Smith Branch Monitoring Sites

Monitoring Data Summary for March 26th, 2020 – April 29th, 2020

Data Gaps

- The SMIA station experienced a brief period of fouling turbidity data from April 3rd-5th so this period was removed from the dataset.
- All SMIB the specific conductivity sensor became unsubmerged throughout the monitoring period. Specific conductivity data between April 9th-12th, April 16th-19th, and April 22nd-29th was deleted accordingly.

SCDHEC Standards

- The SMIA and SMIB stations did not record any pH values outside of the acceptable SCDHEC range of 6 to 8.5.
- The SMIA station recorded an average DO concentration of 8.0 mg/L and the SMIB station recorded an average DO concentration of 8.7 mg/L, which are both above the SCDHEC daily average standard of 5 mg/L.
- The minimum DO concentration recorded at the SMIA station was 6.7 mg/L and 7.2 mg/L at the SMIB station, which are above the SCDHEC discrete minimum standard of 4 mg/L.

Storm Events

- The SMIA rain gauge recorded 1 storm (at least 0.1 inches) in this monitoring period resulting in 0.3 inches of precipitation. The SMIB rain gauge recorded 5 storms (at least 0.1 inches) resulting in 2.8 inches of precipitation.
- The SMIA and SMIB monitoring stations recorded typical water quality responses to the storm events observed during this monitoring period.

Potential Illicit Discharges and Abnormal Events

- There were no potential illicit discharges or abnormal events observed at the SMIA or SMIB stations during this monitoring period.

Flow Measurements

- No flow measurements were taken in this watershed during this monitoring period.

City of Columbia, SC Stormwater Management
Partnering for clean waterways

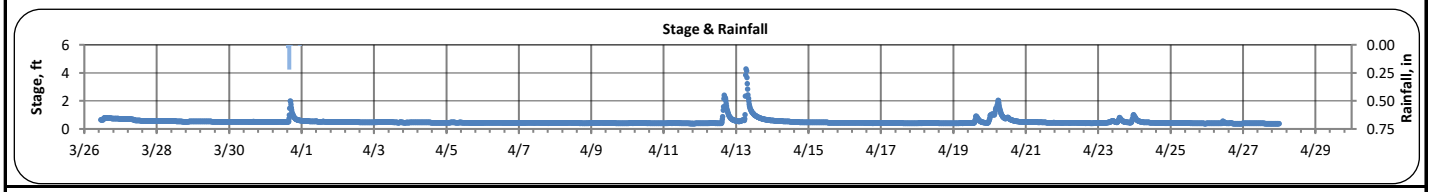
Continuous Water Quality Monitoring Periodic Report

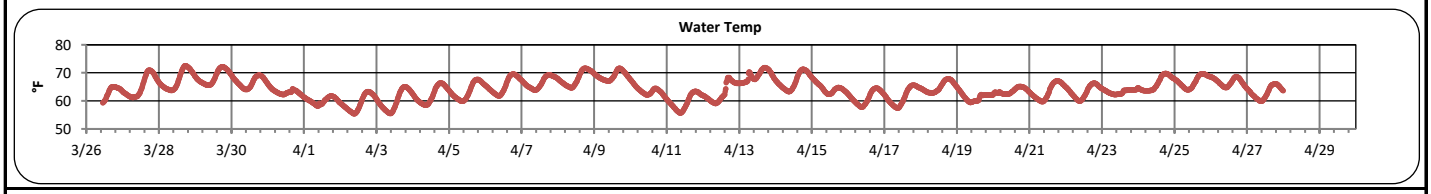
WOOLPERT

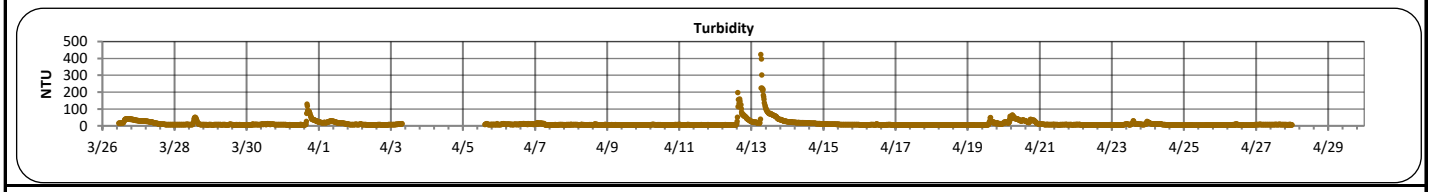
Smith Branch A (March 26, 2020 - April 29, 2020)

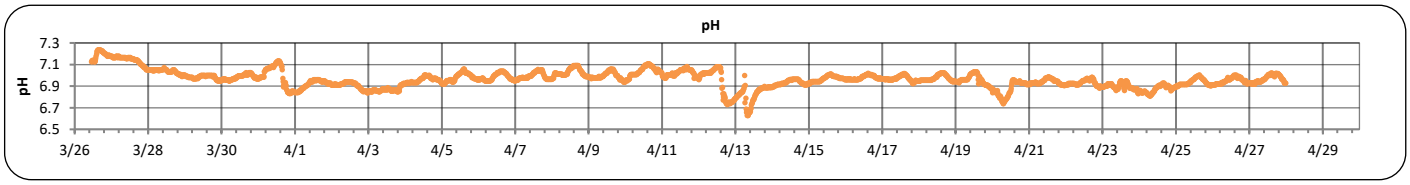
PARAMETER	DESCRIPTION
STREAM NAME:	Smith Branch
LOCATION:	Earlewood Park
ADDRESS:	1111 Parkside Dr Columbia, SC 29201
COORDINATES:	34.027289,-81.04265
TMDL/IMPAIRMENT:	Fecal Coliform
NEIGHBORING LANDUSE:	Residential and commercial
SPATIAL LOCATION:	Most upstream site
TOTAL NO. STORMS OVER 0.1 INCH:	1
MAX. DAILY RAINFALL:	0.3 inches
TOTAL RAINFALL (FOR PERIOD):	0.3 inches

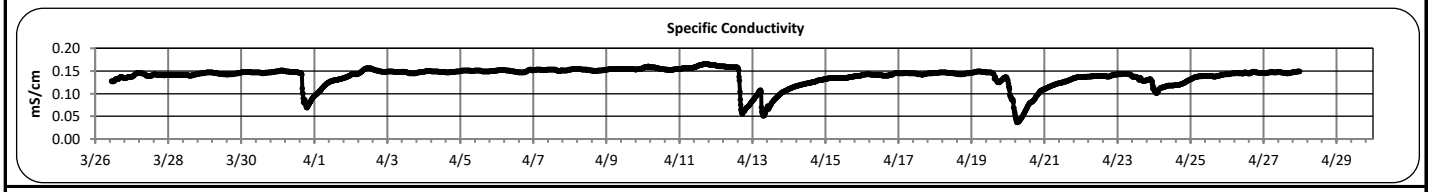
CONTINUOUS WATER QUALITY PARAMETERS:	SUMMARY STATISTICS				
	MINIMUM OBSERVED	MAXIMUM OBSERVED	MEDIAN OBSERVED	MEAN OBSERVED	STANDARD DEVIATION
STAGE (FT):	0.4	4.3	0.5	0.5	0.2
TEMPERATURE (°F):	55	73	64	64	4
TURBIDITY (NTU):	5	425	8	13	21
pH:	6.6	7.2	7.0	7.0	0.1
SPECIFIC CONDUCTIVITY (mS/cm):	0.037	0.165	0.145	0.138	0.021
DISSOLVED OXYGEN (mg/L):	6.7	9.6	8.0	8.0	0.6

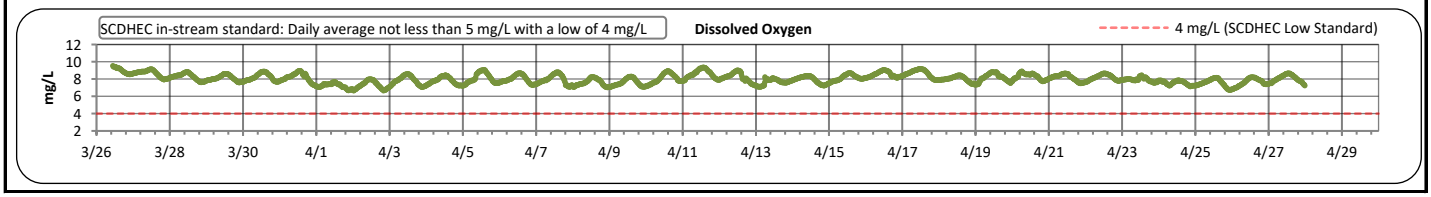












Note: Data gaps appear when the sonde is removed for calibration or when the flow depth is below the sensors

REPORT GENERATED ON 6/4/2020

Continuous Water Quality
Monitoring Periodic Report

Smith Branch A (March 26, 2020 - April 29, 2020)

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.

Grab Sample Data:

Analyte (units)	Sample 1		Sample 2		Sample 3		Sample 4		Sample 5	
	4/13/2020		4/20/2020							
	Time	Result	Time	Result	Time	Result	Time	Result	Time	Result
Escherichia coli (MPN/100mL)	10:16	6896	9:05	3,870						
Total Suspended Solids (mg/L)	10:16	54.3	9:05	20.4						
Total Phosphorus (mg/L)	10:16	0.23								
Total Nitrogen (mg/L)	10:16	1.3								

Note: Samples 1 and 2 were collected during wet weather conditions.

City of Columbia, SC Stormwater Management — Partnering for clean waterways

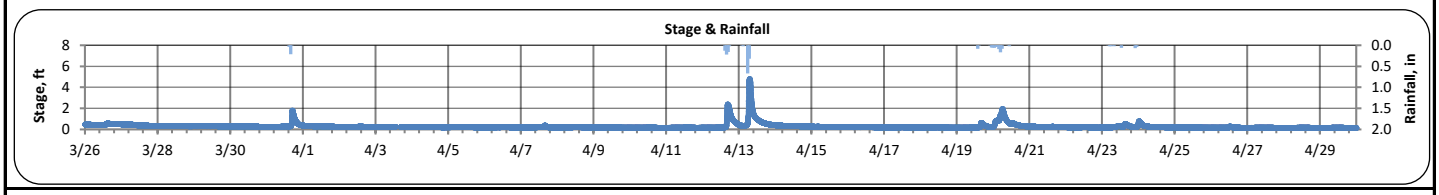
Continuous Water Quality Monitoring Periodic Report

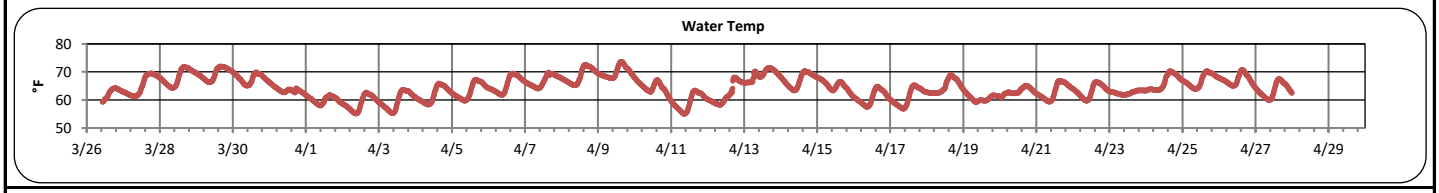
WOOLPERT

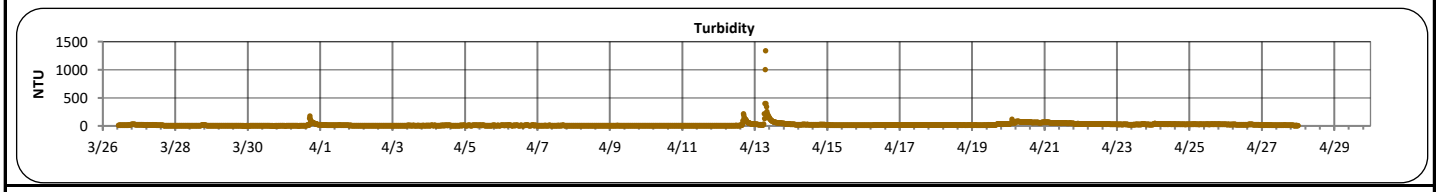
Smith Branch B (March 26, 2020 - April 29, 2020)

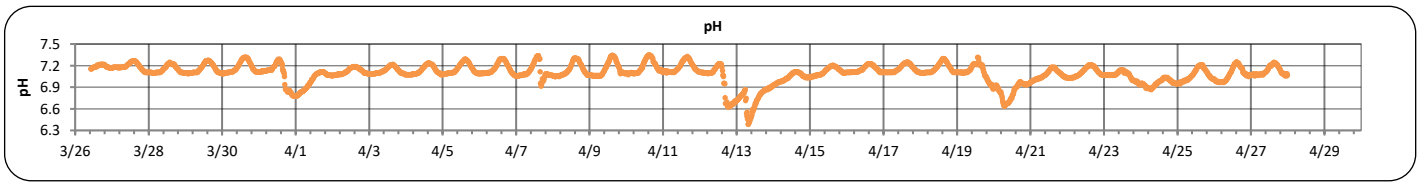
PARAMETER	DESCRIPTION
STREAM NAME:	Smith Branch
LOCATION:	Off Mountain Drive
NEAREST ADDRESS:	3950 Clement Rd Columbia, SC 29203
COORDINATES:	34.037933,-81.0591
TMDL/IMPAIRMENT:	Fecal Coliform
NEIGHBORING LANDUSE:	Residential and commercial
SPATIAL LOCATION:	Most Downstream Site
TOTAL NO. STORMS OVER 0.1 INCH:	5
MAX. DAILY RAINFALL:	1.0 inches
TOTAL RAINFALL (FOR PERIOD):	2.8 inches

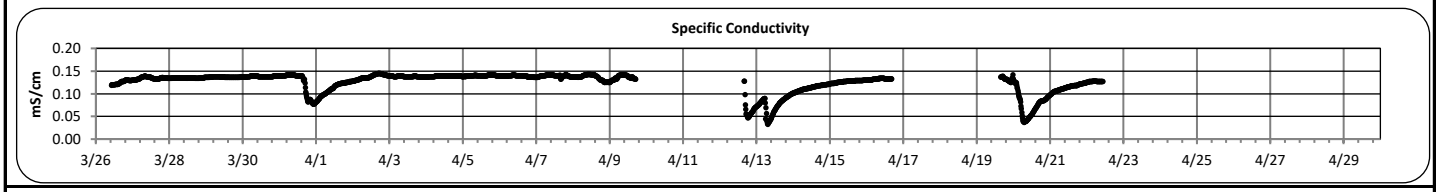
CONTINUOUS WATER QUALITY PARAMETERS:	SUMMARY STATISTICS				
	MINIMUM OBSERVED	MAXIMUM OBSERVED	MEDIAN OBSERVED	MEAN OBSERVED	STANDARD DEVIATION
STAGE (FT):	0.1	4.8	0.2	0.3	0.3
TEMPERATURE (°F):	55	74	64	64	4
TURBIDITY (NTU):	4	1342	14	21	37
pH:	6.4	7.4	7.1	7.1	0.1
SPECIFIC CONDUCTIVITY (mS/cm):	0.033	0.145	0.135	0.125	0.022
DISSOLVED OXYGEN (mg/L):	7.2	10.5	8.7	8.7	0.6

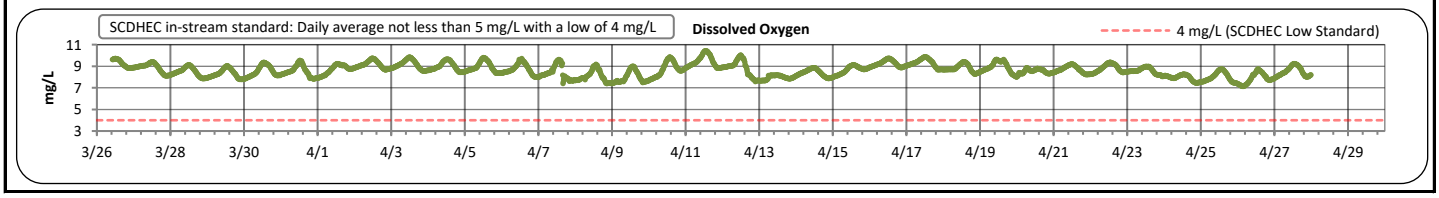












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Continuous Water Quality
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Smith Branch B (March 26, 2020 - April 29, 2020)

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Sampled Data:

Analyte (units)	Sample 1		Sample 2		Sample 3		Sample 4	
	4/13/2020							
	Time	Result	Time	Result	Time	Result	Time	Result
Escherichia coli (MPN/100mL)	10:30	8704						
Total Suspended Solids (mg/L)	10:30	79.6						
Total Phosphorus (mg/L)	10:30	0.28						
Total Nitrogen (mg/L)	10:30	1.61						

Note: Sample 1 was collected during wet weather conditions.