

# Smith Branch Monitoring Sites

## Monitoring Data Summary for October 3<sup>rd</sup>, 2019 – November 6<sup>th</sup>, 2019

### *Data Gaps*

- The SMIA station did not experience any interruptions in the data record.
- The SMIB sonde was not in the field for this entire monitoring period due to low stage in the creek, therefore there is no water quality data record from October 3<sup>rd</sup>-November 6<sup>th</sup>.

### *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 7.8 mg/L, which is above the SCDHEC daily average standard of 5 mg/L.
- The minimum DO concentration recorded at the SMIA station was 6 mg/L, which is above the SCDHEC discrete minimum standard of 4 mg/L.

### *Storm Events*

- The SMIA rain gauge recorded 6 storms (at least 0.1 inches) in this monitoring period resulting in 2.8 inches of precipitation. The SMIB rain gauge recorded 7 storms (at least 0.1 inches) resulting in 2.7 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 12.7 days in the Smith Branch watershed, occurring prior to the October 13<sup>th</sup> storm event.

### *Potential Illicit Discharges and Abnormal Events*

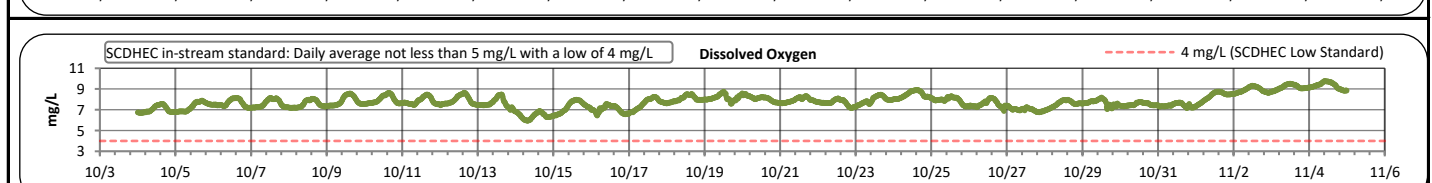
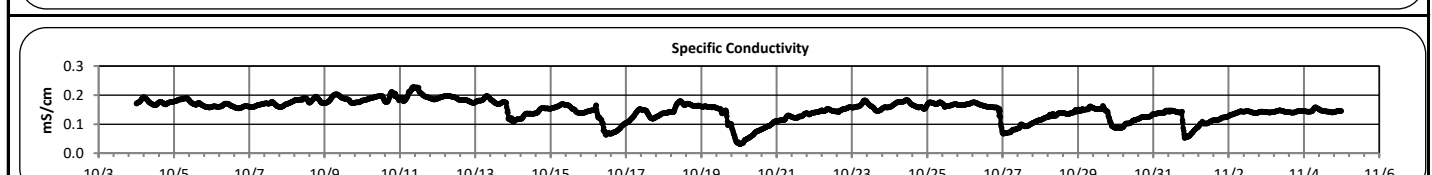
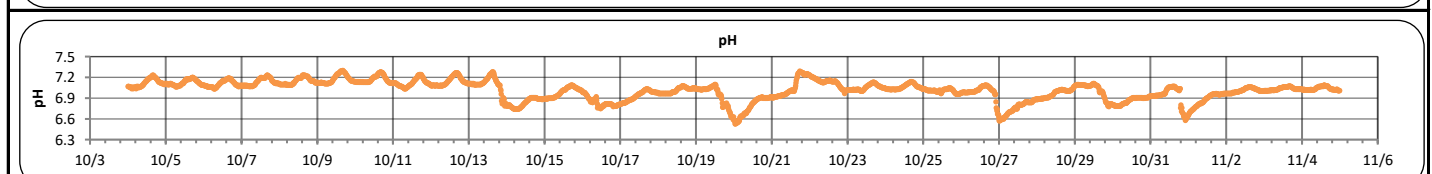
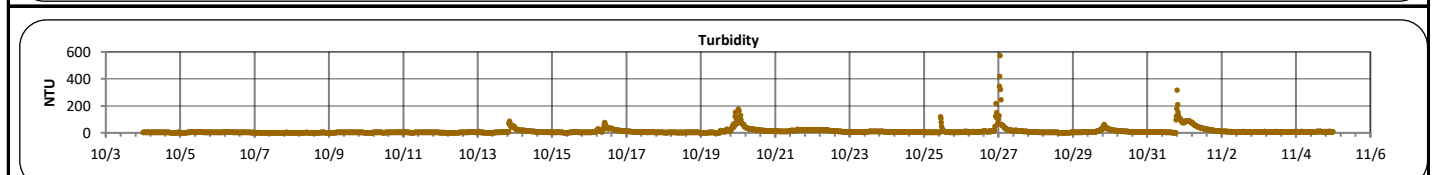
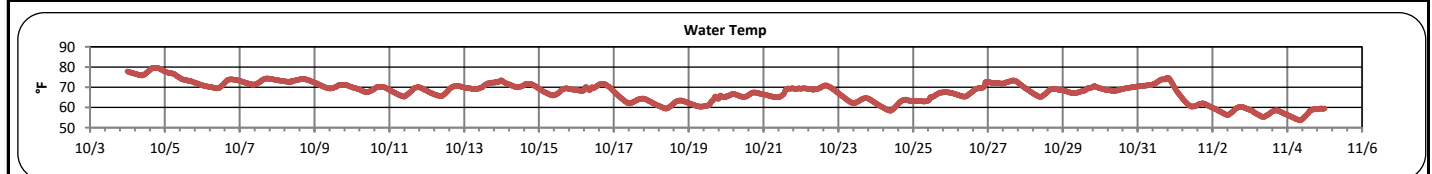
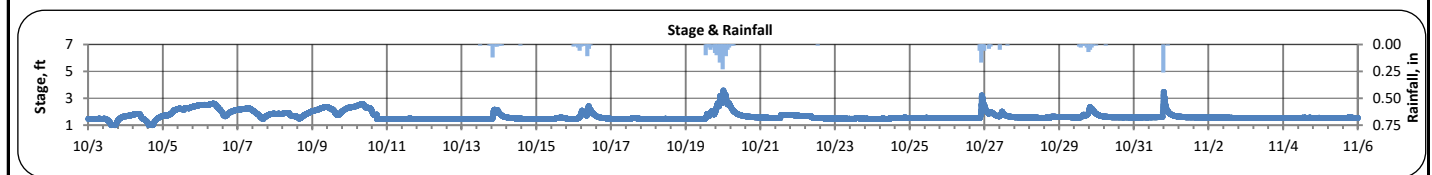
- There were no potential illicit discharges or abnormal events observed at the SMIA station during this monitoring period.

### *Flow Measurements*

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

Smith Branch A (October 3, 2019 - November 6, 2019)

PARAMETER	DESCRIPTION	CONTINUOUS WATER QUALITY PARAMETERS:	SUMMARY STATISTICS				
			MINIMUM OBSERVED	MAXIMUM OBSERVED	MEDIAN OBSERVED	MEAN OBSERVED	STANDARD DEVIATION
STREAM NAME:	Smith Branch	STAGE (FT):	0.9	3.6	1.6	1.7	0.3
LOCATION:	Earlewood Park	TEMPERATURE (°F):	54	80	69	68	5
ADDRESS:	1111 Parkside Dr Columbia, SC 29201	TURBIDITY (NTU):	2	573	6	13	25
COORDINATES:	34.027289,-81.04265	pH:	6.5	7.3	7.0	7.0	0.1
TMDL/IMPAIRMENT:	Fecal Coliform	SPECIFIC CONDUCTIVITY (mS/cm):	0.032	0.230	0.154	0.149	0.034
NEIGHBORING LANDUSE:	Residential and commercial	DISSOLVED OXYGEN (mg/L):	6.0	9.8	7.7	7.8	0.7
SPATIAL LOCATION:	Most upstream site						
TOTAL NO. STORMS OVER 0.1 INCH:	6						
MAX. DAILY RAINFALL:	0.9 inches						
TOTAL RAINFALL (FOR PERIOD):	2.8 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**

**Smith Branch A (October 3, 2019 - November 6, 2019)**

**Explanation of Statistics:**

<b>MINIMUM OBSERVED</b>	The minimum of the values recorded by the datasonde in 15 minute intervals.
<b>MAXIMUM OBSERVED</b>	The maximum of the values recorded by the datasonde in 15 minute intervals.
<b>MEDIAN OBSERVED</b>	The median of all the values recorded by the datasonde in 15 minute intervals.
<b>MEAN OBSERVED</b>	The average of all the values recorded by the datasonde in 15 minute intervals.
<b>STANDARD DEVIATION</b>	The standard deviation of all the values recorded by the datasonde in 15 minute intervals.

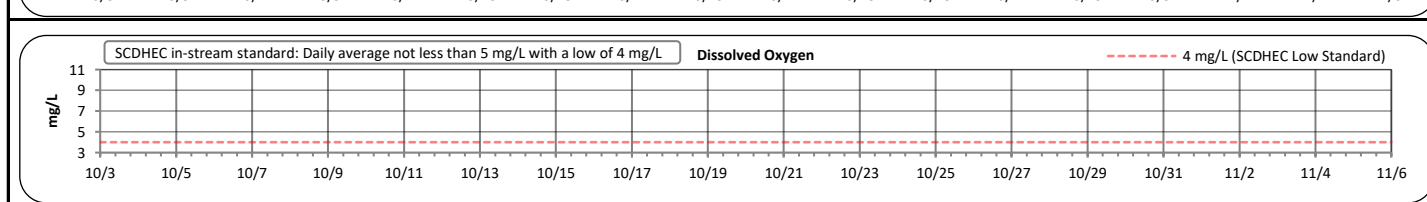
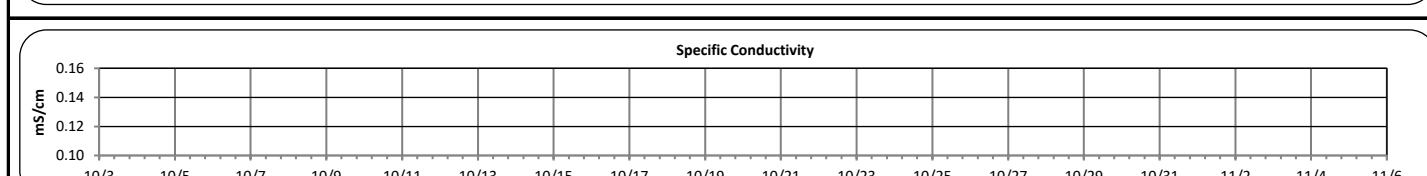
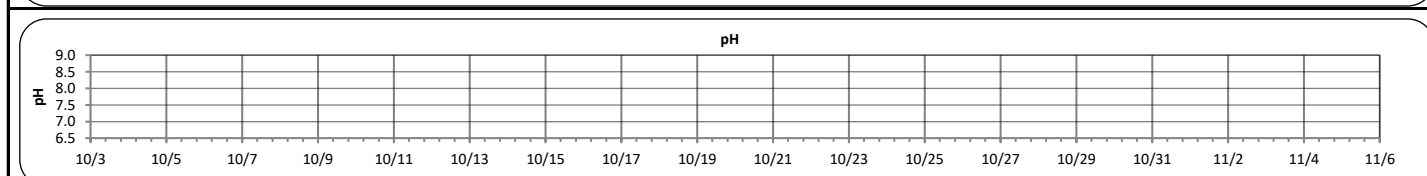
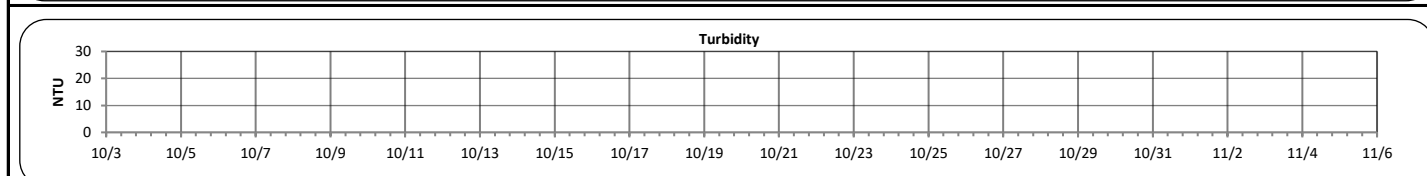
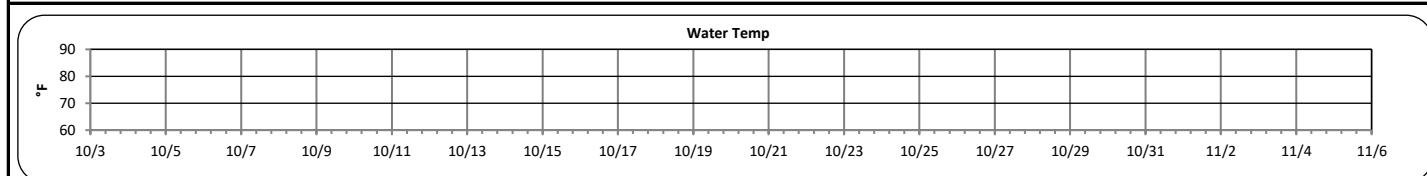
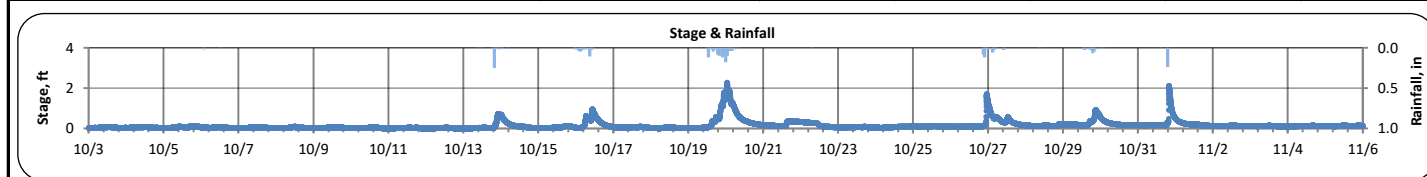
**Grab Sample Data:**

Analyte (units)	Sample 1		Sample 2		Sample 3		Sample 4	
	10/16/2019		10/16/2019					
	Time	Result	Time	Result	Time	Result	Time	Result
<i>Escherichia coli</i> (MPN/100mL)	8:36	10340	9:10	18,420				
Total Suspended Solids (mg/L)	8:36	17.7	9:10	46.2				
Total Phosphorus (mg/L)	8:36	0.12	9:10	0.18				
Total Nitrogen (mg/L)	8:36	1.22	9:10	1.75				

Note: Samples 1 and 2 were taken during wet weather conditions.

Smith Branch B (October 3, 2019 - November 6, 2019)

PARAMETER	DESCRIPTION	CONTINUOUS WATER QUALITY PARAMETERS:	SUMMARY STATISTICS				
			MINIMUM OBSERVED	MAXIMUM OBSERVED	MEDIAN OBSERVED	MEAN OBSERVED	STANDARD DEVIATION
STREAM NAME:	Smith Branch	STAGE (FT):	0.01	2.3	0.1	0.2	0.2
LOCATION:	Off Mountain Drive	TEMPERATURE (°F):	N/A	N/A	N/A	N/A	N/A
NEAREST ADDRESS:	3950 Clement Rd Columbia, SC 29203	TURBIDITY (NTU):	N/A	N/A	N/A	N/A	N/A
COORDINATES:	34.037933,-81.0591	pH:	N/A	N/A	N/A	N/A	N/A
TMDL/IMPAIRMENT:	Fecal Coliform	SPECIFIC CONDUCTIVITY (mS/cm):	N/A	N/A	N/A	N/A	N/A
NEIGHBORING LANDUSE:	Residential and commercial	DISSOLVED OXYGEN (mg/L):	N/A	N/A	N/A	N/A	N/A
SPATIAL LOCATION:	Most Downstream Site						
TOTAL NO. STORMS OVER 0.1 INCH:	7						
MAX. DAILY RAINFALL:	0.8 inches						
TOTAL RAINFALL (FOR PERIOD):	2.7 inches						



Note: The SMIB sonde was not deployed during October 3, 2019 - November 6, 2019 due to low stage.

**Continuous Water Quality  
Monitoring Periodic Report**

**Smith Branch B (October 3, 2019 - November 6, 2019)**

**Explanation of Statistics:**

<b>MINIMUM OBSERVED</b>	The minimum of the values recorded by the datasonde in 15 minute intervals.
<b>MAXIMUM OBSERVED</b>	The maximum of the values recorded by the datasonde in 15 minute intervals.
<b>MEDIAN OBSERVED</b>	The median of all the values recorded by the datasonde in 15 minute intervals.
<b>MEAN OBSERVED</b>	The average of all the values recorded by the datasonde in 15 minute intervals.
<b>STANDARD DEVIATION</b>	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	
	10/16/2019		10/16/2019					
	Time	Result	Time	Result	Time	Result	Time	Result
<i>Escherichia coli</i> (MPN/100mL)	8:52	3,720	10:12	7746				
Total Suspended Solids (mg/L)	8:52	11.3	10:12	43.4				
Total Phosphorus (mg/L)	8:52	0.1	10:12	0.17				
Total Nitrogen (mg/L)	8:52	1.56	10:12	1.66				

Note: Samples 1 and 2 were taken during wet weather conditions.