Gills Creek Monitoring Sites Monitoring Data Summary for November 1st, 2018 – December 5th, 2018

Data Gaps

- The GILA station was visited on November 8th due to abnormal DO and temperature readings and the sonde was removed from the creek to investigate the issue. After discussions with the support team at YSI, it was determined that the DO sensor was fouling, and the probe needed to be sent to them for maintenance. The GILA sonde was redeployed with a temporary DO probe. All data was deleted from the dataset for the few hours on November 8th when the sonde was not in the water.
- The GILC and GILB stations did not have any interruptions in the data during this monitoring period.

SCDHEC Standards

- None of the Gills Creek stations recorded a pH reading outside of the acceptable SCDHEC range of 6 to 8.5.
- The GILA station recorded an average DO value of 10.3 mg/L, the GILB station recorded an average DO value of 9.8 mg/L, and the GILC station recorded an average DO value of 8.5 mg/L which are all 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 8.7 mg/L, 8.5 mg/L, and 6.4 mg/L, respectively. None of the Gills Creek stations recorded any DO values below the SCDHEC instantaneous minimum standard of 4.0 mg/L.

Storm Events

- The GILA station recorded 10 storm events resulting in approximately 8.6 inches of rainfall. The GILB station recorded 9 storms that resulted in approximately 7.6 inches of rainfall. The GILC station recorded 8 storms that resulted in approximately 7.8 inches of rainfall.
- The monitored water quality parameters in the Gills Creek watershed all displayed typical storm event response patterns during the recorded storm events.
- The maximum antecedent dry time since the last significant precipitation event (at least 0.1 inches) was approximately 8.4 days, at all three of the Gills Creek monitoring sites, prior to the storm event on November 23rd.

Potential Illicit Discharges and Abnormal Events

• There were no potential illicit discharges or abnormal events in Gills Creek during this monitoring period.

Flow Measurements

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





Gills Creek A (November 1, 2018 -- December 5, 2018)

		CONTINUOUS	SUMMARY STATISTICS					
PARAMETER	DESCRIPTION	WATER QUALITY PARAMETERS:	MINIMUM OBSERVED	MAXIMUM OBSERVED	MEDIAN OBSERVED	MEAN OBSERVED	STANDARD DEVIATION	
STREAM NAME:	Gills Creek	STAGE (FT):	2.2	6.1	2.7	2.8	0.6	
LOCATION:	Forest Drive Bridge	TEMPERATURE	40	67	54	50	F	
ADDRESS:	4840 Forest Drive, Columbia, SC 29206	(°F):	49	67	54	50	5	
COORDINATES:	34.019826, -80.963566		а	301	11	15	19	
TMDL/IMPAIRMENT:	Fecal & Dissolved Oxygen		0	001		10	10	
NEIGHBORING LANDUSE:	Residential and commercial	pH:	6.2	6.8	6.4	6.4	0.1	
APPROX. DRAINAGE AREA:	48 square miles	·	-		-	-		
SPATIAL LOCATION:	Most upstream site	SPECIFIC	0.03	0.06	0.045	0.047	0.004	
TOTAL NO. STORMS OVER 0.1 INCH:	10	(mS/cm):	0.03	0.00	0.043	0.047	0.004	
MAX. DAILY RAINFALL:	2.9 inches	DISSOLVED	8.7	11.2	10.6	10.3	0.6	
(FOR PERIOD):	8.6 inches	OXYGEN (mg/L):						
		Stage & Rain	fall					
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P 225 150								
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		Specific Con	ductivity					
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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 Lo	ow Standard)	
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11/1 11/3 11/5	5 11/7 11/9 11/11 11	/13 11/15 11/17 11	/19 11/21 :	11/23 11/25	11/27 11/29	12/1 12/3	12/5	

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

Gills Creek A (November 1, 2018 -- December 5, 2018)

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:





Gills Creek B (November 1, 2018 -- December 5, 2018)

DADAMETED	DECODIDITION			SUN	SUMMARY STATISTICS			
PARAMETER	DESCRIPTION	PARAMETERS:	MINIMUM OBSERVED	MAXIMUM OBSERVED	MEDIAN OBSERVED	MEAN OBSERVED	STANDARD DEVIATION	
STREAM NAME:	Gills Creek	STAGE (FT):	3.1	8.5	3.6	3.9	0.8	
LOCATION:	Devine Street bridge	TEMPERATURE	40	07		57	r.	
ADDRESS:	4716 Devine Street Columbia, SC 29209	(°F):	48	67	55	57	5	
COORDINATES:	33.989656, -80.97433	TURBIDITY (NTU):	5	102	11	14	40	
TMDL/IMPAIRMENT:	Fecal & Dissolved Oxygen						10	
NEIGHBORING LANDUSE:	Residential and commercial		6.2	6.9	6.3	6.4	0.1	
APPROX. DRAINAGE AREA:	59 square miles	μ η .	0.2	0.0	0.0	0.4	0.1	
SPATIAL LOCATION:	Middle site	SPECIFIC						
TOTAL NO. STORMS OVER 0.1 INCH:	9	CONDUCTIVITY (mS/cm):	0.032	0.057	0.049	0.049	0.003	
MAX. DAILY RAINFALL:	2.8 inches	DISSOLVED	0.5	40.7	40.0			
TOTAL RAINFALL (FOR PERIOD):	7.6 inches	OXYGEN (mg/L):	8.5	10.7	10.0	9.8	0.6	
Stage & Rainfall								













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

Gills Creek B (November 1, 2018 -- December 5, 2018)

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:





Gills Creek C (November 1, 2018 -- December 5, 2018)

		CONTINUOUS	SUMMARY STATISTICS				
PARAMETER	DESCRIPTION	WATER QUALITY PARAMETERS:	MINIMUM OBSERVED	MAXIMUM OBSERVED	MEDIAN OBSERVED	MEAN OBSERVED	STANDARD DEVIATION
STREAM NAME:	Gills Creek	STAGE (FT):	3.4	9.9	4.4	5.1	1.7
LOCATION:	Bluff Road bridge	TEMPERATURE	45	07		50	0
ADDRESS:	3009 Bluff Rd. Columbia, SC 29209	(°F):	45	67	55	56	б
COORDINATES:	33.948043, -80.9889		_				
TMDL/IMPAIRMENT:	Fecal & Dissolved Oxygen	TURBIDITY (NTU):	3	293	12	16	16
NEIGHBORING LANDUSE:	Residential and commercial		6.4	6.5	6.2	6.2	0.1
APPROX. DRAINAGE AREA:	64 square miles	pn.	0.1	0.5	0.5	0.5	0.1
SPATIAL LOCATION:	Most downstream site	SPECIFIC					
TOTAL NO. STORMS OVER 0.1 INCH:	8	CONDUCTIVITY (mS/cm):	0.04	0.074	0.061	0.059	0.005
MAX. DAILY RAINFALL:	2.74 inches	DISSOLVED	6.4	10.5	8.5	8.5	1.0
TOTAL RAINFALL (FOR PERIOD):	7.8 inches	OXYGEN (mg/L):	0.4	10.5			













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

Gills Creek C (November 1, 2018-- December 5, 2018)

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: