Smith Branch Monitoring Sites

Monitoring Data Summary for August 27th, 2020 – September 24th, 2020

Data Gaps

- The SMIA station experienced a brief period of fouling turbidity data from September 4th-7th so that period of data was removed from the dataset. The station experienced brief gaps in reporting on August 29th and September 15th which affected all the sonde sensors.
- The SMIB station experienced issues with the power regulator and did not report any sonde data from September 7th to the end of this monitoring period. No DO data was available for this reporting period because the sensor was out of commission due to repairs.

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 6.6 mg/L, which was above the SCDHEC daily average standard of 5 mg/L.
- The minimum DO concentration recorded at the SMIA station was 4.8 mg/L, which was above the SCDHEC discrete minimum standard of 4 mg/L.

Storm Events

- The SMIA rain gauge recorded 4 storms (at least 0.1 inches) in this monitoring period resulting in 3.5 inches of precipitation. The SMIB rain gauge data was not available due to the power regulator issues at the site.
- The SMIA monitoring station 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 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 (August 27, 2020 - September 24, 2020)

		CONTINUOUS	SUMMARY STATISTICS					
PARAMETER	DESCRIPTION	WATER QUALITY PARAMETERS:	MINIMUM OBSERVED	MAXIMUM OBSERVED	MEDIAN OBSERVED	MEAN OBSERVED	STANDARD DEVIATION	
STREAM NAME:	Smith Branch	STAGE (FT):	1.5	5.9	1.5	1.6	0.4	
LOCATION:	Earlewood Park							
ADDRESS:	1111 Parkside Dr Columbia, SC 29201	TEMPERATURE (°F):	70	82	78	77	3	
COORDINATES:	34.027289,-81.04265	TURBIDITY (NTU):	2	248	4	12	23	
TMDL/IMPAIRMENT:	Fecal Coliform	TONBIBITT (NTO).	2	240	7	12	25	
NEIGHBORING LANDUSE:	Residential and commercial	pH:	6.1	7.2	6.8	6.8	0.2	
SPATIAL LOCATION:	Most upstream site	pri.	0.1	1.2	0.0	0.0	0.2	
TOTAL NO. STORMS OVER 0.1 INCH:	4	SPECIFIC CONDUCTIVITY (mS/cm):	0.030	0.163	0.144	0.134	0.025	
MAX. DAILY RAINFALL:	2.7 inches	DISSOLVED						
TOTAL RAINFALL (FOR PERIOD):	3.5 inches	OXYGEN (mg/L):	4.8	8.0	6.7	6.6	0.7	
		Stage & Rain	fall					
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8/27 8/29 8	9/31 9/2 9/4 9	/6 9/8 9/10	9/12 9/1	4 9/16	9/18 9/20	9/22	9/24	
300		Turbidit	у					
			•		9.0			
P 200			1 1	i 1	AL			
8/27 8/29	8/31 9/2 9/4	9/6 9/8 9/10	9/12 9/	/14 9/16	9/18 9/2	20 9/22	9/24	
		рН						
7.5		40.00						
± 6.9 6.6 6.3					13/1			
6.0	8/31 9/2 9/4	9/6 9/8 9/10	9/12 9/	/14 9/16	9/18 9/3	20 9/22	9/24	
0/27 0/25	5/31 5/2 5/4	5/0 5/0 5/10	3/12 3/	3/10	5/10 5/.	20 3/22	3/24	
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				• 1				
0.00 	8/31 9/2 9/4	9/6 9/8 9/10	9/12 9	/14 9/16	9/18 9/	20 9/22	9/24	
SCDHEC in-stream stan	dard: Daily average not less than 5 mg/L v	vith a low of 4 mg/L Dissolve	ed Oxygen			4 mg/L (SCDHEC	Low Standard)	
10	and the state of t	2.35000			A = =	G, 1,52220		
Mg/L								
2	8/21 0/2 0/4	9/6 0/9 0/20	0/12	2/14 0/16	0/10	/20 0/22	9/24	
8/27 8/29	8/31 9/2 9/4	9/6 9/8 9/10	9/12	9/14 9/16	9/18 9	/20 9/22	9/24	

Continuous Water Quality Monitoring Periodic Report

Smith Branch A (August 27, 2020 - September 24, 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:

	Sam	ple 1	Sam	Sample 2		Sample 3		Sample 4	
Analyte (units)	9/17/	/2020	9/17/2020		9/17/2020		9/17/2020		
	Time	Results	Time	Results	Time	Results	Time	Results	
Escherichia coli (MPN/100mL)	10:25	2,444	11:53	1,400	13:45	10,340	15:02	6,152	
Total Suspended Solids (mg/L)	10:25	166	11:53	182	13:45	37.7	15:02	32.3	
Total Phosphorus (mg/L)	10:25	0.210	11:53	0.23	13:45	0.088	15:02	0.098	
Total Nitrogen (mg/L)	10:25	0.77	11:53	1.33	13:45	1.09	15:02	1.3	

	Sam	ple 5	Sample 6		Sample 7		Sample 8	
Analyte (units)	9/21/2020							
	Time	Results	Time	Results	Time	Results	Time	Results
Escherichia coli (MPN/100mL)	9:10	914						
Total Suspended Solids (mg/L)	9:10	2.4						
Total Phosphorus (mg/L)								
Total Nitrogen (mg/L)								

 $Notes: Samples\ 1-4\ were\ taken\ during\ wet\ weather\ conditions.\ Sample\ 5\ was\ taken\ during\ dry\ weather\ conditions.$



Continuous Water Quality Monitoring Periodic Report



Smith Branch B (August 27, 2020 - September 24, 2020)

		CONTINUOUS		SUMMARY STATISTICS			
PARAMETER	DESCRIPTION	WATER QUALITY PARAMETERS:	MINIMUM OBSERVED	MAXIMUM OBSERVED	MEDIAN OBSERVED	MEAN OBSERVED	STANDARD DEVIATION
STREAM NAME:	Smith Branch	STAGE (FT):	-0.1	0.7	0.5	0.5	0.1
LOCATION:	Off Mountain Drive						
NEAREST ADDRESS:	3950 Clement Rd Columbia, SC 29203	TEMPERATURE (°F):	70	85	79	79	3
COORDINATES:	34.037933,-81.0591	TURBIDITY (NTU):	2	12	3	4	1
TMDL/IMPAIRMENT:	Fecal Coliform	TOKBIDITT (NTO).	2	12	3	4	'
NEIGHBORING LANDUSE:	Residential and commercial	pH:	6.9	7.9	7.1	7.2	0.3
SPATIAL LOCATION:	Most Downstream Site			-			
TOTAL NO. STORMS OVER 0.1 INCH:	0	SPECIFIC CONDUCTIVITY (mS/cm):	0.126	0.147	0.137	0.138	0.005
MAX. DAILY RAINFALL: TOTAL RAINFALL (FOR	0.0 inches	DISSOLVED OXYGEN (mg/L):	-	-	-	-	-
PERIOD):							
Rainfall data not available	2.	Stage & Raint	all				0.0
# 2 dge 1							0.5
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85	www						+
75							
8/27 8/29 8	3/31 9/2 9/4	9/6 9/8 9/10	9/12 9/14	4 9/16	9/18 9/20	9/22	9/24
		Turbidity	,				
75							
E 50 25							
0 8/27 8/29	8/31 9/2 9/4	9/6 9/8 9/10	9/12 9/	14 9/16	9/18 9/2	0 9/22	9/24
8.0		pH					
E 7.5							
6.5							
8/27 8/29	8/31 9/2 9/4	9/6 9/8 9/10	9/12 9/1	14 9/16	9/18 9/2	0 9/22	9/24
		Specific Con	ductivity				
0.20			udentity				
0.15 0.10 0.05							
0.00	9/31 9/3 9/4	0/6 0/9 0/12	0/12	///	0/19 0/1	20 0/22	0/24
8/27 8/29	8/31 9/2 9/4	9/6 9/8 9/10	9/12 9/	/14 9/16	9/18 9/	20 9/22	9/24
DO data not available b	ecause sensor was removed for repairs.	Dissolved	l Oxygen			- 4 mg/L (SCDHEC L	ow Standard)
9							
78m 5							
3 +		1 1					

Continuous Water Quality Monitoring Periodic Report

Smith Branch B (August 27, 2020 - September 24, 2020)

Explanation of Statistics:

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Sampled Data:

	Sam	ple 1	Sample 2		Sample 3		Sample 4	
Analyte (units)	9/17,	/2020	9/17/	/2020	9/17/2020		9/17/2020	
	Time	Results	Time	Results	Time	Results	Time	Results
Escherichia coli (MPN/100mL)	10:10	3,450	11:36	2,966	13:30	13,730	14:49	9,768
Total Suspended Solids (mg/L)	10:10	274	11:36	91.2	13:30	29	14:49	27.1
Total Phosphorus (mg/L)	10:10	0.350	11:36	0.16	13:30	0.076	14:49	0.079
Total Nitrogen (mg/L)	10:10	1.94	11:36	0.82	13:30	0.58	14:49	0.83

Notes: Samples 1-4 were taken during wet weather conditions.