Continuous Water Quality Monitoring Periodic Report

Gills Creek A (August 23, 2023 - October 3, 2023)

			CONTINUOUS	SUMMARY STATISTICS						
PARAMETER	DESCRIPTION		WATER QUALITY PARAMETERS:	MINIMUM OBSERVED	MAXIMUM OBSERVED	MEDIAN OBSERVED	MEAN OBSERVED	STANDARI DEVIATION		
STREAM NAME:	Gills Creek		STAGE (FT):	1.3	4.7	1.6	1.8	0.5		
LOCATION:	Forest Drive Bridg	ge								
ADDRESS:	4840 Forest Drive Columbia, SC 2920	,	TEMPERATURE (°F)	71	90	81	81	4		
COORDINATES:	34.019826, -80.963	566	TURBIDITY (NTU):	3	224	7	9	13		
TMDL/IMPAIRMENT:	Fecal & Dissolved Ox	kygen	TOKBIBITT (NTO).		224	,		10		
NEIGHBORING LANDUSE:	Residential and comm	nercial	pH:	6.2	7.6	6.7	6.7	0.1		
APPROX. DRAINAGE AREA:	48 square miles	;								
SPATIAL LOCATION:	Most upstream sit	te	SPECIFIC							
TOTAL NO. STORMS OVER 0.1 INCH:	5		CONDUCTIVITY (mS/cm):	0.020	0.058	0.042	0.043	0.003		
MAX. DAILY RAINFALL:	2.3 inches		DISSOLVED							
TOTAL RAINFALL (FOR PERIOD):	6.8 inches		OXYGEN (mg/L):	5.7	8.4	7.4	7.3	0.5		
		•	Stage & Rai	nfall						
# 16 12 T	7							0.0		
Stage 8								0.5 0.5 1.0 1.5		
0								2.0		
95			Water Te	тр						
75		50 -	7770	7007	~~~	~~~	~~~	~		
8/23 8/25 8/27	8/29 8/31 9/2 9/	/4 9/6	9/8 9/10 9/12	9/14 9/16 9/1	.8 9/20 9/22	9/24 9/26	9/28 9/30	10/2 10/4		
			Turbidi	tv						
300										
200 100 - 10				++++						
8/23 8/25 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 9/26	9/28 9/30	10/2 10/4		
0,23 0,23 0,27		3/4 3/0	3,0 3,10 3,12	3/14 3/10 3/	10 3/20 3/22	. 3/24 3/20	3,20 3,30	10/2 10/4		
	ard: All pH values not less than	6.0 and not r	more than 8.5 pH							
7.5	0.00	A A A								
E 6.5	may a voi	700	mm	mi	m		$\sim\sim\sim$	1		
0.5						1 1				
6.0	9/20 9/21 0/2 0/	/4 0/6	0/9 0/10 0/12	0/14 0/16 0/	10 0/20 0/22	0/24 0/26	0/20 0/20	10/2 10/4		
6.0	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 9/26	9/28 9/30	10/2 10/4		
8/23 8/25 8/27	8/29 8/31 9/2 9/	/4 9/6	9/8 9/10 9/12 Specific Cor		9/20 9/22	9/24 9/26	9/28 9/30	10/2 10/4		
0.08	8/29 8/31 9/2 9/	/4 9/6			18 9/20 9/22	9/24 9/26	9/28 9/30	10/2 10/4		
0.08	8/29 8/31 9/2 9/	9/6			18 9/20 9/22	9/24 9/26	9/28 9/30	10/2 10/4		
6.0 8/23 8/25 8/27 0.08 0.06 0.02 0.02 0.02			Specific Col	nductivity						
0.08 0.06 0.06 0.04 0.02		9/4 9/6		nductivity	18 9/20 9/22 18 9/20 9/22			10/2 10/4		
0.08 0.06 0.04 0.02 0.02 0.00 8/23 8/25 8/27		9/4 9/6	9/8 9/10 9/12	9/14 9/16 9/				10/2 10/4		
0.08 0.06 0.04 0.02 0.00 8/23 8/25 8/27	8/29 8/31 9/2 9	9/4 9/6 man 5 mg/L w	9/8 9/10 9/12	nductivity		9/24 9/26	9/28 9/30	10/2 10/4		
6.0 8/23 8/25 8/27 0.08 0.06 0.00 0.00 0.00 0.00 0.00 0.00	8/29 8/31 9/2 9	9/4 9/6	9/8 9/10 9/12	9/14 9/16 9/		9/24 9/26	9/28 9/30	10/2 10/4		

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

Continuous Water Quality Monitoring Periodic Report

Gills Creek A (August 23, 2023 - October 3, 2023)

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: All samples were collected during wet weather conditions.

	Sample 1		Sample 2		Sample 3		Sample 4	
Analyte (units)	8/30	/2023	8/30,	/2023	8/30/	2023	8/30/2023	
	Time	Results	Time	Results	Time	Results	Time	Results
Escherichia coli (MPN/100mL)	11:35	104	13:55	40	14:45	220	15:50	4,200
Total Suspended Solids (mg/L)	11:35	6.7	13:55	7.2	14:45	6.8	15:50	30
Total Phosphorus (mg/L)	11:35	0.027	13:55	0.030	14:45	0.034	15:50	0.056
Total Nitrogen (mg/L)	11:35	0.63	13:55	0.65	14:45	0.64	15:50	2.22

Notes:

Data Gaps

There were no data gaps at the GILA station during this monitoring period.

Potential Illicit Discharges and Abnormal Events:

There were multiple instances of increased specfic conductivity throughout the monitoring period which may have been the result of illicit discharges.

Continuous Water Quality Monitoring Periodic Report

Gills Creek B (August 23, 2023 - October 3, 2023)

		CONTINUOUS	SUMMARY STATISTICS					
PARAMETER	DESCRIPTION	WATER QUALITY PARAMETERS:	MINIMUM OBSERVED	MAXIMUM OBSERVED	MEDIAN OBSERVED	MEAN OBSERVED	STANDARD DEVIATION	
STREAM NAME:	Gills Creek	DISCHARGE (CFS):	12.7	579.0	27.9	64.4	86.6	
LOCATION:	Devine Street bridge	TEMPERATURE	72	92	81	80	4	
ADDRESS:	4716 Devine Street Columbia, SC 29209	(°F):	12	92	01	80	4	
COORDINATES:	33.989656, -80.97433	TURBIDITY (NTU):	2	83	11	11	6	
TMDL/IMPAIRMENT:	Fecal & Dissolved Oxygen	TORBIETT (NTO).		00	11	11	Ŭ	
NEIGHBORING LANDUSE:	Residential and commercial	pH:	5.9	6.8	6.2	6.3	0.2	
APPROX. DRAINAGE AREA:	59 square miles	P	0.0	0.0	0.2	0.0	5.2	
SPATIAL LOCATION:	Middle site	SPECIFIC	0.022	0.000	0.047	0.047	0.002	
TOTAL NO. STORMS OVER 0.1 INCH:	8	CONDUCTIVITY (mS/cm):	0.022	0.063	0.047	0.047	0.003	
MAX. DAILY RAINFALL:	2.0 inches	DISSOLVED						
TOTAL RAINFALL (FOR PERIOD):	7.0 inches	OXYGEN (mg/L):	2.6	7.8	6.1	6.0	1.1	
This discharge data is from the	e USGS 02169570 Gills Creek station.	Discharge & Rain	nfall	-	•	-	-	
£ 1500	7						0.0	
1000 007 007 007							1.0	
8/23 8/25 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 9/26 9	9/28 9/30 10	1.5	
3,25 3,25 3,25		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	-,		-,			
25		Water Temp						
95								
75	annor.	valous	m	~~~	~~~		^	
65	0/21 0/2 0/4 0/5	0/0 0/10 0/12 0/14	0/16 0/10	0/20 0/22	0/24 0/25	0/20 0/20 4	/2 10/4	
8/23 8/25 8/27 8/29	8/31 9/2 9/4 9/6 9	9/8 9/10 9/12 9/14	9/16 9/18	9/20 9/22	9/24 9/26	9/28 9/30 10	0/2 10/4	
		Turbidity						
150								
F 50								
0 	9 8/31 9/2 9/4 9/6	9/8 9/10 9/12 9/14	4 9/16 9/18	8 9/20 9/22	9/24 9/26	9/28 9/30 1	0/2 10/4	
SCDHEC in-stream standard: All	pH values not less than 6.0 and not more t	han 8.5 pH						
五 6.5 五 6.0				M				
6.0								
5.5 	8/31 9/2 9/4 9/6 9	9/8 9/10 9/12 9/14	9/16 9/18	9/20 9/22	9/24 9/26	9/28 9/30 1	.0/2 10/4	
0.08		Specific Conduc	ctivity					
							~	
8 0.06 0.04 0.02		• • • •	7					
0.00 	9 8/31 9/2 9/4 9/6	9/8 9/10 9/12 9/14	9/16 9/18	8 9/20 9/22	9/24 9/26	9/28 9/30	10/2 10/4	
0/23 0/23 0/21 8/29		5/0 5/10 5/12 9/14	- 3/10 3/10		3/24 3/20	3,20 3/30 .	10/4	
	: Daily average not less than 5 mg/L with a	low of 4 mg/L Dissolved Ox	kygen			4 mg/L (SCDHEC	Low Standard)	
10 8 6		A Para and				g/ _ (555/1E0		
Ē 4							14	
2 0								
8/23 8/25 8/27 8/29	9 8/31 9/2 9/4 9/6	9/8 9/10 9/12 9/1	4 9/16 9/1	18 9/20 9/22	9/24 9/26	9/28 9/30	10/2 10/4	

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

Continuous Water Quality Monitoring Periodic Report

Gills Creek B (August 23, 2023 - October 3, 2023)

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: All samples were collected during wet weather conditions.

	Sam	ple 1	Sam	Sample 2		Sample 3		Sample 4	
Analyte (units)	8/30,	/2023	8/30/	2023	8/30,	/2023	8/30	8/30/2023	
	Time	Results	Time	Results	Time	Results	Time	Results	
Escherichia coli (MPN/100mL)	11:20	82	13:35	148	14:30	346	15:30	3,060	
Total Suspended Solids (mg/L)	11:20	15.2	13:35	13.7	14:30	14.0	15:30	16.0	
Total Phosphorus (mg/L)	11:20	0.057	13:35	0.060	14:30	0.54	15:30	0.066	
Total Nitrogen (mg/L)	11:20	0.74	13:35	0.73	14:30	0.70	15:30	0.76	

Notes:

Data Gaps

There were no data gaps at the GILB station during this monitoring period.

Potential Illicit Discharges and Abnormal Events:

Specific conductivity increased on 9/13, which may have been the result of a potential illicit discharge.

Continuous Water Quality Monitoring Periodic Report

Gills Creek C (August 23, 2023 - October 3, 2023)

		CONTINUOUS	SUMMARY STATISTICS					
PARAMETER	DESCRIPTION	WATER QUALITY PARAMETERS:	MINIMUM OBSERVED	MAXIMUM OBSERVED	MEDIAN OBSERVED	MEAN OBSERVED	STANDARD DEVIATION	
STREAM NAME:	Gills Creek	STAGE (FT):	2.5	7.1	3.0	3.5	1.1	
LOCATION:	Bluff Road bridge	TEMPERATURE (°F):	70	86	78	78	4	
ADDRESS:	3009 Bluff Rd. Columbia, SC 29209	TEMPERATURE (F):	70	80	76	78	4	
COORDINATES:	33.948043, -80.9889	TURBIDITY (NTU):	4	132	7	9	9	
TMDL/IMPAIRMENT:	Fecal & Dissolved Oxygen	TORBIDITY (NTO):	4	132	7	9	9	
NEIGHBORING LANDUSE:	Residential and commercial							
APPROX. DRAINAGE AREA:	64 square miles	pH:	5.8	6.4	6.2	6.2	0.1	
SPATIAL LOCATION:	Most downstream site	SPECIFIC						
TOTAL NO. STORMS OVER 0.1 INCH:	8	CONDUCTIVITY (mS/cm):	0.027	0.094	0.051	0.052	0.006	
MAX. DAILY RAINFALL:	1.95 inches	DISSOLVED						
TOTAL RAINFALL (FOR PERIOD):	5.8 inches	OXYGEN (mg/L):	4.3	7.0	5.6	5.6	0.5	
12		Stage & Rainf	all				0.0	
8 8 8/25 8/27 8	8/29 8/31 9/2 9/4 9/6	9/8 9/10 9/12 9/2	14 9/16 9/18	9/20 9/22	9/24 9/26	9/28 9/30 10	0.5 1.0 1.5 /2 10/4	
85 75 65 8/23 8/25 8/27	8/29 8/31 9/2 9/4 9/6	9/8 9/10 9/12 9/	14 9/16 9/18	3 9/20 9/22	9/24 9/26	9/28 9/30 1	0/2 10/4	
200		Turbidity						
150 100 50 0 8/23 8/25 8/27	8/29 8/31 9/2 9/4 9/6	5 9/8 9/10 9/12 9	9/14 9/16 9/2	18 9/20 9/22	9/24 9/26	9/28 9/30	.0/2 10/4	
7.0 SCDHEC in-stream standa	ard: All pH values not less than 6.0 and not	more than 8.5 pH						
표 ^{6.5}			~~~					
5.5	8/29 8/31 9/2 9/4 9/6	9/8 9/10 9/12 9,	/14 9/16 9/1	8 9/20 9/22	9/24 9/26	9/28 9/30	10/2 10/4	
		Specific Cond	uctivity					
0.10		.,						
5 0.06 2 0.04					_	+	+-	
0.02 0.00 8/23 8/25 8/27	8/29 8/31 9/2 9/4 9/6	9/8 9/10 9/12 9	9/14 9/16 9/2	18 9/20 9/22	9/24 9/26	9/28 9/30	10/2 10/4	
				20 3/20 3/22				
10	ard: Daily average not less than 5 mg/L with	Dissolve	ed Oxygen			- 4 mg/L (SCDHEC L	ow Standard)	
8 6 6							-	
4 2							+	
8/23 8/25 8/27	8/29 8/31 9/2 9/4 9/6	9/8 9/10 9/12 9	/14 9/16 9/1	18 9/20 9/22	9/24 9/26	9/28 9/30	10/2 10/4	

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

Continuous Water Quality Monitoring Periodic Report

Gills Creek C (August 23, 2023 - October 3, 2023)

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: All samples were collected during wet weather conditions.

	Sam	Sample 1		Sample 2		Sample 3		Sample 4	
Analyte (units)	te (units) 8/30/2023		8/30/2023		8/30/2023		8/30/2023		
	Time	Results	Time	Results	Time	Results	Time	Results	
Escherichia coli (MPN/100mL)	10:28	346	13:35	170	14:37	350	16:16	538	
Total Suspended Solids (mg/L)	10:28	9.8	13:35	10.2	14:37	8.5	16:16	11.0	
Total Phosphorus (mg/L)	10:28	0.063	13:35	0.061	14:37	0.063	16:16	0.067	
Total Nitrogen (mg/L)	10:28	0.65	13:35	0.66	14:37	0.66	16:16	0.65	

Notes:

Data Gaps

There were no data gaps at the GILC station during this monitoring period.

Potential Illicit Discharges and Abnormal Events:

Specific conductivity increased on 9/13, which may have been the result of a potential illicit discharge.