Smith Branch Monitoring Sites Monitoring Data Summary for June 4th, 2020 – July 19th, 2020

Data Gaps

- The SMIA station experienced brief periods of fouling turbidity data from July 10th-14th and July 16th-19th 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 8th-9th, June 14th-19th, June 20th-22nd, July 3rd-6th, and July 17th-19th. 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.



Continuous Water Quality Monitoring Periodic Report



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

		CONTINUOUS		sur	MMARY STATIS	TICS	
PARAMETER	DESCRIPTION	WATER QUALITY PARAMETERS:	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						
ADDRESS:	1111 Parkside Dr Columbia, SC 29201	TEMPERATURE (°F):	66	83	77	76	3
COORDINATES:	34.027289,-81.04265	TURBIDITY (NTU):	3	477	7	18	32
TMDL/IMPAIRMENT:	Fecal Coliform						
NEIGHBORING LANDUSE:	Residential and commercial	pH:	6.4	7.2	6.9	6.9	0.1
SPATIAL LOCATION:	Most upstream site						
TOTAL NO. STORMS OVER 0.1 INCH:	11	SPECIFIC CONDUCTIVITY (mS/cm):	0.034	0.152	0.143	0.130	0.024
MAX. DAILY RAINFALL:	0.9 inches	DISSOLVED					
TOTAL RAINFALL (FOR PERIOD):	6.1 inches	OXYGEN (mg/L):	4.0	8.6	6.8	6.7	0.8
	<u>'</u>	Stage & Rain	fall	-	*	-	-
12 8 8 9 4 0 6/4 6/6 6/8 6/8	10 6/12 6/14 6/16 6/18 6/	20 6/22 6/24 6/26 6/2	28 6/30 7/2	7/4 7/6	7/8 7/10 7/12	7/14 7/16 7	0.0 0.5 1.0 1.5 7/18 7/20
70 65 6/4 6/6 6/8 6/	10 6/12 6/14 6/16 6/18 6,	/20 6/22 6/24 6/26 6/.		7/4 7/6	7/10 7/12	7/14 7/16	7/18 7/20
100	6/10 6/12 6/14 6/16 6/18		5/28 6/30 7/2	7/4 7/6	7/8 7/10 7/1	2 7/14 7/16	7/18 7/20
7.2 7.0 4 6.8 6.6 6.4 6/4 6/6 6/8 6/	10 6/12 6/14 6/16 6/18 6	pH 5/20 6/22 6/24 6/26 6	/28 6/30 7/2	7/4 7/6	7/8 7/10 7/1	12 7/14 7/16	7/18 7/20
		Specific Cond	ductivity				
8 0.20 0.15 0.10 0.05 0.00 6/4 6/6 6/8 6	6/10 6/12 6/14 6/16 6/18	6/20 6/22 6/24 6/26	5/28 6/30 7/2	2 7/4 7/6	7/8 7/10 7/5	12 7/14 7/16	7/18 7/20
10 8 8	dard: Daily average not less than 5 mg/L w	rith a low of 4 mg/L Dissolve	d Oxygen		Non	4 mg/L (SCDHEC	Low Standard)
2	5/10 6/12 6/14 6/16 6/18	6/20 6/22 6/24 6/26	6/28 6/30 7/	2 7/4 7/6	7/8 7/10 7/	/12 7/14 7/16	7/18 7/20

Continuous Water Quality Monitoring Periodic Report

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

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:

Analyto	Sample 1		Sample 2		Sample 3		Sample 4		Sample 5	
Analyte (units)	6/22/2020									
(units)	Time	Result	Time	Result	Time	Result	Time	Result	Time	Result
Escherichia coli (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.



Continuous Water Quality Monitoring Periodic Report



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

		CONTINUOUS		SUMMARY STATISTICS					
PARAMETER	DESCRIPTION WATER QUAL PARAMETERS		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								
NEAREST ADDRESS:	3950 Clement Rd Columbia, SC 29203	TEMPERATURE (°F):	66	89	77	77	4		
COORDINATES:	34.037933,-81.0591	TURBIDITY (NTU):	3	384	17	25	28		
TMDL/IMPAIRMENT:	Fecal Coliform	TORBIBITT (RTO).		304	17	20	20		
NEIGHBORING LANDUSE:	Residential and commercial	pH:	6.0	7.8	7.0	7.0	0.3		
SPATIAL LOCATION:	Most Downstream Site								
TOTAL NO. STORMS OVER 0.1 INCH:	13	SPECIFIC CONDUCTIVITY (mS/cm):	0.022	0.144	0.116	0.110	0.028		
MAX. DAILY RAINFALL: TOTAL RAINFALL (FOR	0.9 inches	DISSOLVED OXYGEN (mg/L):	4.5	10.1	7.2	7.3	1.0		
PERIOD):				l		l			
Stage & Rainfall 0.0 E Figure 2 0.0 6/4 6/6 6/8 6/10 6/12 6/14 6/16 6/18 6/20 6/22 6/24 6/26 6/28 6/30 7/2 7/4 7/6 7/8 7/10 7/12 7/14 7/16 7/18 7/20 Water Temp									
85 75 65 6/4 6/6 6/8 6/	10 6/12 6/14 6/16 6/18 6	/20 6/22 6/24 6/26 6/2	28 6/30 7/2	7/4 7/6 7	7/8 7/10 7/12	7/14 7/16	7/18 7/20		
200 100 6/4 6/6 6/8	6/10 6/12 6/14 6/16 6/18	6/20 6/22 6/24 6/26 6	/28 6/30 7/2	7/4 7/6	7/8 7/10 7/12	2 7/14 7/16	7/18 7/20		
8.0 7.5 7.0 6.5 6.0 6/4 6/6 6/8 6/	10 6/12 6/14 6/16 6/18	pH 5/20 6/22 6/24 6/26 6/	28 6/30 7/2	7/4 7/6	7/8 7/10 7/12	2 7/14 7/16	7/18 7/20		
0.20 0.15 0.10 0.05 0.00 6/4 6/6 6/8 6	5/10 6/12 6/14 6/16 6/18	Specific Cond	v	7/4 7/6	7/8 7/10 7/2	12 7/14 7/16	7/18 7/20		
12 10 8 8 6 4 2	ndard: Daily average not less than 5 mg/L 5/10 6/12 6/14 6/16 6/18 the sonde is removed for calibrat	MM	ww	2 7/4 7/6 ors	7/8 7/10 7/	4 mg/L (SCDHEC L	7/18 7/20		

Continuous Water Quality Monitoring Periodic Report

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

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:

No samples taken at SMIB during this monitoring period.