

# Smith Branch Monitoring Sites

## Monitoring Data Summary for February 18<sup>th</sup>, 2021 – March 23<sup>rd</sup>, 2021

### *Data Gaps*

- The SMIA station experienced brief intermittent data gaps lasting a few hours at a time for all sensors throughout the monitoring period. This was due to a faulty battery and power regulator that were replaced at the end of the monitoring period. The SMIA station experienced a period of fouling turbidity data from March 14<sup>th</sup>-16<sup>th</sup> and March 17<sup>th</sup>-19<sup>th</sup>, so those periods of data were removed from the dataset.
- The SMIB station experienced a period of fouling turbidity data from March 9<sup>th</sup> to March 11<sup>th</sup>, so that period of data was removed from the dataset.

### *SCDHEC Standards*

- The SMIA and SMIB stations did not record any pH values outside the acceptable SCDHEC range of 6 to 8.5.
- The SMIA station recorded an average DO concentration of 9.7 mg/L and the SMIB station recorded an average DO concentration of 10.2 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 8.3 mg/L and 8.5 mg/L at the SMIB station, which are above the SCDHEC discrete minimum standard of 4 mg/L.

### *Storm Events*

- The SMIA rain gauge recorded 5 storms (at least 0.1 inches) in this monitoring period resulting in 3.5 inches of precipitation. The SMIB rain gauge recorded 6 storms (at least 0.1 inches) in this monitoring period resulting in 3.4 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*

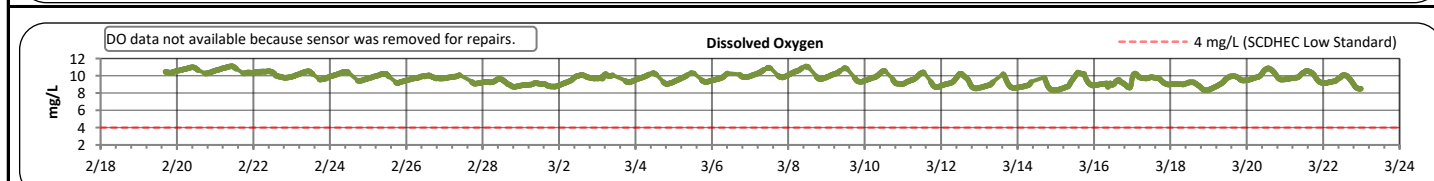
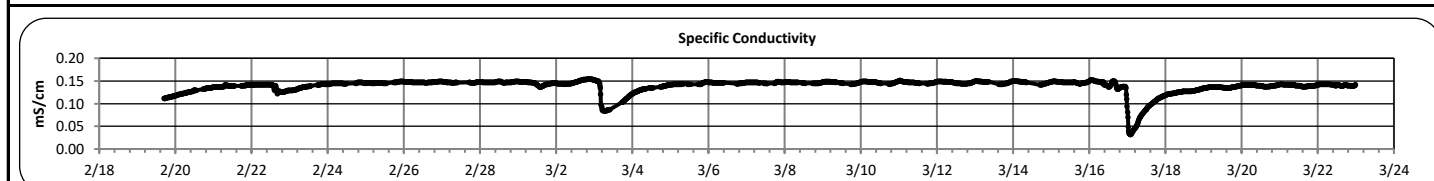
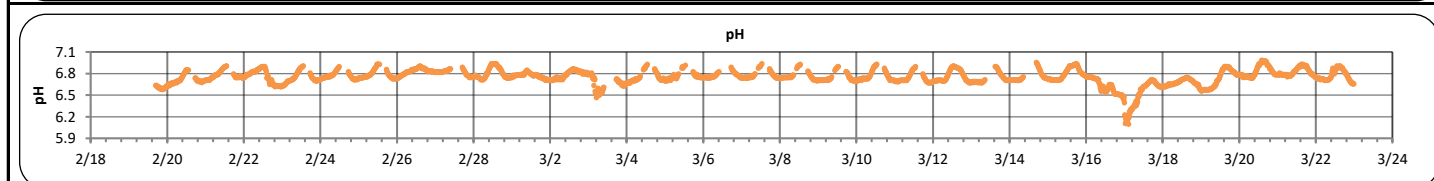
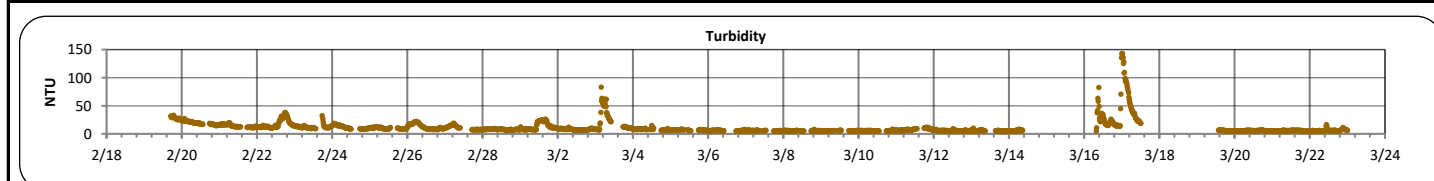
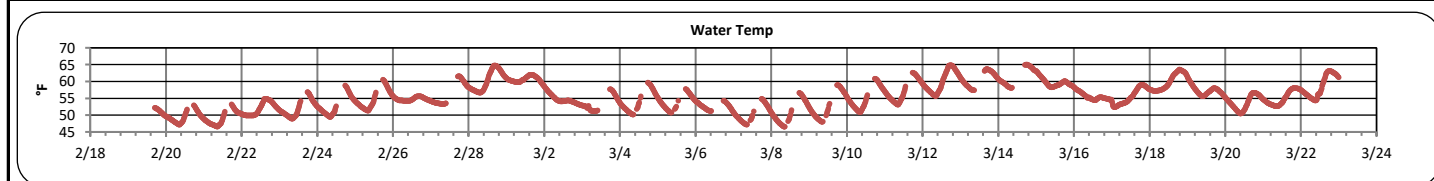
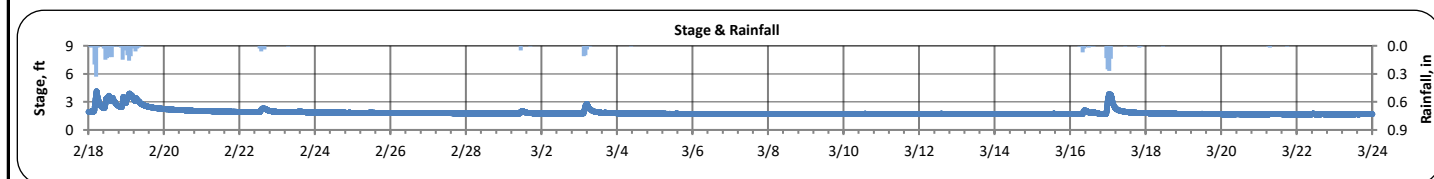
- At the SMIA and SMIB stations, there were no abnormal events during this monitoring period.

### *Flow Measurements*

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

Smith Branch A (February 18, 2021 - March 23, 2021)

PARAMETER	DESCRIPTION	CONTINUOUS WATER QUALITY PARAMETERS:	SUMMARY STATISTICS				
			MINIMUM OBSERVED	MAXIMUM OBSERVED	MEDIAN OBSERVED	MEAN OBSERVED	STANDARD DEVIATION
STREAM NAME:	Smith Branch	STAGE (FT):	1.7	4.2	1.8	1.9	0.3
LOCATION:	Earlewood Park	TEMPERATURE (°F):	47	65	55	55	4
ADDRESS:	1111 Parkside Dr Columbia, SC 29201	TURBIDITY (NTU):	4	143	8	12	12
COORDINATES:	34.027289,-81.04265	pH:	6.1	7.0	6.8	6.8	0.1
TMDL/IMPAIRMENT:	Fecal Coliform	SPECIFIC CONDUCTIVITY (mS/cm):	0.032	0.154	0.144	0.139	0.016
NEIGHBORING LANDUSE:	Residential and commercial	DISSOLVED OXYGEN (mg/L):	8.3	11.1	9.7	9.7	0.6
SPATIAL LOCATION:	Most upstream site						
TOTAL NO. STORMS OVER 0.1 INCH:	5						
MAX. DAILY RAINFALL:	1.4 inches						
TOTAL RAINFALL (FOR PERIOD):	3.5 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 (February 18, 2021 - March 23, 2021)**

**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.

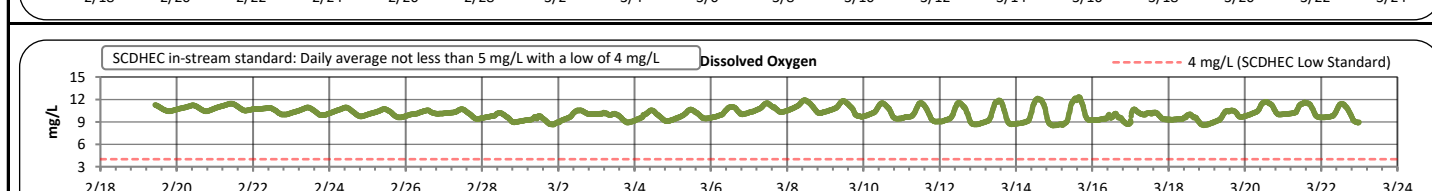
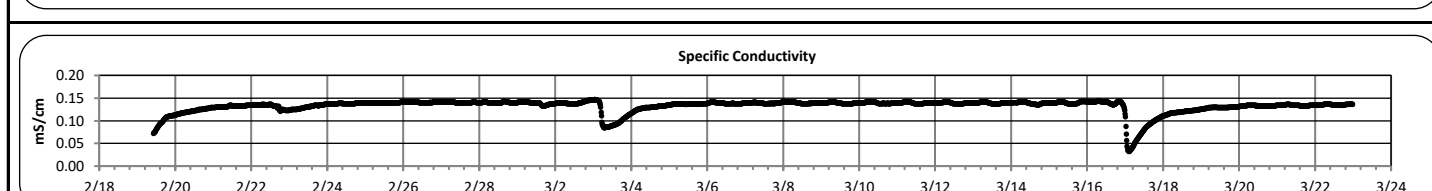
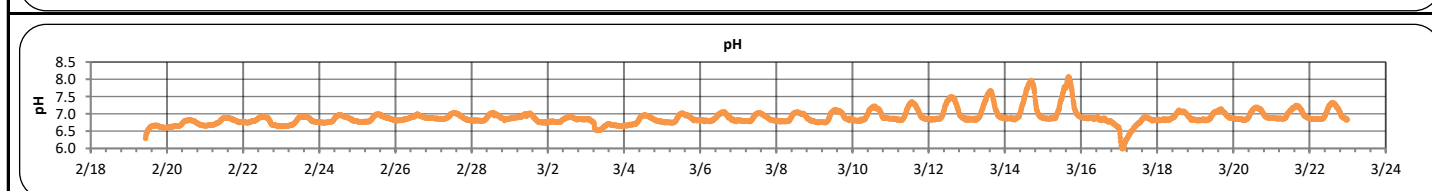
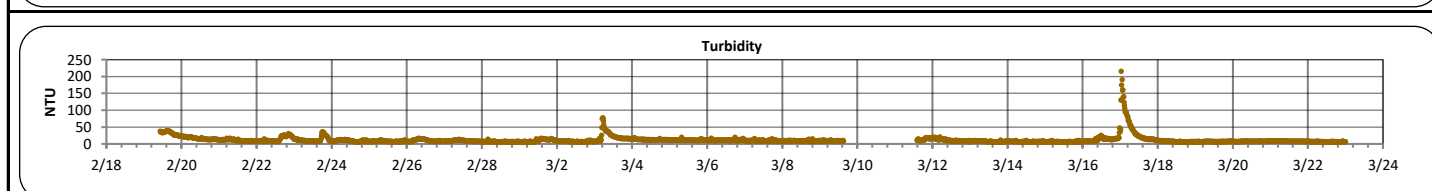
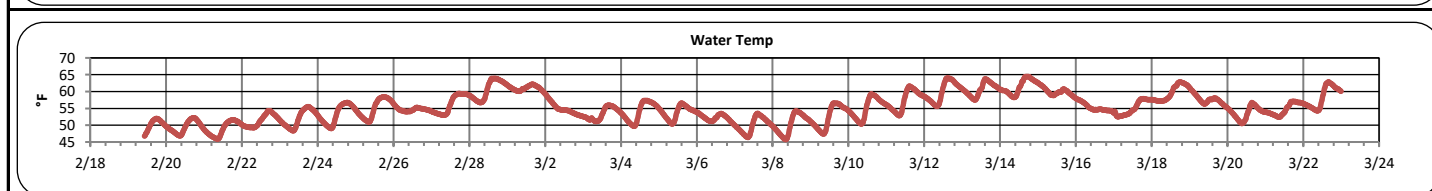
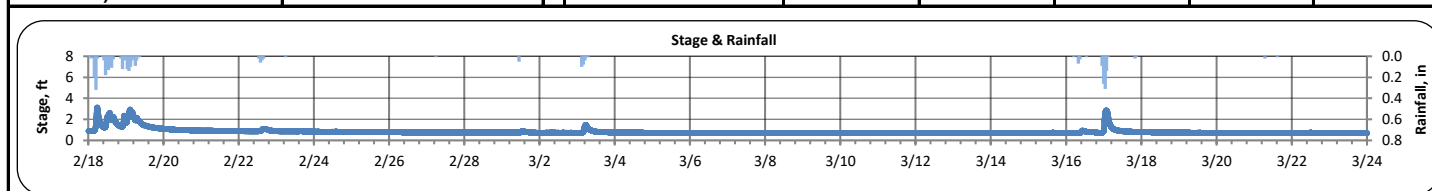
**Sampled Data:**

Analyte (units)	Sample 1		Sample 2		Sample 3		Sample 4	
	2/22/2021		3/22/2021					
	Time	Results	Time	Results	Time	Results	Time	Results
<i>Escherichia coli</i> (MPN/100mL)	9:30	104	10:07	654				
Total Suspended Solids (mg/L)	9:30	1.5	10:07	6				
Total Phosphorus (mg/L)								
Total Nitrogen (mg/L)								

Notes: Samples 1 and 2 were collected during dry weather conditions.

Smith Branch B (February 18, 2021 - March 23, 2021)

PARAMETER	DESCRIPTION	CONTINUOUS WATER QUALITY PARAMETERS:	SUMMARY STATISTICS				
			MINIMUM OBSERVED	MAXIMUM OBSERVED	MEDIAN OBSERVED	MEAN OBSERVED	STANDARD DEVIATION
STREAM NAME:	Smith Branch	STAGE (FT):	0.7	3.2	0.7	0.8	0.3
LOCATION:	Off Mountain Drive	TEMPERATURE (°F):	46	65	55	55	4
NEAREST ADDRESS:	3950 Clement Rd Columbia, SC 29203	TURBIDITY (NTU):	6	216	9	12	12
COORDINATES:	34.037933,-81.0591	pH:	6.0	8.1	6.9	6.9	0.2
TMDL/IMPAIRMENT:	Fecal Coliform	SPECIFIC CONDUCTIVITY (mS/cm):	0.033	0.147	0.138	0.133	0.015
NEIGHBORING LANDUSE:	Residential and commercial	DISSOLVED OXYGEN (mg/L):	8.5	12.4	10.2	10.2	0.8
SPATIAL LOCATION:	Most Downstream Site						
TOTAL NO. STORMS OVER 0.1 INCH:	6						
MAX. DAILY RAINFALL:	1.4 inches						
TOTAL RAINFALL (FOR PERIOD):	3.4 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 (February 18, 2021 - March 23, 2021)**

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

Notes: No samples were collected during this monitoring period.