Continuous Water Quality Monitoring Periodic Report

Smith Branch A (December 7, 2022 - January 10, 2023)

	CONTINUOUS			SUMMARY STATISTICS							
PARAMETER	DESCRIPTION		WATER QUALITY PARAMETERS:	MINIMUM OBSERVED	MAXIMUM OBSERVED	MEDIAN OBSERVED	MEAN OBSERVED	STANDARD DEVIATION			
STREAM NAME:	Smith Branch		STAGE (FT):	1.7	4.8	1.8	1.9	0.2			
LOCATION:	Earlewood Park	:									
ADDRESS:	1111 Parkside D Columbia, SC 292		TEMPERATURE (°F)	38	62	52	52	6			
COORDINATES:	34.027289,-81.042	265	TURBIDITY (NTU):	0	487	9	17	27			
TMDL/IMPAIRMENT:	Fecal Coliform										
NEIGHBORING LANDUSE:	Residential and comm	nercial	pH:	6.5	7.0	6.9	6.9	0.1			
SPATIAL LOCATION:	Most upstream si	te	·								
TOTAL NO. STORMS OVER 0.1 INCH:	8		SPECIFIC CONDUCTIVITY (mS/cm):	0.050	0.244	0.155	0.148	0.028			
MAX. DAILY RAINFALL: TOTAL RAINFALL	0.7 inches		DISSOLVED OXYGEN (mg/L):	7.7	12.1	9.5	9.7	1.0			
(FOR PERIOD):	0.4	398.000	(3-)					<u> </u>			
12	-		Stage & Rai	nfall	1 ***			0.0			
Stage, # 9 6 6 6 7 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9								0.5			
15. 3						\\		0.5			
12/7 12/9 12/11	12/13 12/15 12/	17 12/1	9 12/21 12/23 12/	25 12/27 12/	29 12/31	1/2 1/4	1/6 1/8	1/10			
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500			Turbid	ty							
600 500 400 300 200 100											
5 200 100											
12/7 12/9 12,	11 12/13 12/15 1	12/17 12	2/19 12/21 12/23 1	2/25 12/27 1	2/29 12/31	1/2 1/4	1/6 1/8	1/10			
SCDHEC in-stream standa	rd: All pH values not less than 6	5.0 and not m	nore than 8.5 pH								
7.2								_			
五 6.8 6.4											
6.0 12/7 12/9 12/1	12/13 12/15 12	2/17 12/	(19 12/21 12/23 1	2/25 12/27 1	2/29 12/31	1/2 1/4	1/6 1/8	1/10			
			Specific Co	nductivity							
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CODURC:	dord Daily	an F " :	the low of a h	-10			4 m-// /CODUST	lau Steed "			
14	dard: Daily average not less the	an 5 mg/L wi	LII a IOW OT 4 Mg/L Dissolv	ed Oxygen			4 mg/L (SCDHEC	Low Standard)			
12											
12 10 80 8 8											
12 10 10 86 8 4 2 12/7 12/9 12/9	11 12/13 12/15 1	12/17 12	2/19 12/21 12/23	12/25 12/27	12/29 12/31	1/2 1/4	1/6 1/8	1/10			

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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:

	Sample 1 1/4/2023		Sam	ple 2	Sam	ple 3	Sample 4 1/4/2023		
Analyte (units)			1/4/	2023	1/4/	2023			
	Time	Results	Time	Results	Time	Results	Time	Results	
Escherichia coli (MPN/100mL)	9:25	1,866	10:45	4,564	11:55	18,420	13:45	9,768	
Total Suspended Solids (mg/L)	9:25	11.3	10:45	75.0	11:55	752.0	13:45	144.0	
Total Phosphorus (mg/L)	9:25	0.10	10:45	0.54	11:55	0.82	13:45	0.27	
Total Nitrogen (mg/L)	9:25	1.14	10:45	1.58	11:55	4.12	13:45	1.51	

All samples were collected during wet weather conditions.

Notes:

Data Gaps

There was a gap in stage data on 12/17, likely due to equipment communication failure.

Potential Illicit Discharges and Abnormal Events:

Specific conductivity increased on 12/21, which may have been the result of a potential illicit discharge.

Continuous Water Quality Monitoring Periodic Report

Smith Branch B (December 7, 2022 - January 10, 2023)

		CONTINUOUS			SUMMARY STATISTICS										
PARAMETER	DESCRIPTION		ESCRIPTION WATER QUALITY PARAMETERS:				MINIMUM MAXIMUM OBSERVED OBSERVED			MEDIAN OBSERVED		MEAN OBSERVED		STANDARD DEVIATION	
STREAM NAME:	Smith Branch		STAC	E (FT):	:	0	.6	4.0		0.7		0.8		0.2	
LOCATION:	Off Mountain Drive														
NEAREST ADDRESS:	3950 Clement Rd Columbia, SC 29203		TEMPERATURE (°F):		3	37	62		51		50			6	
COORDINATES:	34.037933,-81.0591		TURBIDITY (NTU):			2	2147		10			21		56	
TMDL/IMPAIRMENT:	Fecal Coliform				Í	_									
NEIGHBORING LANDUSE:	Residential and commercia	ıl	pH:			_	_		_			_		-	
SPATIAL LOCATION:	Most Downstream Site		P ····							_					
TOTAL NO. STORMS OVER 0.1 INCH:	7		SPECIFIC CONDUCTIVITY (mS/cm):		0.0)44	0.204		0.145		0.137		0.027		
MAX. DAILY RAINFALL:	0.8 inches 0.4 398.000		DISSO	LVED (OXYGEN):	8	.1	12.8		10.2		10.3		1.1	
PERIOD):	0.4 390.000											<u> </u>		<u> </u>	
12	No.		Т	S	Stage & Rainf	all			_						⊤ 0.0
8 tage, #															0.5
Stag 0											人				1.0
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60 50 40	~~~	4		-			~	سرم	~~	~	~~	\ <u>\</u>		^	
60 50	12/13 12/15 12/17	12/19	9 12/2	21 12	/23 12/2	25 12/	27 12	/29 12/	31	1/2	1/4	1/6	1/8	1/10	
60 50 40 30	12/13 12/15 12/17	12/19	9 12/2	1 12			27 12	/29 12/	31	1/2	1/4	1/6	1/8	1/10	
60 50 40 30 12/7 12/9 12/11	12/13 12/15 12/17	12/19	9 12/2	21 12	/23 12/2		27 12	/29 12/	31	1/2	1/4	1/6	1/8	1/10	
50 40 30 12/7 12/9 12/11	12/13 12/15 12/17	12/19	9 12/2	21 12			27 12	/29 12/	31	11/2	1/4	1/6	1/8	1/10	
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2500 2000 1500 1500 1500 1500 1500	11 12/13 12/15 12/17				Turbidity										
2500 2000 2000 2000 2000 2000 2000 2000	11 12/13 12/15 12/17				Turbidity										
2500 2000 2000 2000 2000 12/7 12/9 12/11 2500 2000 1	11 12/13 12/15 12/17				Turbidity										
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2500 2000 12/7 12/9 12/11 2500 2000 1500 1000 12/7 12/9 12/1	11 12/13 12/15 12/17		/19 12	/21 1	Turbidity	/25 12	2/27 1	22/29 12							
2500 12/7 12/9 12/11 2500 2000 1500 1000 1	11 12/13 12/15 12/17 ensor malfunction.	12/	/19 12	/21 1	Turbidity 12/23 12, pH	/25 12	2/27 1	22/29 12	/31	1/2	1/4	1/6	1/8	1/10	
2500 2500 2000 2000 2000 2000 2000 2000	11 12/13 12/15 12/17 ensor malfunction.	12/	/19 12	/21 1	Turbidity	/25 12	2/27 1	22/29 12	/31	1/2	1/4	1/6	1/8	1/10	
2500 12/7 12/9 12/11 2500 2000 1000 1000 12/7 12/9 12/1 12/7 12/9 12/1 0.30	11 12/13 12/15 12/17 ensor malfunction.	12/	/19 12	/21 1	Turbidity 12/23 12, pH	/25 12	2/27 1	22/29 12	/31	1/2	1/4	1/6	1/8	1/10	
2500 12/7 12/9 12/11 2500 12/7 12/9 12/11 PH not reported due to see 8.0 7.5 7.0 6.5 12/7 12/9 12/11	11 12/13 12/15 12/17 ensor malfunction.	12/	/19 12	/21 1	Turbidity 12/23 12, pH	/25 12	2/27 1	22/29 12	/31	1/2	1/4	1/6	1/8	1/10	
2500 12/7 12/9 12/11 2500 2000 11500 12/7 12/9 12/11 PH not reported due to see 8.0 7.5 7.0 6.5 12/7 12/9 12/11	11 12/13 12/15 12/17 ensor malfunction. 12/13 12/15 12/17	12/	9 12/	/21 1	Turbidity 12/23 12, pH 2/23 12/	//25 12 //25 12, // ductivity	2/27 1:	2/29 12	/31	1/2	1/4	1/6	1/8	1/10	
PH not reported due to se 8.0 12/7 12/9 12/11 PH not reported due to se 8.0 7.5 7.0 6.5 12/7 12/9 12/11	11 12/13 12/15 12/17 ensor malfunction. 12/13 12/15 12/17	12/1	9 12/	21 12	Turbidity 12/23 12/ pH Specific Cone	/25 12/ ductivity	2/27 1:	2/29 12	/31	1/2	1/4	1/6	1/8	1/10	0
PH not reported due to se 12/7 12/9 12/11 PH not reported due to se 8.0 7.5 7.0 6.5 12/7 12/9 12/11 SCDHEC in-stream star	11 12/13 12/15 12/17 ensor malfunction.	12/1	9 12/	21 12	Turbidity 12/23 12, pH 2/23 12/	/25 12/ ductivity	2/27 1:	2/29 12	/31	1/2	1/4	1/6	1/8	1/10	0
PH not reported due to see 12/7 12/9 12/11 PH not reported due to see 12/7 12/9 12/11 PH not reported due to see 12/7 12/9 12/11 SCDHEC in-stream star	11 12/13 12/15 12/17 ensor malfunction. 12/13 12/15 12/17	12/1	9 12/	21 12	Turbidity 12/23 12/ pH Specific Cone	/25 12/ ductivity	2/27 1:	2/29 12	/31	1/2	1/4	1/6	1/8	1/10	0
PH not reported due to se 8.0 12/7 12/9 12/11 PH not reported due to se 8.0 7.5 7.0 6.5 12/7 12/9 12/11	11 12/13 12/15 12/17 ensor malfunction. 12/13 12/15 12/17	12/1	9 12/	21 12	Turbidity 12/23 12/ pH Specific Cone	/25 12/ ductivity	2/27 1:	2/29 12	/31	1/2	1/4	1/6	1/8	1/10	0

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Sampled Data:

	Sample 1		Sam	ple 2	Sam	ple 3	Sample 4		
Analyte (units)	1/4/	2023	1/4/	2023	1/4/	2023	1/4/2023		
	Time	Results	Time	Results	Time Results		Time	Results	
Escherichia coli (MPN/100mL)	9:00	6,152	10:35	4,196	11:40	14,540	13:20	11,590	
Total Suspended Solids (mg/L)	9:00	17.6	10:35	17.2	11:40	520.0	13:20	326.0	
Total Phosphorus (mg/L)	9:00	0.10	10:35	0.11	11:40	0.40	13:20	0.40	
Total Nitrogen (mg/L)	9:00	0.87	10:35	0.98	11:40	2.24	13:20	2.14	

All samples were collected during wet weather conditions.

Notes:

Data Gaps

There was a gap in turbidity from 12/28 - 1/3 due to fouling, and the pH probe was removed during the entire monitoring period due to sensor malfunction. There was a gap in stage data on 12/17, likely due to equipment communication failure.

Potential Illicit Discharges and Abnormal Events:

Specific conductivity increased on 12/21, which may have been the result of a potential illicit discharge.