Smith Branch Monitoring Sites

Monitoring Data Summary for October 3rd, 2019 – November 6th, 2019

Data Gaps

- The SMIA station did not experience any interruptions in the data record.
- The SMIB sonde was not in the field for this entire monitoring period due to low stage in the creek, therefore there is no water quality data record from October 3rd-November 6th.

SCDHEC Standards

- The SMIA station 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 7.8 mg/L, which is above the SCDHEC daily average standard of 5 mg/L.
- The minimum DO concentration recorded at the SMIA station was 6 mg/L, which is above the SCDHEC discrete minimum standard of 4 mg/L.

Storm Events

- The SMIA rain gauge recorded 6 storms (at least 0.1 inches) in this monitoring period resulting in 2.8 inches of precipitation. The SMIB rain gauge recorded 7 storms (at least 0.1 inches) resulting in 2.7 inches of precipitation.
- The SMIA monitoring station 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 inch) was approximately 12.7 days in the Smith Branch watershed, occurring prior to the October 13th storm event.

Potential Illicit Discharges and Abnormal Events

• There were no potential illicit discharges or abnormal events observed at the SMIA station 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 (October 3, 2019 - November 6, 2019)

		CONTINUOUS	SUMMARY STATISTICS					
PARAMETER	DESCRIPTION	WATER QUALITY PARAMETERS:	MINIMUM OBSERVED	MAXIMUM OBSERVED	MEDIAN OBSERVED	MEAN OBSERVED	STANDARD DEVIATION	
STREAM NAME:	Smith Branch	STAGE (FT):	0.9	3.6	1.6	1.7	0.3	
LOCATION:	Earlewood Park	TEMPERATURE						
ADDRESS:	1111 Parkside Dr Columbia, SC 29201	(°F):	54	80	69	68	5	
COORDINATES:	34.027289,-81.04265	TURRIDITY (NTU).		570		40	0.5	
TMDL/IMPAIRMENT:	Fecal Coliform	TURBIDITY (NTU):	2	573	6	13	25	
NEIGHBORING LANDUSE:	Residential and commercial	pH:	6.5	7.3	7.0	7.0	0.1	
SPATIAL LOCATION:	Most upstream site		0.0					
TOTAL NO. STORMS OVER 0.1 INCH:	6	SPECIFIC CONDUCTIVITY (mS/cm):	0.032	0.230	0.154	0.149	0.034	
MAX. DAILY RAINFALL:	0.9 inches	DISSOLVED						
TOTAL RAINFALL (FOR PERIOD):	2.8 inches	OXYGEN (mg/L):	6.0	9.8	7.7	7.8	0.7	
7		Stage & Rain	nfall				0.00	
Stage, #	<u> </u>	1 14		- T			0.25	
							0.50	
10/3 10/5 10/7	10/9 10/11 10/13	10/15 10/17 10/19 1	0/21 10/23	10/25 10/27	10/29 10/31	11/2 11/	4 11/6	
# 70 60	~~~							
P 400 10/3 10/5 10/7		10/15 10/17 10/19 : Turbidi	10/21 10/23	10/25 10/27	10/29 10/31		1/4 11/6	
10/3 10/5 10/7 600 400 200 10/3 10/5 10		Turbidi	ty					
10/3 10/5 10/7 10/3 10/5 10/7	/7 10/9 10/11 10/13	10/15 10/17 10/19	ty			31 11/2 1:		
10/3 10/5 10/7 600 200 10/3 10/5 10 7.5 7.2 6.9 6.6 6.3 10/3 10/5 10/7	/7 10/9 10/11 10/13	10/15 10/17 10/19	10/21 10/23 10/21 10/23	10/25 10/27	10/29 10/3	31 11/2 1:	1/4 11/6	
10/3 10/5 10/7 600 400 200 10/3 10/5 10 7.5 4.6.9 6.6 6.3 10/3 10/5 10/7	/7 10/9 10/11 10/13	Turbidi 10/15 10/17 10/19 pH 10/15 10/17 10/19	10/21 10/23 10/21 10/23	10/25 10/27	10/29 10/3	31 11/2 1:	1/4 11/6	
10/3 10/5 10/7 600 200 10/3 10/5 10 7.5 7.2 6.9 6.6 6.3 10/3 10/5 10/7	/7 10/9 10/11 10/13	Turbidi 10/15 10/17 10/19 pH 10/15 10/17 10/19	10/21 10/23 10/21 10/23	10/25 10/27	10/29 10/3	31 11/2 1:	1/4 11/6	
10/3 10/5 10/7 10/3 10/5 10/7 10/3 10/5 10/7 10/3 10/5 10/7	/7 10/9 10/11 10/13 10/9 10/11 10/13	Turbidi 10/15 10/17 10/19 pH 10/15 10/17 10/19	10/21 10/23 10/21 10/23	10/25 10/27	10/29 10/3	31 11/2 1	1/4 11/6	
10/3 10/5 10/7 10/3 10/5 10/7 10/3 10/5 10/7 10/3 10/5 10/7 10/3 10/5 10/7	/7 10/9 10/11 10/13 10/9 10/11 10/13	Turbidi 10/15 10/17 10/19 pH 10/15 10/17 10/19	10/21 10/23 10/21 10/23	10/25 10/27	10/29 10/3	31 11/2 1	1/4 11/6	
10/3 10/5 10/7 10/3 10/5 10/7 10/3 10/5 10/7 10/3 10/5 10/7 10/3 10/5 10/7 10/3 10/5 10/7	/7 10/9 10/11 10/13 10/9 10/11 10/13	Turbidi 10/15 10/17 10/19 pH 10/15 10/17 10/19 Specific Cor	10/21 10/23 10/21 10/23	10/25 10/27	10/29 10/3	31 11/2 1	11/4 11/6	
10/3 10/5 10/7 10/3 10/5 10/7 10/3 10/5 10/7 10/3 10/5 10/7 10/3 10/5 10/7 11 SCDHEC in-stream stan	7 10/9 10/11 10/13	Turbidi 10/15 10/17 10/19 pH 10/15 10/17 10/19 Specific Cor	10/21 10/23 10/21 10/23 10/21 10/23	10/25 10/27	10/29 10/3	31 11/2 1	11/4 11/6	

Continuous Water Quality Monitoring Periodic Report

Smith Branch A (October 3, 2019 - November 6, 2019)

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	
	10/16/2019		10/16/2019					
(units)	Time	Result	Time	Result	Time	Result	Time	Result
Escherichia coli (MPN/100mL)	8:36	10340	9:10	18,420				
Total Suspended Solids (mg/L)	8:36	17.7	9:10	46.2				
Total Phosphorus (mg/L)	8:36	0.12	9:10	0.18				
Total Nitrogen (mg/L)	8:36	1.22	9:10	1.75				

Note: Samples 1 and 2 were taken during wet weather conditions.



Continuous Water Quality Monitoring Periodic Report



Smith Branch B (October 3, 2019 - November 6, 2019)

	CONTINUOUS		SUMMARY STATISTICS					
PARAMETER	DESCRIPTION	WATER QUALITY PARAMETERS:	MINIMUM OBSERVED	MAXIMUM OBSERVED	MEDIAN OBSERVED	MEAN OBSERVED	STANDARD DEVIATION	
STREAM NAME:	Smith Branch	STAGE (FT):	0.01	2.3	0.1	0.2	0.2	
LOCATION:	Off Mountain Drive							
NEAREST ADDRESS:	3950 Clement Rd Columbia, SC 29203	TEMPERATURE (°F):	N/A	N/A	N/A	N/A	N/A	
COORDINATES:	34.037933,-81.0591	TURRIDITY (MTU).	NI/A	NI/A	NI/A	NI/A	NI/A	
TMDL/IMPAIRMENT:	Fecal Coliform	TURBIDITY (NTU):	N/A	N/A	N/A	N/A	N/A	
NEIGHBORING LANDUSE:	Residential and commercial	nu.	N/A	NI/A	N/A	N/A	NI/A	
SPATIAL LOCATION:	Most Downstream Site	- pH:	IN/A	N/A	N/A	IN/A	N/A	
TOTAL NO. STORMS OVER 0.1 INCH:	7	SPECIFIC CONDUCTIVITY (mS/cm):	N/A	N/A	N/A	N/A	N/A	
MAX. DAILY RAINFALL:	0.8 inches	DISSOLVED OXYGEN	N1/A	N//0	11/4	N//0	N//A	
TOTAL RAINFALL (FOR PERIOD):	2.7 inches	(mg/L):	N/A	N/A	N/A	N/A	N/A	
		Stage & Raint	all	•		•		
# 2		14					0.0	
Stage, T							0.5	
10/3 10/5 10/7	10/9 10/11 10/13	10/15 10/17 10/19 10	/21 10/23	10/25 10/27	10/29 10/31	11/2 11/-		
90		Water Ten	ıp					
<u>"</u> 80								
70								
10/3 10/5 10/7	10/9 10/11 10/13	10/15 10/17 10/19 1	0/21 10/23	10/25 10/27	10/29 10/31	. 11/2 11	/4 11/6	
		Turbidity	r				-	
20 20 10 10 10 10 10 10 10 10 10 10 10 10 10								
Z 10								
10/3 10/5 10	/7 10/9 10/11 10/13	10/15 10/17 10/19	10/21 10/23	10/25 10/27	10/29 10/3	1 11/2 1	1/4 11/6	
		рН						
9.0 8.5 8.0								
7.5 7.0								
6.5 10/3 10/5 10/7	10/9 10/11 10/13	10/15 10/17 10/19	10/21 10/23	10/25 10/27	10/29 10/3	1 11/2 1	1/4 11/6	
0.16		Specific Con	ductivity					
5 0.14 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12								
0.10	7 10/9 10/11 10/12	10/15 10/17 10/19	10/21 10/22	10/25 10/27	10/20 10/	21 11/2	11/4 11/6	
10/3 10/5 10/	7 10/9 10/11 10/13	10/15 10/17 10/19	10/21 10/23	10/25 10/27	10/29 10/	31 11/2	11/4 11/6	
	ndard: Daily average not less than 5 mg	/L with a low of 4 mg/L Dissolved	Oxygen			4 mg/L (SCDHEC L	ow Standard)	
11								
11 9 7 9 7 7 9 7 9 7 9 9 9 9 9 9 9 9 9 9								
11 9	7 10/9 10/11 10/13	10/15 10/17 10/19	10/21 10/23	10/25 10/27	10/29 10,	/31 11/2	11/4 11/6	

Continuous Water Quality Monitoring Periodic Report

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Explanation of Statistics:

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STANDARD DEVIATION	The standard deviation of all the values recorded by the datasonde in 15 minute intervals.

Sampled Data:

Analyto	Sample 1		Sample 2		Sample 3		Sample 4	
Analyte (units)	10/16/2019		10/16/2019					
(units)	Time	Result	Time	Result	Time	Result	Time	Result
Escherichia coli (MPN/100mL)	8:52	3,720	10:12	7746				
Total Suspended Solids (mg/L)	8:52	11.3	10:12	43.4				
Total Phosphorus (mg/L)	8:52	0.1	10:12	0.17				
Total Nitrogen (mg/L)	8:52	1.56	10:12	1.66				

Note: Samples 1 and 2 were taken during wet weather conditions.