

Continuous Water Quality Monitoring Periodic Report



Smith Branch A (July 7, 2021 - August 9, 2021)

		CONTINUOUS		SUM	MARY STATIS	TICS	
PARAMETER	DESCRIPTION	WATER QUALITY PARAMETERS:	MINIMUM OBSERVED	MAXIMUM OBSERVED	MEDIAN OBSERVED	MEAN OBSERVED	STANDARD DEVIATION
STREAM NAME:	Smith Branch	STAGE (FT):	1.6	6.7	1.7	1.8	0.4
LOCATION:	Earlewood Park						
ADDRESS:	1111 Parkside Dr Columbia, SC 29201	TEMPERATURE (°F):	73	86	78	78	2
COORDINATES:	34.027289,-81.04265	TURBIDITY (NTU):	1	340	9	26	41
TMDL/IMPAIRMENT:	Fecal Coliform						
NEIGHBORING LANDUSE:	Residential and commercial	pH:	5.7	7.1	6.7	6.6	0.2
SPATIAL LOCATION:	Most upstream site	•					V
TOTAL NO. STORMS OVER 0.1 INCH:	12	SPECIFIC CONDUCTIVITY (mS/cm):	0.021	0.153	0.124	0.116	0.026
MAX. DAILY RAINFALL:	1.6 inches	DISSOLVED					
TOTAL RAINFALL (FOR PERIOD):	7.6 inches	OXYGEN (mg/L):	5.4	8.3	7.1	7.1	0.5
	<u> </u>	Stage & Rain	fall				
# 8 8 4 0 7/7 7/9 7/11	7/13 7/15 7/17 7,	JAJa	/25 7/27	7/29 7/31	8/2 8/4	8/6 8/8	0.0 1.0 2.0 2.0 2.0 3.0 8/10
		Water Tem	מו				
90 85 80 70 7/7 7/9 7/11	7/13 7/15 7/17 7	/19 7/21 7/23 7	/25 7/27	7/29 7/31	8/2 8/4	8/6 8/8	3 8/10
400 300 200 100 0 7/7 7/9 7/9	11 7/13 7/15 7/17	7/19 7/21 7/23	7/25 7/27	7/29 7/31	8/2 8/4	8/6 8	/8 8/10
SCDHEC in-stream standar 7.3 7.0 6.7 6.4 6.4 6.1 5.8 5.5 7/7 7/9 7/11	7/13 7/15 7/17	·	7/25 7/27	7/29 7/31	8/2 8/4	4 8/6	8/8 8/10
		Specific Cond	ductivity				
8 0.15 8 0.15				-			
8 0.15 0.10 0.05 0.00 7/7 7/9 7/1	1 7/13 7/15 7/17	7/19 7/21 7/23	7/25 7/27	7/29 7/31	8/2 8/	4 8/6	8/8 8/10
			'/	, , ,,,,,,	-,- 01	-, -	
SCDHEC in-stream stand	dard: Daily average not less than 5 mg/L wi	th a low of 4 mg/L Dissolve	d Oxygen		~~~	4 mg/L (SCDHEC I	Low Standard)
4 +							
7/7 7/9 7/1	1 7/13 7/15 7/17	7/19 7/21 7/23	7/25 7/27	7/29 7/31	8/2 8,	/4 8/6	8/8 8/10

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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	ple 2	Sample 3		Sample 4	
Analyte (units)	7/20	/2021	8/3/2021		8/3/	8/3/2021		2021
	Time	Results	Time	Results	Time	Results	Time	Results
Escherichia coli (MPN/100mL)	13:08	10,950	9:01	4,718	10:09	11,590	11:22	6,564
Total Suspended Solids (mg/L)	13:08	155	9:01	75.6	10:09	111	11:22	50
Total Phosphorus (mg/L)			9:01	0.18	10:09	0.18	11:22	0.12
Total Nitrogen (mg/L)			9:01	2.36	10:09	1.9	11:22	1.13

	Sam	ple 1	Sam	ple 2	Sample 3		Sample 4	
Analyte (units)	8/3/2021							
	Time	Results	Time	Results	Time	Results	Time	Results
Escherichia coli (MPN/100mL)	12:39	5,510						
Total Suspended Solids (mg/L)	12:39	23						
Total Phosphorus (mg/L)	12:39	0.086						
Total Nitrogen (mg/L)	12:39	0.749						

All samples were collected during wet weather conditions.

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Notes:

Data Gaps

The turbidity sensor's wiper malfunctioned which caused multiple periods of turbidity fouling that were removed on July 10^{th} - 11^{th} , July 13^{th} - 14^{th} , July 17^{th} - 27^{th} , July 28^{th} - August 2^{nd} , and August 4^{th} - 9^{th} .

Potential Illicit Discharges and Abnormal Events:

There were no abnormal events at the SMIA station during this monitoring period.



Continuous Water Quality Monitoring Periodic Report



Smith Branch B (July 7, 2021 - August 9, 2021)

		CONTINUOUS		SUI	MMARY STATIS			
PARAMETER	DESCRIPTION	WATER QUALITY PARAMETERS:	MINIMUM OBSERVED	MAXIMUM OBSERVED	MEDIAN OBSERVED	MEAN OBSERVED	STANDARD DEVIATION	
STREAM NAME:	Smith Branch	STAGE (FT):	0.2	5.6	0.7	0.8	0.4	
LOCATION:	Off Mountain Drive	TEMPERATURE (95)	70	00	70	70	0	
NEAREST ADDRESS:	3950 Clement Rd Columbia, SC 29203	TEMPERATURE (°F):	73	86	78	78	2	
COORDINATES:	34.037933,-81.0591	TURBIDITY (NTU):	1	422	11	22	35	
TMDL/IMPAIRMENT:	Fecal Coliform	TOKBIDITT (NTO).	!	422	11	22	33	
NEIGHBORING LANDUSE:	Residential and commercial	pH:	_	_	_	_	_	
SPATIAL LOCATION:	Most Downstream Site							
TOTAL NO. STORMS OVER 0.1 INCH:	14	SPECIFIC CONDUCTIVITY (mS/cm):	-	-	-	-	-	
MAX. DAILY RAINFALL:	1.3 inches	DISSOLVED OXYGEN		0.0	7.0	7.0	0.0	
TOTAL RAINFALL (FOR PERIOD):	7.1 inches	(mg/L):	5.5	9.8	7.3	7.3	0.6	
		Stage & Rainf	all	•	•	•		
± 8		1111		11	7		0.0	
Stage, ft		lak.					0.5	
7/7 7/9 7/11	7/13 7/15 7/17 7	7/19 7/21 7/23 7	/25 7/27	7/29 7/31	8/2 8/4	8/6 8/8	1.5	
		Water Tem	ıp					
90 85	A A A A A A A			4 1 1	\ \ \ \ \			
₩ 80 75	MANAGAM	www	MAN	3000	AAM	~~~	7	
70 . 7/7 7/9 7/11	7/13 7/15 7/17	7/19 7/21 7/23	7/25 7/27	7/29 7/31	8/2 8/4	8/6 8/	/8	
500		Turbidity	, 					
300 200 100			 					
7/7 7/9 7/	11 7/13 7/15 7/17	7/19 7/21 7/23	7/25 7/27	7/29 7/31	8/2 8/4	8/6 8	3/8	
						, 		
pH data not available be	ecause the sensor was out for repairs.	рН						
8.0 7.5 7.0								
7.0 6.5 6.0								
7/7 7/9 7/11	7/13 7/15 7/17	7/19 7/21 7/23	7/25 7/27	7/29 7/31	8/2 8/4	8/6	8/8	
0.20 Specific conductivity dat	a not available because the sensor was ou	ut for repairs. Specific Con	ductivity					
5 0.15 0.10 0.05								
0.05 0.00								
7/7 7/9 7/1	1 7/13 7/15 7/17	7/19 7/21 7/23	7/25 7/27	7/29 7/31	8/2 8/	4 8/6	8/8	
SCDHEC in-stream star	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)	
12	, and a second ring to	J. Dissolved				- ma/ E (SCOTEC E	J. Juliualu)	
√8				~~	~~~	~~~	\	
4 2								
7/7 7/9 7/1	1 7/13 7/15 7/17	7/19 7/21 7/23	7/25 7/27	7/29 7/31	. 8/2 8	/4 8/6	8/8	

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

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Sampled Data:

	Samı	ole 1	Sam	nple 2 Sample 3		ple 3	Sample 4	
Analyte (units)	8/3/2021		8/3/	8/3/2021 8/		2021	8/3/2021	
	Time	Results	Time	Results	Time	Results	Time	Results
Escherichia coli (MPN/100mL)	9:15	2,666	10:21	15,400	11:44	12,260	12:54	4,978
Total Suspended Solids (mg/L)	9:15	22.6	10:21	139	11:44	68	12:54	36
Total Phosphorus (mg/L)	9:15	0.094	10:21	0.27	11:44	0.15	12:54	0.11
Total Nitrogen (mg/L)	9:15	1.04	10:21	1.75	11:44	1.09	12:54	0.94

All samples were collected during wet weather conditions.

Notes:

Data Gaps

Specific conductivity and pH data were not collected at the SMIB station because the sensors malfunctioned during this monitoring period.

Potential Illicit Discharges and Abnormal Events:

There were no abnormal events during this monitoring period at the SMIB station.