

# Smith Branch Monitoring Sites

## Monitoring Data Summary for June 4<sup>th</sup>, 2020 – July 19<sup>th</sup>, 2020

### *Data Gaps*

- The SMIA station experienced brief periods of fouling turbidity data from July 10<sup>th</sup>-14<sup>th</sup> and July 16<sup>th</sup>-19<sup>th</sup> so these periods of data were removed from the dataset.
- At the SMIB station, the specific conductivity probe experienced multiple days of fouling which occurred on the following dates: June 8<sup>th</sup>-9<sup>th</sup>, June 14<sup>th</sup>-19<sup>th</sup>, June 20<sup>th</sup>-22<sup>nd</sup>, July 3<sup>rd</sup>-6<sup>th</sup>, and July 17<sup>th</sup>-19<sup>th</sup>. These periods of data were removed from the dataset.

### *SCDHEC Standards*

- The SMIA and SMIB stations 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 6.7 mg/L and the SMIB station recorded an average DO concentration of 7.3 mg/L, which are both above the SCDHEC daily average standard of 5 mg/L.
- The minimum DO concentration recorded at the SMIA station was 4.0 mg/L and 4.5 mg/L at the SMIB station, which are above or equal to the SCDHEC discrete minimum standard of 4 mg/L.

### *Storm Events*

- The SMIA rain gauge recorded 11 storms (at least 0.1 inches) in this monitoring period resulting in 6.1 inches of precipitation. The SMIB rain gauge recorded 13 storms (at least 0.1 inches) resulting in 5.7 inches of precipitation.
- The SMIA and SMIB monitoring stations recorded typical water quality responses to the storm events observed during this monitoring period.

### *Potential Illicit Discharges and Abnormal Events*

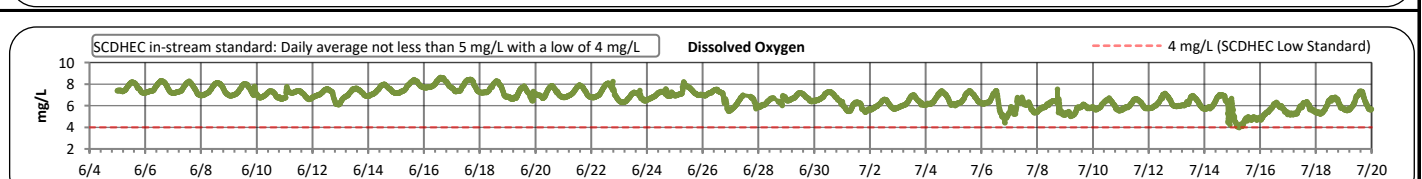
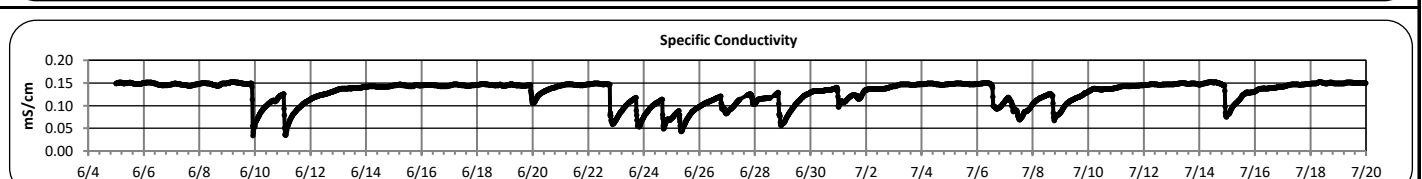
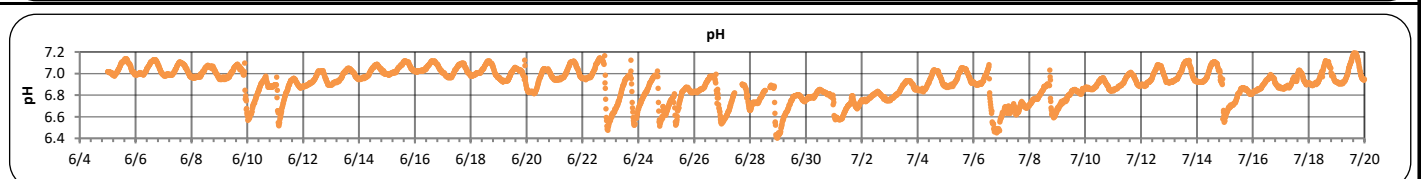
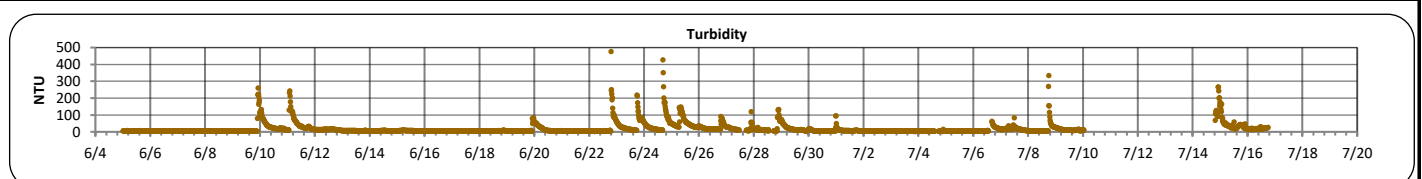
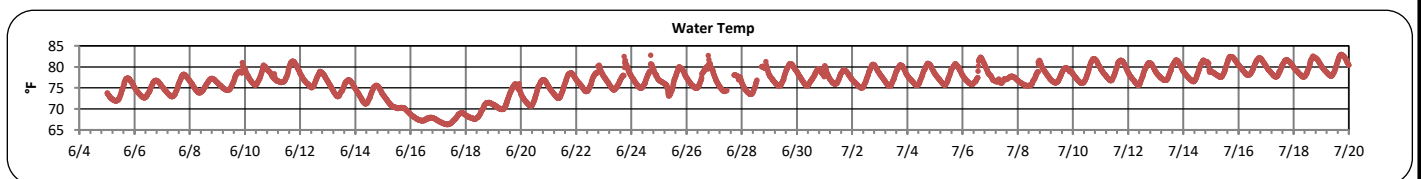
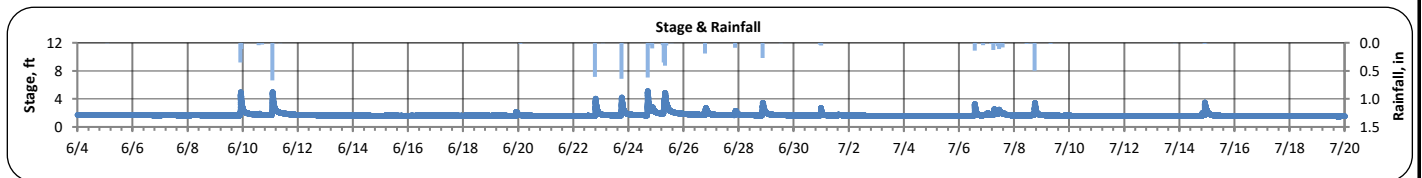
- There were no potential illicit discharges or abnormal events observed at the SMIA and SMIB stations during this monitoring period.

### *Flow Measurements*

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

**Smith Branch A (June 4, 2020 - July 19, 2020)**

PARAMETER	DESCRIPTION	CONTINUOUS WATER QUALITY PARAMETERS:	SUMMARY STATISTICS				
			MINIMUM OBSERVED	MAXIMUM OBSERVED	MEDIAN OBSERVED	MEAN OBSERVED	STANDARD DEVIATION
STREAM NAME:	Smith Branch	STAGE (FT):	1.5	5.2	1.6	1.7	0.3
LOCATION:	Earlewood Park	TEMPERATURE (°F):	66	83	77	76	3
ADDRESS:	1111 Parkside Dr Columbia, SC 29201	TURBIDITY (NTU):	3	477	7	18	32
COORDINATES:	34.027289,-81.04265	pH:	6.4	7.2	6.9	6.9	0.1
TMDL/IMPAIRMENT:	Fecal Coliform	SPECIFIC CONDUCTIVITY (mS/cm):	0.034	0.152	0.143	0.130	0.024
NEIGHBORING LANDUSE:	Residential and commercial	DISSOLVED OXYGEN (mg/L):	4.0	8.6	6.8	6.7	0.8
SPATIAL LOCATION:	Most upstream site						
TOTAL NO. STORMS OVER 0.1 INCH:	11						
MAX. DAILY RAINFALL:	0.9 inches						
TOTAL RAINFALL (FOR PERIOD):	6.1 inches						



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

REPORT GENERATED ON 03/08/2021

**Continuous Water Quality  
Monitoring Periodic Report**

**Smith Branch A (June 4, 2020 - July 19, 2020)**

**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.

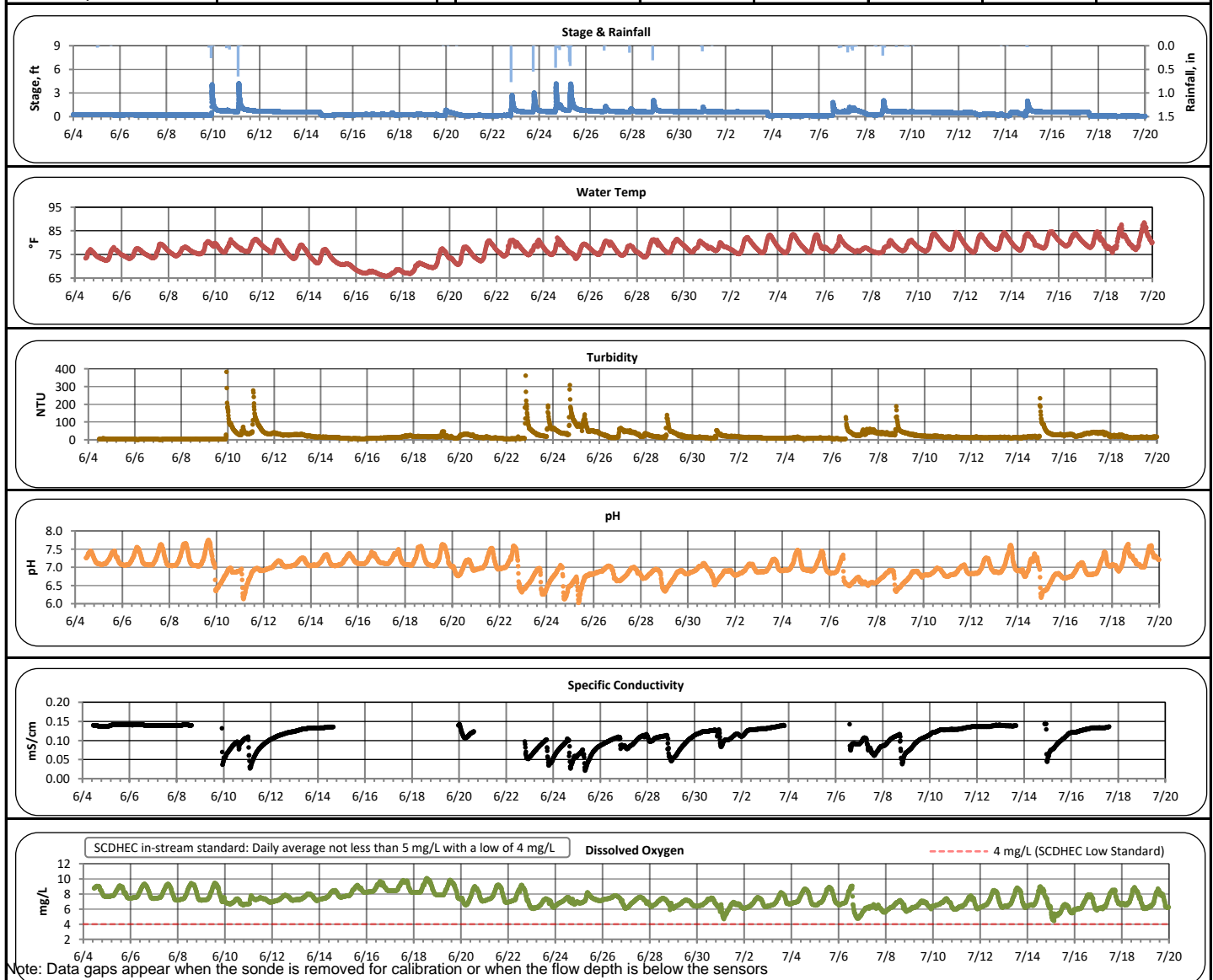
**Grab Sample Data:**

Analyte (units)	Sample 1		Sample 2		Sample 3		Sample 4		Sample 5	
	6/22/2020									
	Time	Result	Time	Result	Time	Result	Time	Result	Time	Result
<i>Escherichia coli</i> (MPN/100mL)	12:39	374								
Total Suspended Solids (mg/L)	12:39	1.6								
Total Phosphorus (mg/L)										
Total Nitrogen (mg/L)										

Note: All samples were collected during dry weather conditions.

Smith Branch B (June 4, 2020 - July 19, 2020)

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	4.2	0.5	0.5	0.4
LOCATION:	Off Mountain Drive	TEMPERATURE (°F):	66	89	77	77	4
NEAREST ADDRESS:	3950 Clement Rd Columbia, SC 29203	TURBIDITY (NTU):	3	384	17	25	28
COORDINATES:	34.037933,-81.0591	pH:	6.0	7.8	7.0	7.0	0.3
TMDL/IMPAIRMENT:	Fecal Coliform	SPECIFIC CONDUCTIVITY (mS/cm):	0.022	0.144	0.116	0.110	0.028
NEIGHBORING LANDUSE:	Residential and commercial	DISSOLVED OXYGEN (mg/L):	4.5	10.1	7.2	7.3	1.0
SPATIAL LOCATION:	Most Downstream Site						
TOTAL NO. STORMS OVER 0.1 INCH:	13						
MAX. DAILY RAINFALL:	0.9 inches						
TOTAL RAINFALL (FOR PERIOD):	5.7 inches						



**Continuous Water Quality  
Monitoring Periodic Report**

**Smith Branch B (June 4, 2020 - July 19, 2020)**

**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:**

No samples taken at SMIB during this monitoring period.