

Smith Branch Monitoring Sites

Monitoring Data Summary for May 4th, 2017 – June 7th, 2017

Data Gaps

- The SMIA station did not record any interruptions in the dataset during this monitoring period.
- The SMIB station experienced submergence issues from May 15th-21st and June 4th-5th which affected the specific conductivity probe. These periods were removed.

SCDHEC Standards

- Neither the SMIA nor the SMIB station recorded pH values outside of the SCDHEC standards acceptable range 6 to 8.5.
- The SMIA and SMIB stations recorded average DO concentrations of 7.6 mg/L and 8.1 mg/L, respectively, well above the SCDHEC daily average standard of 5 mg/L.
- The minimum DO concentrations were 5.7 mg/L and 6.1 mg/L at the SMIA and SMIB stations, respectively. Each of these minimum DO concentrations is well above the SCDHEC minimum level of 4 mg/L.

Storm Events

- The SMIA and SMIB rain gauges both recorded 10 storm events during this monitoring period. These events resulted in 7.1 total inches of rainfall at SMIA and 7.0 inches of rainfall at SMIB.
- The Smith Branch monitoring stations 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 inches) was approximately 7.8 days in the Smith Branch watershed, and occurred prior to the May 21st storm event.

Potential Illicit Discharges and Abnormal Events

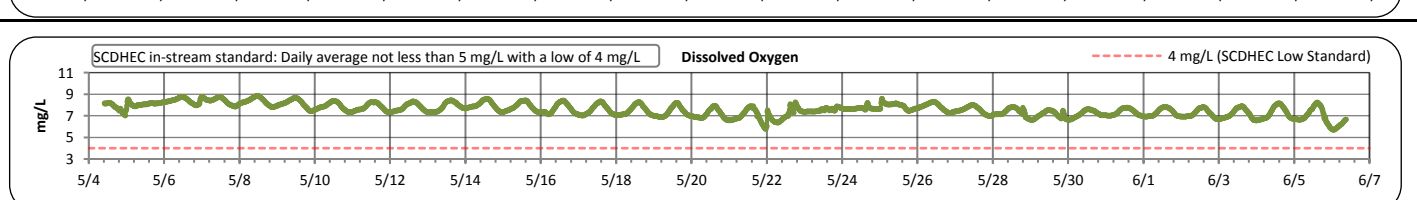
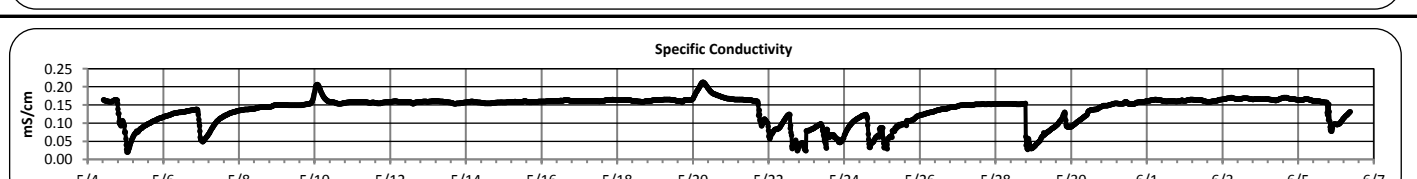
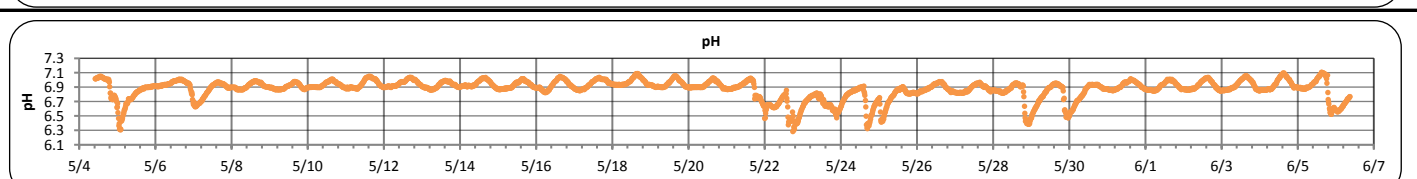
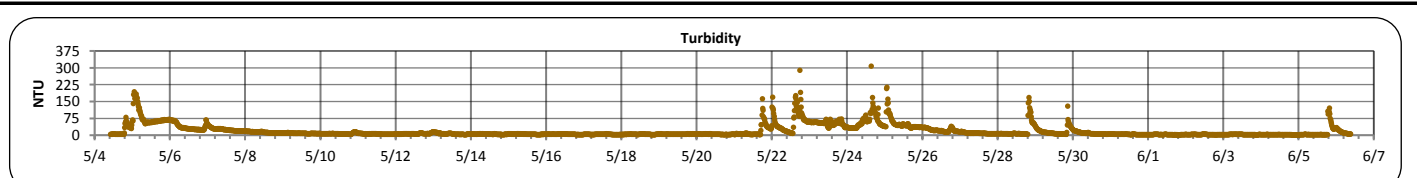
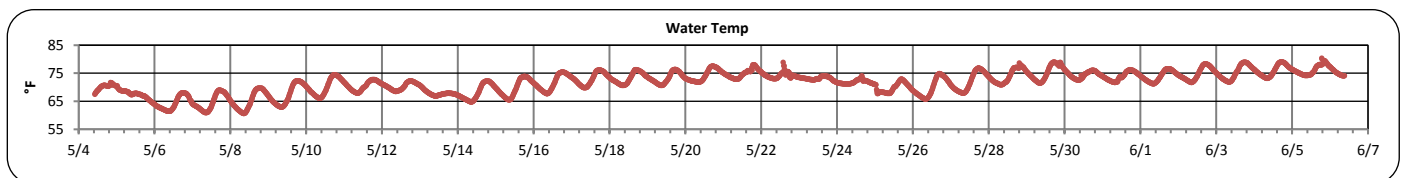
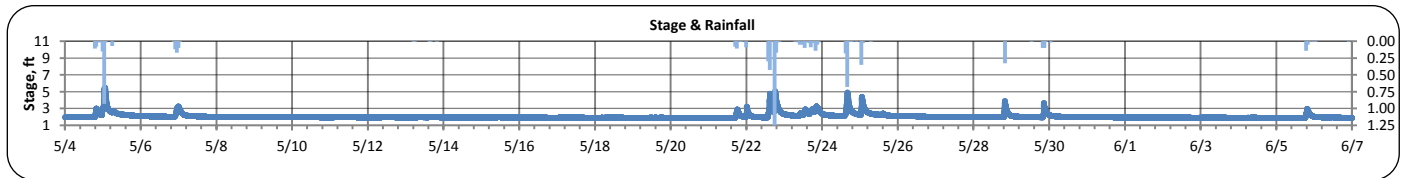
- A slight increase in specific conductivity was observed at both SMIA and SMIB on May 10th. At SMIA, another slight increase in specific conductivity was recorded on May 20th.

Flow Measurements

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

Smith Branch A (May 4, 2017 -- June 7, 2017)

PARAMETER	DESCRIPTION	CONTINUOUS WATER QUALITY PARAMETERS:	SUMMARY STATISTICS				
			MINIMUM OBSERVED	MAXIMUM OBSERVED	MEDIAN OBSERVED	MEAN OBSERVED	STANDARD DEVIATION
STREAM NAME:	Smith Branch	STAGE (FT):	1.9	5.5	2.0	2.1	0.3
LOCATION:	Earlewood Park	TEMPERATURE (°F):	61	80	72	72	4
ADDRESS:	1111 Parkside Dr Columbia, SC 29201	TURBIDITY (NTU):	2	309	7	19	28
COORDINATES:	34.027289,-81.04265	pH:	6.3	7.1	6.9	6.9	0.1
TMDL/IMPAIRMENT:	Fecal Coliform	SPECIFIC CONDUCTIVITY (mS/cm):	0.021	0.213	0.156	0.139	0.036
NEIGHBORING LANDUSE:	Residential and commercial	DISSOLVED OXYGEN (mg/L):	5.7	8.9	7.6	7.6	0.6
SPATIAL LOCATION:	Most upstream site						
TOTAL NO. STORMS OVER 0.1 INCH:	10						
MAX. DAILY RAINFALL:	2.2 inches						
TOTAL RAINFALL (FOR PERIOD):	7.1 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 (May 4, 2017 -- June 7, 2017)

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.

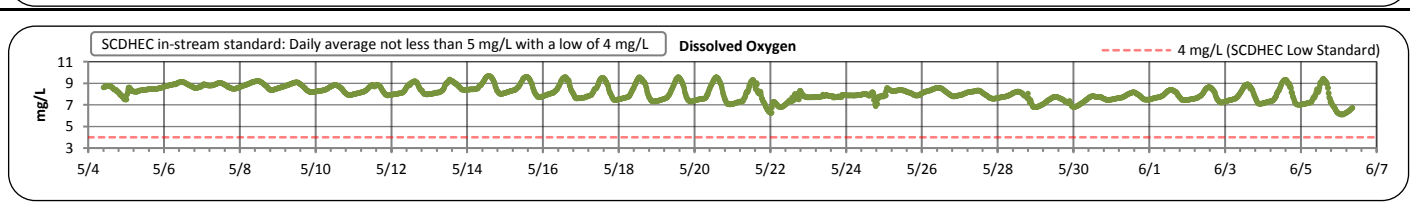
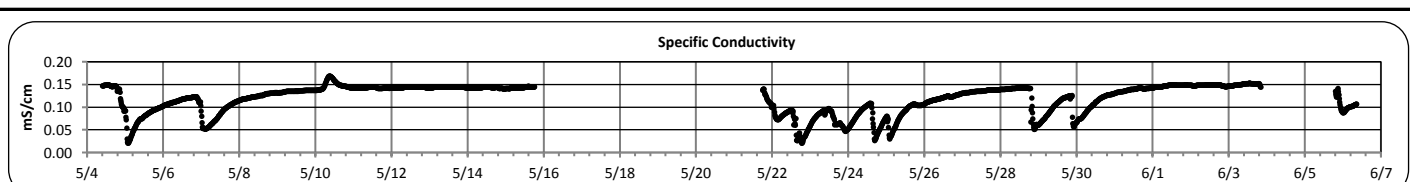
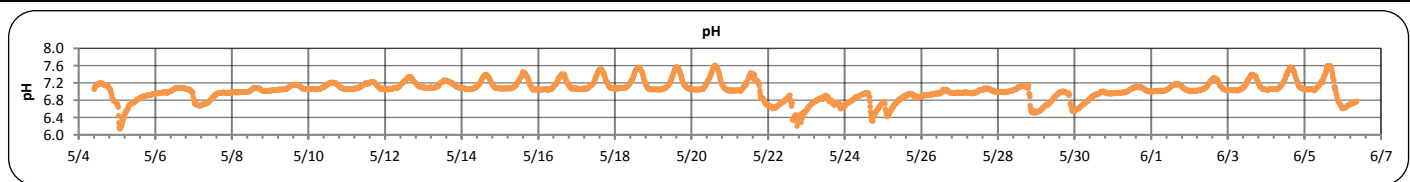
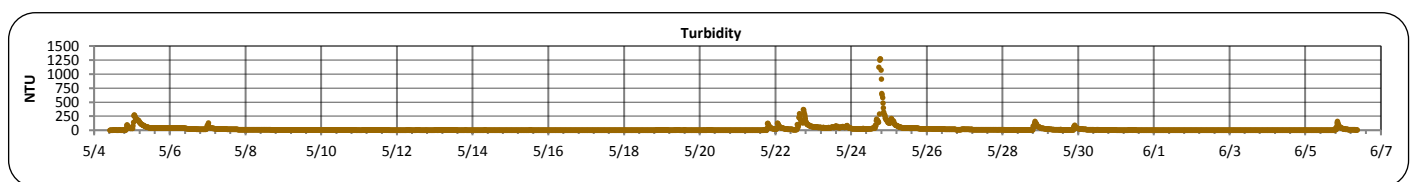
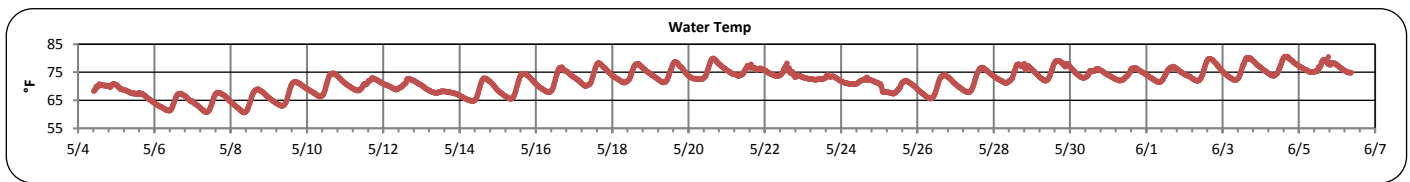
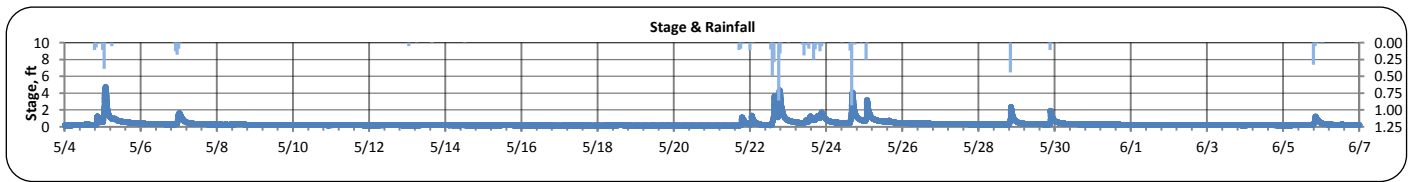
Grab Sample Data:

Analyte (units)	Sample 1		Sample 2		Sample 3		Sample 4	
	Time	Result	Time	Result	Time	Result	Time	Result
<i>Escherichia coli</i> (MPN/100mL)								
Total Suspended Solids (mg/L)								
Total Phosphorus (mg/L)								
Total Nitrogen (mg/L)								

Note:

Smith Branch B (May 4, 2017 -- June 7, 2017)

PARAMETER	DESCRIPTION	CONTINUOUS WATER QUALITY PARAMETERS:	SUMMARY STATISTICS				
			MINIMUM OBSERVED	MAXIMUM OBSERVED	MEDIAN OBSERVED	MEAN OBSERVED	STANDARD DEVIATION
STREAM NAME:	Smith Branch	STAGE (FT):	0.1	4.8	0.2	0.4	0.4
LOCATION:	Off Mountain Drive	TEMPERATURE (°F):	61	81	72	72	4
NEAREST ADDRESS:	3950 Clement Rd Columbia, SC 29203	TURBIDITY (NTU):	2	1274	6	22	64
COORDINATES:	34.037933,-81.0591	pH:	6.1	7.6	7.1	7.0	0.2
TMDL/IMPAIRMENT:	Fecal Coliform	SPECIFIC CONDUCTIVITY (mS/cm):	0.021	0.169	0.133	0.119	0.031
NEIGHBORING LANDUSE:	Residential and commercial	DISSOLVED OXYGEN (mg/L):	6.1	9.7	8.1	8.1	0.7
SPATIAL LOCATION:	Most Downstream Site						
TOTAL NO. STORMS OVER 0.1 INCH:	10						
MAX. DAILY RAINFALL:	2.0 inches						
TOTAL RAINFALL (FOR PERIOD):	7.0 inches						



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**Continuous Water Quality
Monitoring Periodic Report**

Smith Branch B (May 4, 2017 -- June 7, 2017)

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
<i>Escherichia coli</i> (MPN/100mL)								
Total Suspended Solids (mg/L)								
Total Phosphorus (mg/L)								
Total Nitrogen (mg/L)								

Note: