

Smith Branch Monitoring Sites

Data Gaps

- The Smith Branch monitoring stations were installed in early June. The sondes were deployed at these stations on June 11th. These stations did not experience any gaps in data during the abbreviated monitoring period.

SCDHEC Standards

- The SMIA and SMIB stations recorded average DO levels 6.8 and 6.7 mg/L, respectively, well above the SCDHEC daily average standard of 5 mg/L. The SMIA station did experience a minimum instantaneous DO level of 4.0 mg/L while the SMIB station recorded a minimum level of 3.1 mg/L. These low levels occurred during the early hours of June 23rd at both stations, following a small storm event on June 23rd that raised the temperature of the water to 87 °F.
- The pH standard was not violated at either of the Smith Branch monitoring sites.

Storm Events

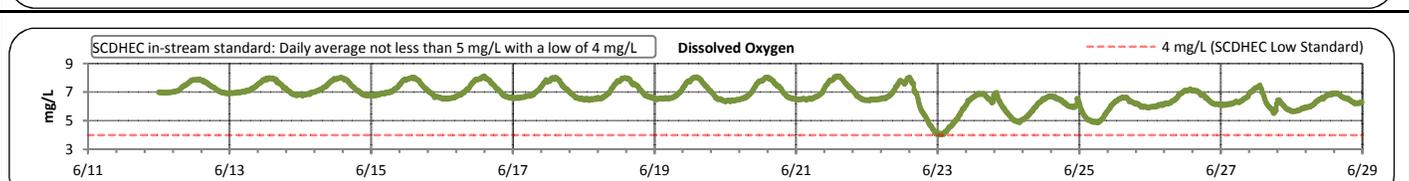
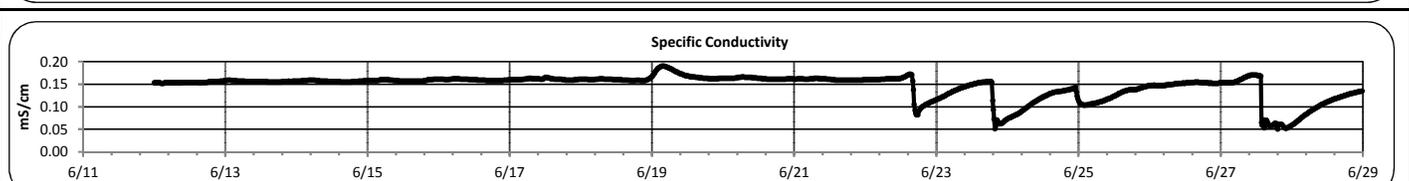
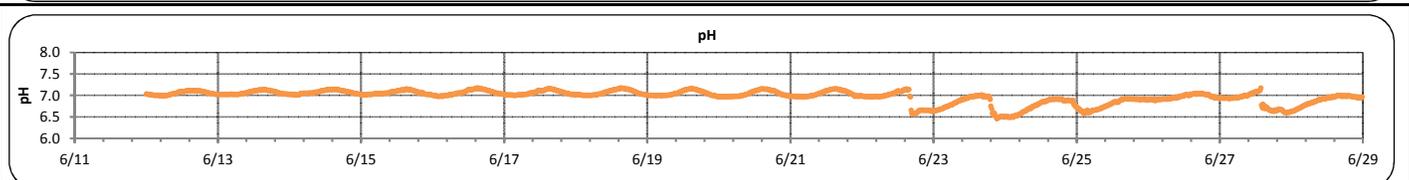
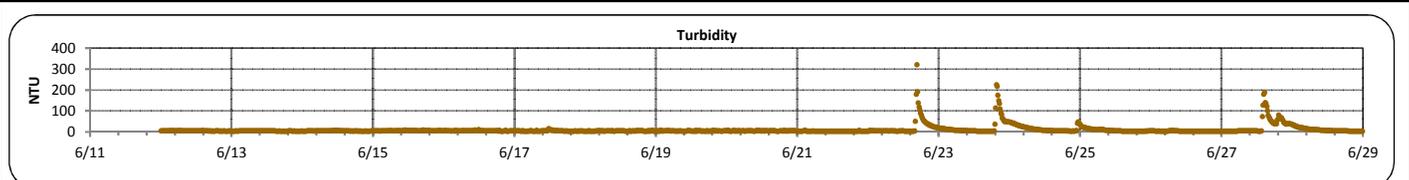
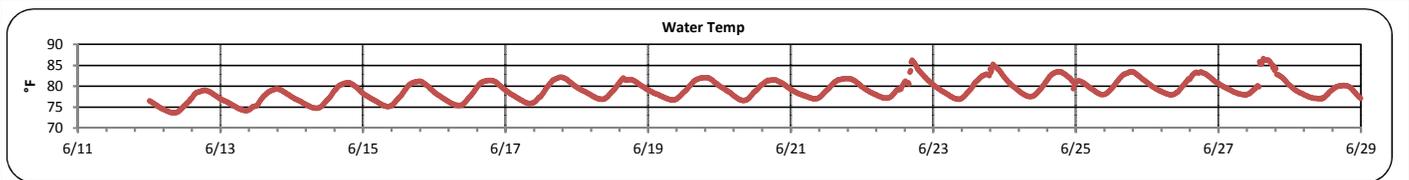
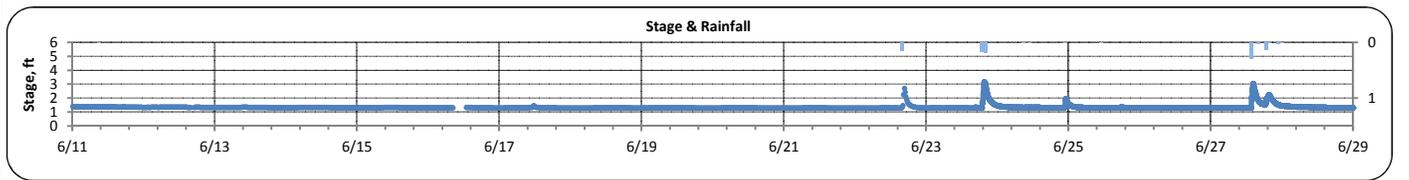
- The SMIA and SMIB rain gages recorded 1.0 inches and 0.9 inches of precipitation, respectively, during this abbreviated monitoring period. Both stations appear to exhibit fairly typical responses to storm events, with increased turbidity and decreased pH and specific conductivity levels following storms. However, the decreased DO levels following the June 23rd rain event represented a slightly abnormal storm event response. Future rain events at this station should reveal whether or not this storm response is typical of the Smith Branch watershed.

Potential Illicit Discharges and Abnormal Events

- The SMIA station recorded two potential illicit discharge events during this monitoring period:
 - On June 17th, a small event was detected which cause a very mild increase in specific conductivity, turbidity, and stage.
 - On June 19th, the specific conductivity levels in the creek experienced a long and gradual increase.
- The SMIB station also experienced two potential illicit discharge events:
 - On June 18th, a decrease in DO, pH, and temperature was noted at the monitoring station
 - From June 19th-20th, the same elevated specific conductivity event that was observed at the SMIA station was noted downstream at the SMIB station.

Smith Branch A (June 11, 2015 -- June 28, 2015)

PARAMETER	DESCRIPTION	CONTINUOUS WATER QUALITY PARAMETERS:	SUMMARY STATISTICS				
			MINIMUM OBSERVED	MAXIMUM OBSERVED	MEDIAN OBSERVED	MEAN OBSERVED	STANDARD DEVIATION
STREAM NAME:	Smith Branch	STAGE (FT):	1.3	3.2	1.3	1.4	0.2
LOCATION:	Earlewood Park	TEMPERATURE (°F):	74	87	79	79	2
ADDRESS:	1111 Parkside Dr Columbia, SC 29201	TURBIDITY (NTU):	3	321	5	10	21
COORDINATES:	34.027289,-81.04265	pH:	6.5	7.2	7.0	7.0	0.2
TMDL/IMPAIRMENT:	Fecal Coliform	SPECIFIC CONDUCTIVITY (mS/cm):	0.05	0.19	0.157	0.146	0.027
NEIGHBORING LANDUSE:	Residential and commercial	DISSOLVED OXYGEN (mg/L):	4.0	8.1	6.8	6.8	0.8
SPATIAL LOCATION:	Most upstream site						
TOTAL NO. STORMS OVER 0.1 INCH:	3						
MAX. DAILY RAINFALL:	0.5 inches						
TOTAL RAINFALL (FOR PERIOD):	1.0 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 (June 11, 2015 -- June 28, 2015)

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.

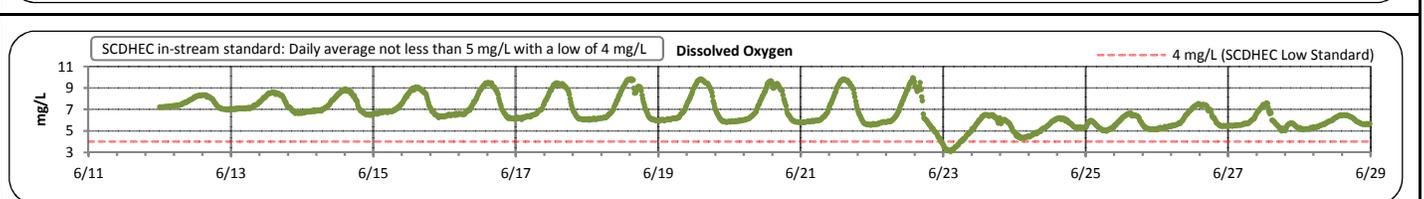
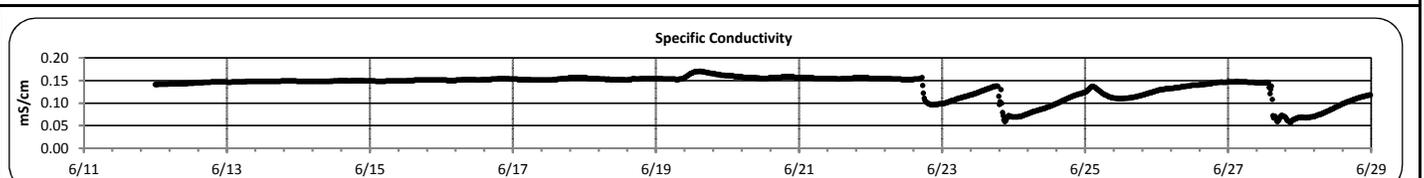
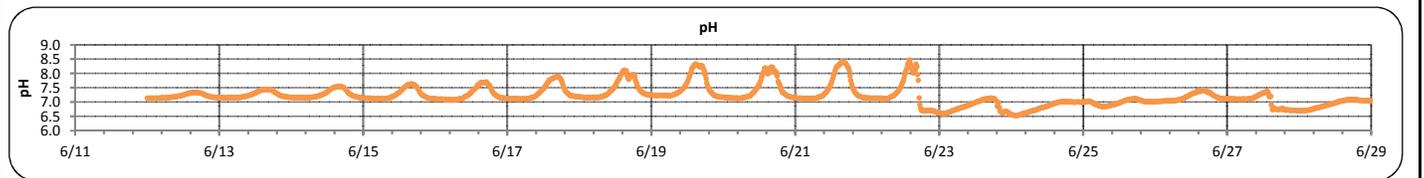
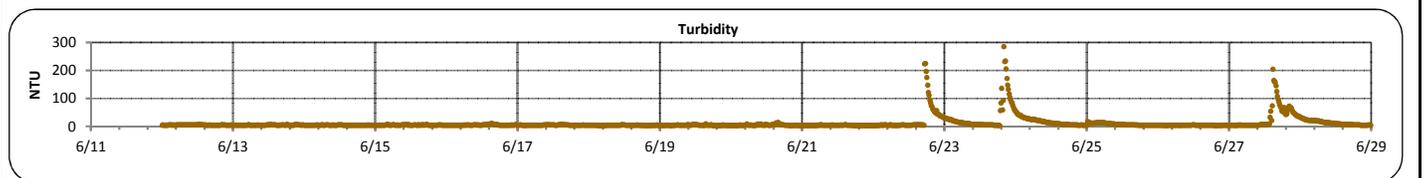
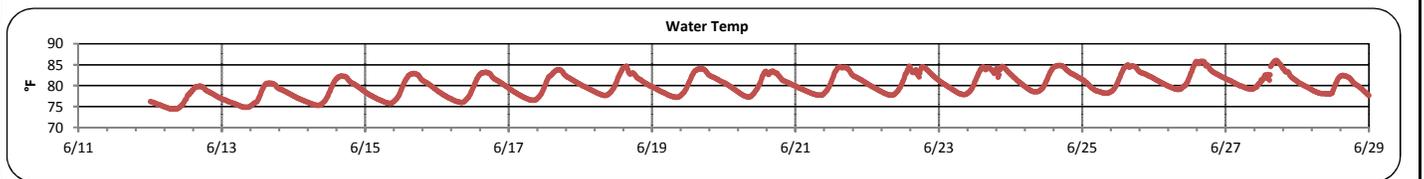
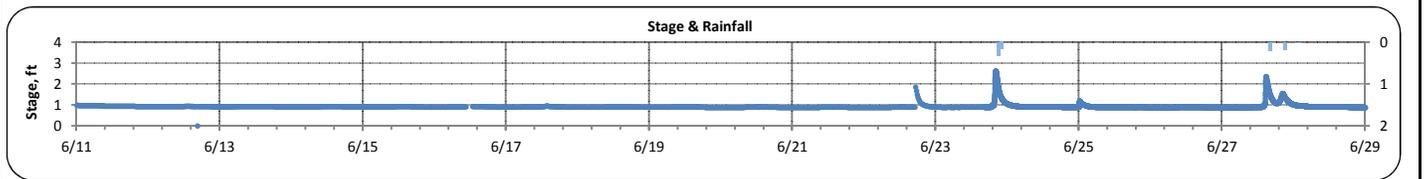
Grab Sample Data:

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 (June 11, 2015 -- June 28, 2015)

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	2.6	0.9	1.0	0.2
LOCATION:	Off Mountain Drive	TEMPERATURE (°F):	74	86	80	80	3
NEAREST ADDRESS:	3950 Clement Rd Columbia, SC 29203	TURBIDITY (NTU):	2	285	4	10	23
COORDINATES:	34.037933,-81.0591	pH:	6.6	8.5	7.2	7.2	0.3
TMDL/IMPAIRMENT:	Fecal Coliform	SPECIFIC CONDUCTIVITY (mS/cm):	0.057	0.171	0.148	0.137	0.026
NEIGHBORING LANDUSE:	Residential and commercial	DISSOLVED OXYGEN (mg/L):	3.1	10.0	6.5	6.7	1.4
SPATIAL LOCATION:	Most Downstream Site						
TOTAL NO. STORMS OVER 0.1 INCH:	3						
MAX. DAILY RAINFALL:	0.5 inches						
TOTAL RAINFALL (FOR PERIOD):	0.9 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 B (June 11, 2015 -- June 28, 2015)

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: