Smith Branch Monitoring Sites
Monitoring Data Summary for
August 29th, 2019 – October 2nd, 2019

Data Gaps

- The SMIA station experienced a brief period of turbidity fouling from September 13th-16th. This period of turbidity data was deleted from the dataset.
- The SMIB datasonde was not in the field for this entire deployment period due to low stage in the creek, therefore there is no water quality data record from August 29th-October 2nd.
- The monitoring website experienced reporting issues with the CS451 pressure transducers at SMIA and SMIB from September 7th-8th, therefore there is no CS451 stage data record for that period.

SCDHEC Standards

- The SMIA station did not record any pH values outside of the acceptable SCDHEC range of 6 to 8.5.
- The SMIA station recorded an average DO concentration of 7.0 mg/L, which is above the SCDHEC daily average standard of 5 mg/L.
- The minimum DO concentration recorded at the SMIA station was 5.3 mg/L, which is above the SCDHEC discrete minimum standard of 4 mg/L.

Storm Events

- The SMIA rain gauge recorded 2 storms (at least 0.1 inches) in this monitoring period resulting in 1.7 inches of precipitation. The SMIB rain gauge recorded 2 storms (at least 0.1 inches) resulting in 2.1 inches of precipitation.
- The SMIA monitoring station 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 28.9 days in the Smith Branch watershed, occurring prior to the September 30th storm event.

Potential Illicit Discharges and Abnormal Events

- There were no potential illicit discharges or abnormal events recorded at the SMIA 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 — Partnering for clean waterways

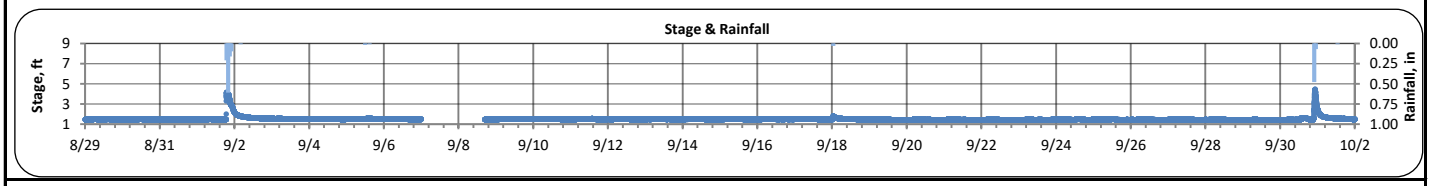
Continuous Water Quality Monitoring Periodic Report

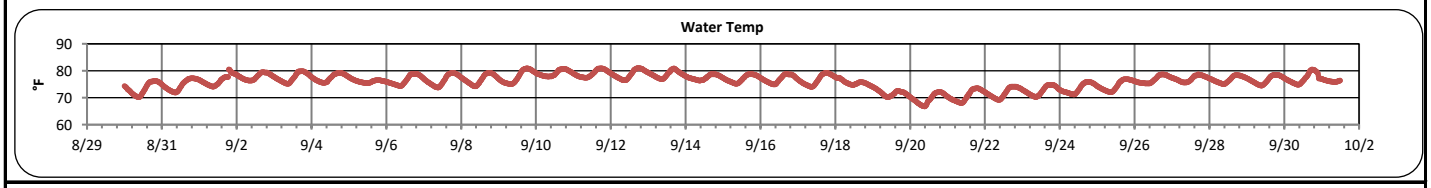
WOOLPERT

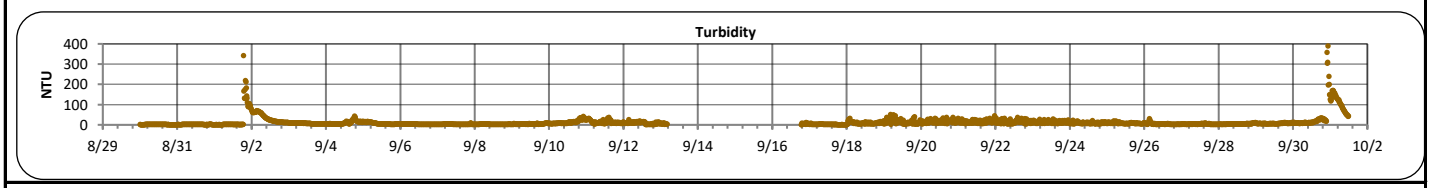
Smith Branch A (August 29, 2019 -- October 2, 2019)

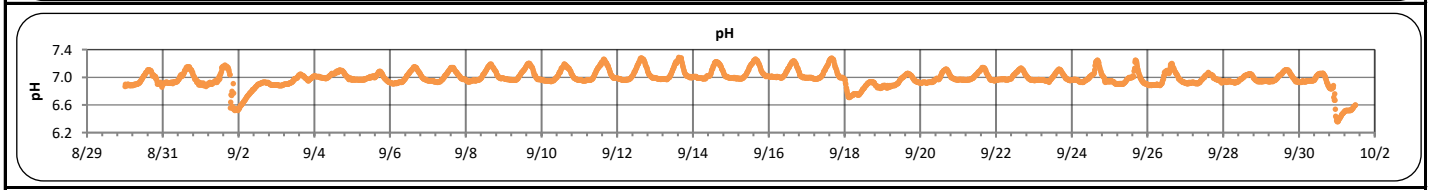
PARAMETER	DESCRIPTION
STREAM NAME:	Smith Branch
LOCATION:	Earlewood Park
ADDRESS:	1111 Parkside Dr Columbia, SC 29201
COORDINATES:	34.027289,-81.04265
TMDL/IMPAIRMENT:	Fecal Coliform
NEIGHBORING LANDUSE:	Residential and commercial
SPATIAL LOCATION:	Most upstream site
TOTAL NO. STORMS OVER 0.1 INCH:	2
MAX. DAILY RAINFALL:	1.1 inches
TOTAL RAINFALL (FOR PERIOD):	1.7 inches

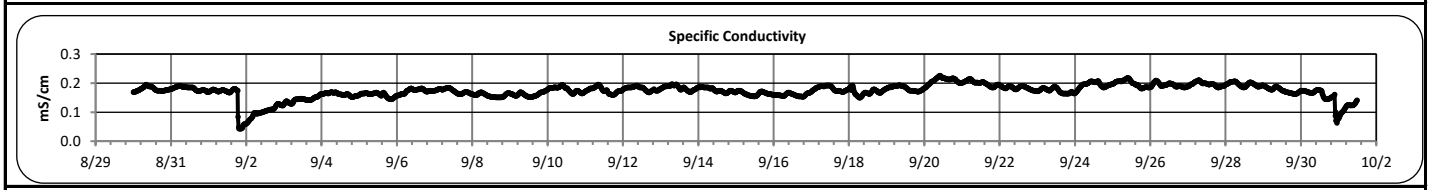
CONTINUOUS WATER QUALITY PARAMETERS:	SUMMARY STATISTICS				
	MINIMUM OBSERVED	MAXIMUM OBSERVED	MEDIAN OBSERVED	MEAN OBSERVED	STANDARD DEVIATION
STAGE (FT):	1.4	4.5	1.5	1.5	0.2
TEMPERATURE (°F):	67	81	76	76	3
TURBIDITY (NTU):	2	390	7	13	25
pH:	6.4	7.3	7.0	7.0	0.1
SPECIFIC CONDUCTIVITY (mS/cm):	0.043	0.226	0.176	0.173	0.025
DISSOLVED OXYGEN (mg/L):	5.3	8.5	6.9	7.0	0.6

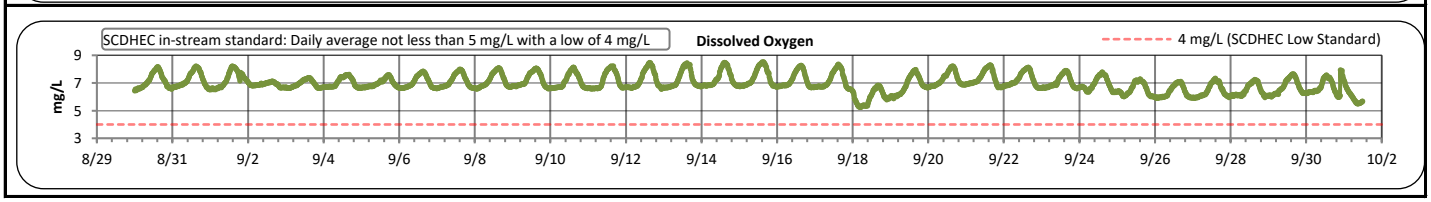












Note: Data gaps appear when the sonde is removed for calibration or when the flow depth is below the sensors

REPORT GENERATED ON 12/9/2019

Continuous Water Quality
Monitoring Periodic Report

Smith Branch A (August 29, 2019 -- October 2, 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	
	9/20/2019							
	Time	Result	Time	Result	Time	Result	Time	Result
Escherichia coli (MPN/100mL)	10:24	978						
Total Suspended Solids (mg/L)	10:24	2.4						
Total Phosphorus (mg/L)								
Total Nitrogen (mg/L)								

Note: This sample was collected during dry weather conditions.

REPORT GENERATED ON 12/9/2019

City of Columbia, SC Stormwater Management — Partnering for clean waterways

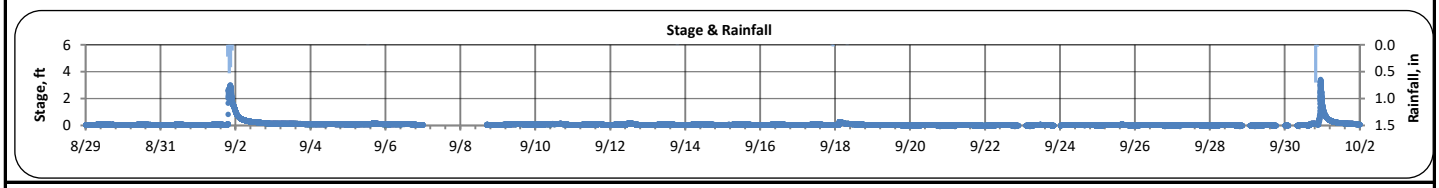
Continuous Water Quality Monitoring Periodic Report

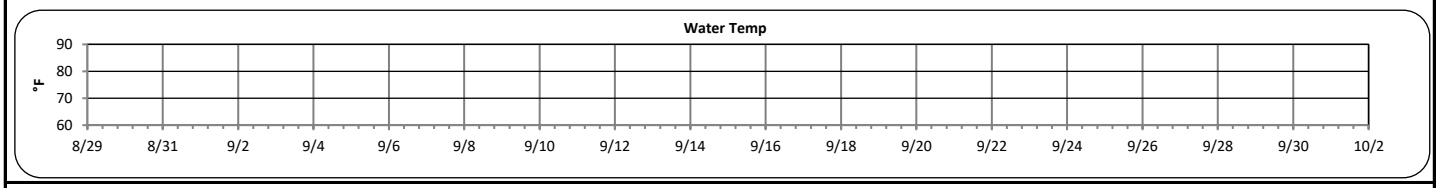
WOOLPERT

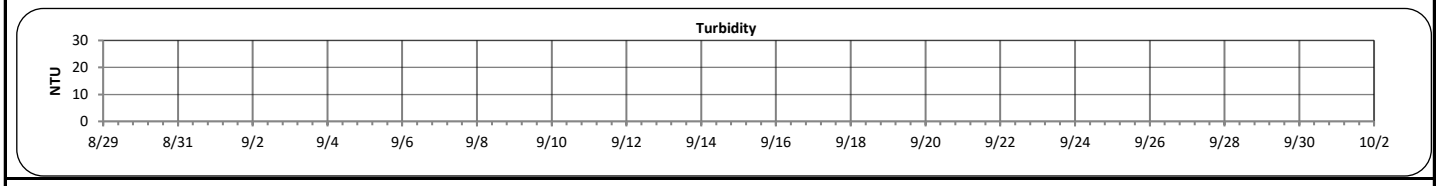
Smith Branch B (August 29, 2019 -- October 2, 2019)

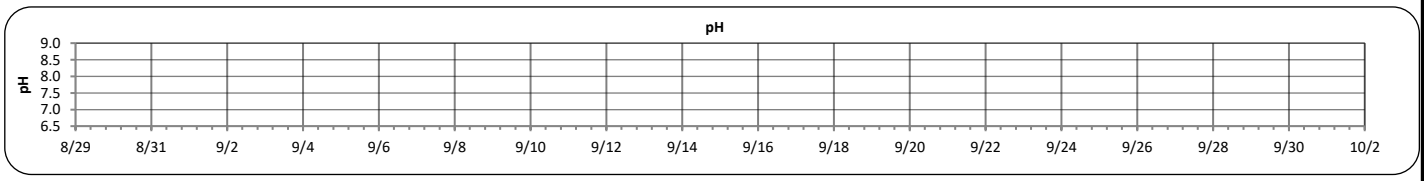
PARAMETER	DESCRIPTION
STREAM NAME:	Smith Branch
LOCATION:	Off Mountain Drive
NEAREST ADDRESS:	3950 Clement Rd Columbia, SC 29203
COORDINATES:	34.037933,-81.0591
TMDL/IMPAIRMENT:	Fecal Coliform
NEIGHBORING LANDUSE:	Residential and commercial
SPATIAL LOCATION:	Most Downstream Site
TOTAL NO. STORMS OVER 0.1 INCH:	2
MAX. DAILY RAINFALL:	1.3 inches
TOTAL RAINFALL (FOR PERIOD):	2.1 inches

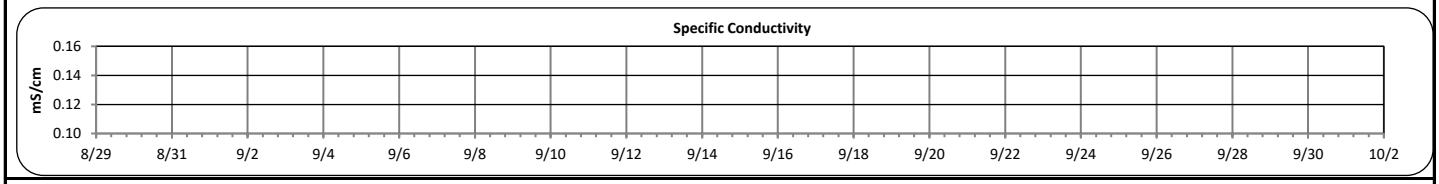
CONTINUOUS WATER QUALITY PARAMETERS:	SUMMARY STATISTICS				
	MINIMUM OBSERVED	MAXIMUM OBSERVED	MEDIAN OBSERVED	MEAN OBSERVED	STANDARD DEVIATION
STAGE (FT):	0.01	3.4	0.1	0.1	0.2
TEMPERATURE (°F):	N/A	N/A	N/A	N/A	N/A
TURBIDITY (NTU):	N/A	N/A	N/A	N/A	N/A
pH:	N/A	N/A	N/A	N/A	N/A
SPECIFIC CONDUCTIVITY (mS/cm):	N/A	N/A	N/A	N/A	N/A
DISSOLVED OXYGEN (mg/L):	N/A	N/A	N/A	N/A	N/A

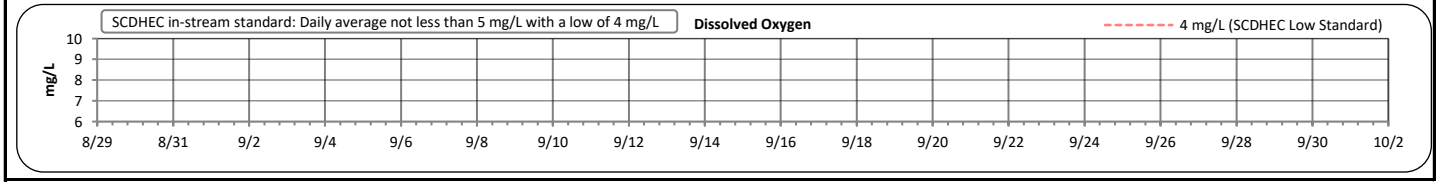












Note: The SMIB sonde was not deployed during August 29, 2019 - October 1, 2019 due to low stage.

REPORT GENERATED ON 12/9/2019

Continuous Water Quality
Monitoring Periodic Report

Smith Branch B (August 29, 2019 -- October 2, 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	
	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)								