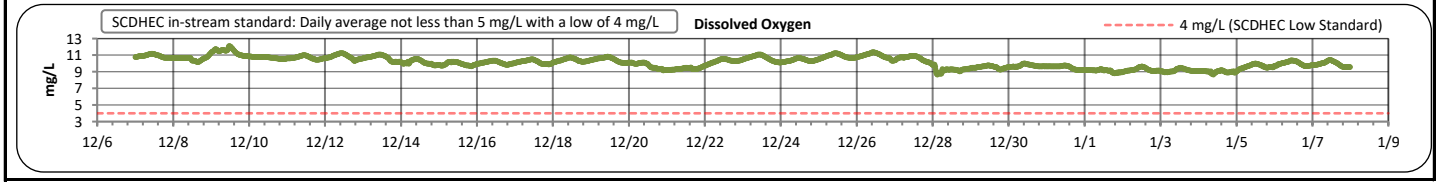












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