Gills Creek Monitoring Sites

Monitoring Data Summary for March 24th, 2021 – April 27th, 2021

Data Gaps

- The GILA and GILC stations did not experience any interruptions in the data during this monitoring period.
- The GILB station experienced DO sensor fouling due to pollen from March 26th to March 29th and March 31st to April 2nd. These periods of data were removed from the dataset.

SCDHEC Standards

- None of the Gills Creek monitoring stations recorded any pH readings outside of the acceptable SCDHEC range
 of 6 to 8.5.
- The GILA station recorded an average DO value of 8.7 mg/L, the GILB station recorded an average DO value of 7.2 mg/L, and the GILC station recorded an average DO value of 8.7 mg/L, all of which are above the SCDHEC daily average DO standard of 5 mg/L.
- During this deployment period, the GILA, GILB, and GILC stations recorded minimum DO levels of 7.8 mg/L, 5.1 mg/L, and 7.8 mg/L, respectively. All the stations in the Gills Creek watershed recorded DO values above the SCDHEC instantaneous minimum standard of 4 mg/L.

Storm Events

- The GILA station recorded 7 storm events resulting in approximately 2.3 inches of rainfall. The GILB station recorded 7 storms that resulted in approximately 2.5 inches of rainfall. The GILC station recorded 7 storms that resulted in approximately 2.3 inches of rainfall.
- The monitored water quality parameters all displayed typical storm event response patterns during the recorded storm events in the Gills Creek watershed.

Potential Illicit Discharges and Abnormal Events

- At the GILA station, the specific conductivity increased several times during this deployment period. These specific conductivity spikes occurred on the following dates: March 26th, March 28th, March 31st, April 9th, April 22nd, and April 24th.
- At the GILB station, the specific conductivity increased several times during this deployment period. These specific conductivity spikes occurred on the following dates: April 9th-11th and April 24th.
- At the GILC station, the specific conductivity increased several times during this deployment period. These specific conductivity spikes occurred on the following dates: March 26th, March 28th, March 31st, April 9th, April 22nd, and April 24th.

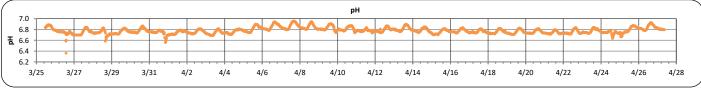
Flow Measurements

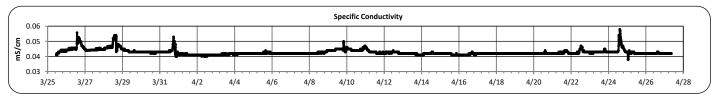
• No flow measurements were taken in Gills Creek during this monitoring period.

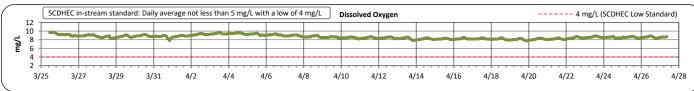




ARAMETER TREAM NAME: OCATION: DDRESS: OORDINATES: MDL/IMPAIRMENT: EIGHBORING ANDUSE: PPROX. DRAINAGE REA: PATIAL LOCATION:	Gills Creek Forest Drive Bridge 4840 Forest Drive, Columbia, SC 29206 34.019826, -80.963566 Fecal & Dissolved Oxygen Residential and commercial	WATER QUALITY PARAMETERS: STAGE (FT): TEMPERATURE (°F): TURBIDITY (NTU):	MINIMUM OBSERVED 1.6 60	MAXIMUM OBSERVED 2.6 76	MEDIAN OBSERVED 1.8	MEAN OBSERVED 1.9	STANDARE DEVIATION 0.2
OCATION: DDRESS: OORDINATES: MDL/IMPAIRMENT: EIGHBORING ANDUSE: PPROX. DRAINAGE REA:	Forest Drive Bridge 4840 Forest Drive, Columbia, SC 29206 34.019826, -80.963566 Fecal & Dissolved Oxygen Residential and commercial	TEMPERATURE (°F):	60	76			
DDRESS: OORDINATES: MDL/IMPAIRMENT: EIGHBORING ANDUSE: PPROX. DRAINAGE REA:	4840 Forest Drive, Columbia, SC 29206 34.019826, -80.963566 Fecal & Dissolved Oxygen Residential and commercial				68	68	3
OORDINATES: MDL/IMPAIRMENT: EIGHBORING ANDUSE: PPROX. DRAINAGE REA:	Columbia, SC 29206 34.019826, -80.963566 Fecal & Dissolved Oxygen Residential and commercial				68	68	3
MDL/IMPAIRMENT: EIGHBORING ANDUSE: PPROX. DRAINAGE REA:	Fecal & Dissolved Oxygen Residential and commercial	TURBIDITY (NTU):	1	160			
EIGHBORING ANDUSE: PPROX. DRAINAGE REA:	Residential and commercial	TORBIDITT (NTO).	1		3	4	8
ANDUSE: PPROX. DRAINAGE REA:				100	3	4	°
REA:		pH:	6.4	7.0	6.8	6.8	0.1
BATIAL LOCATION:	48 square miles	P	0.7	7.0	0.0	0.0	0.1
PATIAL LOCATION.	Most upstream site	SPECIFIC					
OTAL NO. STORMS VER 0.1 INCH:	7	CONDUCTIVITY (mS/cm):	0.038	0.058	0.042	0.043	0.002
IAX. DAILY RAINFALL:	0.6 inches	DISSOLVED			0.0		0.4
OTAL RAINFALL FOR PERIOD):	2.3 inches	OXYGEN (mg/L):	7.8	9.7	8.6	8.7	0.4
		Stage & Rainf	all				
9 6 3		1					0.0 0.3 0.6
3							0.6
3/25 3/27 3/29	3/31 4/2 4/4 4/	1/6 4/8 4/10 4/	12 4/14	4/16 4/18	4/20 4/22	4/24 4/26	
		Water Tem	р				
80 75					A		
70 65 60	www.						
55	3/31 4/2 4/4 4	4/6 4/8 4/10 4	/12 4/14	4/16 4/18	4/20 4/22	4/24 4/2	26 4/28
200		Turbidity	<u>, </u>				
150							
50						11	







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

Gills Creek A (March 24, 2021 - April 27, 2021)

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	Sample 2		Sample 3		Sample 4	
Analyte (units)								
	Time	Results	Time	Results	Time	Results	Time	Results
Escherichia coli								
(MPN/100mL)								
Total Suspended								
Solids (mg/L)								
Total Phosphorus								
(mg/L)								
Total Nitrogen								
(mg/L)								

Notes: No samples were collected during this deployment period.





4 mg/L (SCDHEC Low Standard)

4/25

4/27

4/23

4/21

Gills Creek B (March 24, 2021 - April 27, 2021)

PARAMETER	DESCRIPTION	CONTINUOUS WATER QUALITY	SUMMARY STATISTICS					
FARAMETER	DESCRIPTION	PARAMETERS:	MINIMUM OBSERVED	MAXIMUM OBSERVED	MEDIAN OBSERVED	MEAN OBSERVED	STANDARD DEVIATION	
STREAM NAME:	Gills Creek	DISCHARGE (CFS):	29.3	239.0	57.4	63.5	27.4	
LOCATION:	Devine Street bridge	TEMPERATURE (°F):	59	78	68	68	4	
ADDRESS:	4716 Devine Street Columbia, SC 29209	, ,						
COORDINATES:	33.989656, -80.97433	TURBIDITY (NTU):	1	808	12	20	33	
TMDL/IMPAIRMENT:	Fecal & Dissolved Oxygen	TORESTIT (ICTO).	·	000	12			
NEIGHBORING LANDUSE:	Residential and commercial	pH:	6.2	6.6	6.5	6.4	0.1	
APPROX. DRAINAGE AREA:	59 square miles	pn.	0.2	0.0	6.5	0.4	0.1	
SPATIAL LOCATION:	Middle site	SPECIFIC CONDUCTIVITY	0.042	0.073	0.054	0.054	0.003	
TOTAL NO. STORMS OVER 0.1 INCH:	7	(mS/cm):	0.042	0.073	0.034	0.034	0.003	
MAX. DAILY RAINFALL: TOTAL RAINFALL (FOR	0.8 inches	DISSOLVED	5.1	8.9	7.1	7.2	0.8	
PERIOD):	2.5 inches	OXYGEN (mg/L):						
	om the USGS 02169570 Gills Creek station.	Discharge & F	Rainfall				0.0	
\$5 400 F		1 7						
\$2 400 \$200 0							0.5	
SS 0							1.5	
3/24 3/26 3/28	3/30 4/1 4/3 4/5	4/7 4/9 4/11	4/13 4/1	5 4/17 4/	/19 4/21	4/23 4/25	4/27	
3/24 3/26 3/28	3/30 4/1 4/3 4/5	4/7 4/9 4/11	4/13 4/1	5 4/17 4/	/19 4/21 4	4/23 4/25		
3/24 3/26 3/28	3/30 4/1 4/3 4/5	4/7 4/9 4/11 Water Ten		5 4/17 4/	/19 4/21	4/23 4/25		
3/24 3/26 3/28 80 75	3/30 4/1 4/3 4/5			5 4/17 4/	/19 4/21	4/23 4/25		
3/24 3/26 3/28 80 75 70 66 60	3/30 4/1 4/3 4/5			5 4/17 4/	/19 4/21	4/23 4/25		
3/24 3/26 3/28 80 75 65	3/30 4/1 4/3 4/5	Water Ten	np AAAA	~\\\	W	4/23 4/25		
3/24 3/26 3/28 80 75 70 66 60 55 3/24 3/26 3/28		Water Ten	1 4/13 4/	~\\\	W	\ \.\.\	4/27	
3/24 3/26 3/28 80 75 70 60 55 3/24 3/26 3/28		Water Ten 4/7 4/9 4/11	1 4/13 4/	~\\\	1/19 4/21	\ \.\.\	4/27	
3/24 3/26 3/28 80 70 65 60 55 3/24 3/26 3/28		Water Ten 4/7 4/9 4/11	1 4/13 4/	~\\\	1/19 4/21	\ \.\.\	4/27	
3/24 3/26 3/28 80 75 70 66 60 800 800 800 1000 800 400 200 0	3/30 4/1 4/3 4/5	Water Ten 4/7 4/9 4/11 Turbidity	1 4/13 4/	15 4/17 4	1/19 4/21	4/23 4/25	4/27	
3/24 3/26 3/28 80 75 70 60 55 3/24 3/26 3/28	3/30 4/1 4/3 4/5	Water Ten 4/7 4/9 4/11	1 4/13 4/	15 4/17 4	1/19 4/21	\ \.\.\	4/27	
3/24 3/26 3/28 80 75 70 60 60 800 800 800 800 400 200 0	3/30 4/1 4/3 4/5	Water Ten 4/7 4/9 4/11 Turbidity	1 4/13 4/	15 4/17 4	1/19 4/21	4/23 4/25	4/27	
3/24 3/26 3/28 80 75 70 60 55 3/24 3/26 3/28	3/30 4/1 4/3 4/5	Water Ten 4/7 4/9 4/11 Turbidity /5 4/7 4/9 4/2	1 4/13 4/	15 4/17 4	1/19 4/21	4/23 4/25	4/27	
3/24 3/26 3/28 80 75 70 66 55 3/24 3/26 3/28 1000 800 800 0 3/24 3/26 3/28 6.8 6.6 6.6 6.8 6.6 6.4 6.2	3/30 4/1 4/3 4/5	Water Ten 4/7 4/9 4/11 Turbidity /5 4/7 4/9 4/2	1 4/13 4/	15 4/17 4	1/19 4/21	4/23 4/25	4/27	
3/24 3/26 3/28 80 75 70 66 80 80 80 80 80 80 80 80 80 80 80 3/24 3/26 3/28	3/30 4/1 4/3 4/5	Water Ten Turbidity /5 4/7 4/9 4/3	1 4/13 4/ 11 4/13 4	15 4/17 4	1/19 4/21	4/23 4/25	4/27	
3/24 3/26 3/28 80 75 70 70 66 55 3/24 3/26 3/28 1000 800 600 400 200 3/24 3/26 3/2	3/30 4/1 4/3 4/5	Water Ten 4/7 4/9 4/11 Turbidity /5 4/7 4/9 4/1	1 4/13 4/ 1 4/13 4/	15 4/17 4	4/19 4/21	4/23 4/25 4/23 4/25	4/27	
3/24 3/26 3/28 80 75 70 66 60 800 800 600 400 200 3/24 3/26 3/28 4 6.8 6.6 6.2 6.0 3/24 3/26 3/28	3/30 4/1 4/3 4/5	Water Ten Turbidity /5 4/7 4/9 4/3	1 4/13 4/ 1 4/13 4/	15 4/17 4	4/19 4/21	4/23 4/25 4/23 4/25	4/27	
3/24 3/26 3/28 80 75 70 66 60 800 800 600 400 200 3/24 3/26 3/28 4 6.8 6.6 6.2 6.0 3/24 3/26 3/28	3/30 4/1 4/3 4/5	Water Ten 4/7 4/9 4/11 Turbidity /5 4/7 4/9 4/1	1 4/13 4/ 1 4/13 4/	15 4/17 4	4/19 4/21	4/23 4/25 4/23 4/25	4/27	
3/24 3/26 3/28 80 75 70 70 66 60 800 600 400 0 3/24 3/26 3/28 6.8 6.4 6.2 6.0 3/24 3/26 3/28	3/30 4/1 4/3 4/5	Water Ten 4/7 4/9 4/11 Turbidity /5 4/7 4/9 4/1	1 4/13 4/ 1 4/13 4/	15 4/17 4	4/19 4/21	4/23 4/25 4/23 4/25	4/27	

4/1

SCDHEC in-stream standard: Daily average not less than 5 mg/L with a low of 4 mg/L

Dissolved Oxygen

4/3

4/5

4/7

9 -6 -3 -

3/24

3/26

3/28

3/30

4/11

4/13

4/15

4/17

4/19

4/9

Gills Creek B (March 24, 2021 - April 27, 2021)

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	Sample 2		Sample 3		Sample 4	
Analyte (units)	4/22,	/2021						
	Time	Results	Time	Results	Time	Results	Time	Results
Escherichia coli (MPN/100mL)	12:27	20						
Total Suspended Solids (mg/L)	12:27	27.8						
Total Phosphorus (mg/L)								
Total Nitrogen (mg/L)								

Notes: Sample 1 was collected during dry weather conditions.





Gills Creek C (March 24, 2021 - April 27, 2021)

		CONTINUOUS	SUMMARY STATISTICS					
PARAMETER	DESCRIPTION	WATER QUALITY PARAMETERS:	MINIMUM OBSERVED	MAXIMUM OBSERVED	MEDIAN OBSERVED	MEAN OBSERVED	STANDARE DEVIATION	
STREAM NAME:	Gills Creek	STAGE (FT):	2.3	9.7	3.7	4.0	1.4	
LOCATION:	Bluff Road bridge	TEMPERATURE (0E)	00	70	00	00		
ADDRESS:	3009 Bluff Rd. Columbia, SC 29209	TEMPERATURE (°F):	60	76	68	68	3	
COORDINATES:	33.948043, -80.9889							
TMDL/IMPAIRMENT:	Fecal & Dissolved Oxygen	TURBIDITY (NTU):	2	160	3	4	8	
NEIGHBORING LANDUSE:	Residential and commercial	pH:	6.4	6.9	6.7	6.7	0.1	
APPROX. DRAINAGE AREA:	64 square miles	рп.	0.4	6.9	6.7	6.7	0.1	
SPATIAL LOCATION:	Most downstream site	SPECIFIC						
TOTAL NO. STORMS OVER 0.1 INCH:	7	CONDUCTIVITY (mS/cm):	0.038	0.058	0.042	0.043	0.002	
MAX. DAILY RAINFALL:	0.69 inches	DISSOLVED						
TOTAL RAINFALL (FOR PERIOD):	2.3 inches	OXYGEN (mg/L):	7.8	9.7	8.6	8.7	0.4	
14		Stage & Rain	fall				0.0	
80 75	3/30 4/1 4/3 4/5	4/7 4/9 4/11 Water Tem		15 4/17 4,	/19 4/21	4/23 4/25	0.5 0.5 1.0 1.5 2.0	
70 66 60 55 3/24 3/26 3/28	3/30 4/1 4/3 4/9	5 4/7 4/9 4/1	1 4/13 4/	15 4/17	4/19 4/21	4/23 4/25	4/27	
200		Turbidity						
E 150 50 0								
3/24 3/26 3/2	8 3/30 4/1 4/3 4	./5 4/7 4/9 4/	11 4/13 4	4/15 4/17	4/19 4/21	4/23 4/25	4/27	
7.0		рН						
五 6.8 五 6.6	mm m	mm	~~~	~~~			✓	
6.4								
3/24 3/26 3/28	3/30 4/1 4/3 4/	5 4/7 4/9 4/1	11 4/13 4,	/15 4/17	4/19 4/21	4/23 4/25	4/27	
		Specific Cond	ductivity					
0.06 E 0.05	<u> </u>					š		
§ 0.05 № 0.04			<u> </u>	 	++-	<u>^</u> ^-	_	
0.03	2/20 4/5 1/2	/5 4/7 1/2	442	1/45	4/10 1/21	4/22 1/2-	4/27	
3/24 3/26 3/28	3 3/30 4/1 4/3 4	/5 4/7 4/9 4/	11 4/13 4	1/15 4/17	4/19 4/21	4/23 4/25	4/27	
	ard: Daily average not less than 5 mg/L wit	h a low of 4 mg/L Dissalu	ed Oxygen			4 mg/L (SCDHFC I	ow Standard)	
	ard: Daily average not less than 5 mg/L wit	h a low of 4 mg/L Dissolv	ed Oxygen			4 mg/L (SCDHEC L	ow Standard)	

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

4/3

4/5

4/7

4/1

3/26

3/24

3/28

3/30

4/11

4/9

4/13

4/15

4/17

4/19

4/21

4/23

4/25

4/27

Gills Creek C (March 24, 2021 - April 27, 2021)

Explanation of Statistics:

MINIMUM OBSERVED	The minimum of the values recorded by the datasonde in 15 minute intervals.
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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	Sam	ple 3	Sam	ple 4
Analyte (units)	4/22,	/2021						
	Time	Results	Time	Results	Time	Results	Time	Results
Escherichia coli (MPN/100mL)	12:55	194						
Total Suspended Solids (mg/L)	12:55	5.1						
Total Phosphorus (mg/L)								
Total Nitrogen (mg/L)								

Notes: Sample 1 was collected during dry weather conditions.