# Smith Branch Monitoring Sites Monitoring Data Summary for January 17<sup>th</sup>, 2020 – February 19<sup>th</sup>, 2020

#### Data Gaps

- The SMIA station did not experience any interruptions in the water quality data during this monitoring period.
- The SMIB DO and turbidity sensors became buried in sediment during the February 13<sup>th</sup> storm event which resulted in invalid DO and turbidity readings. The DO and turbidity data were removed from the dataset from February 13<sup>th</sup> until the end of the deployment period.
- At the SMIA and SMIB stations, the website experienced reporting issues on January 18<sup>th</sup>-19<sup>th</sup> so there is no CS451 stage data recorded during that brief period.

#### 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 10.1 mg/L and the SMIB station recorded an average DO concentration of 10.3 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 8.4 mg/L and 7 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 8 storms (at least 0.1 inches) in this monitoring period resulting in 5.9 inches of precipitation. The SMIB rain gauge recorded 8 storms (at least 0.1 inches) resulting in 6.1 inches of precipitation.
- The SMIA monitoring station recorded typical water quality responses to the storm events observed during this monitoring period.
- The maximum antecedent dry time since the last significant precipitation event (at least 0.1 inch) was approximately 6.4 days in the Smith Branch watershed, occurring prior to the February 13<sup>th</sup> storm event.

#### Potential Illicit Discharges and Abnormal Events

• There were no potential illicit discharges or abnormal events observed at the SMIA station during this monitoring period.

#### Flow Measurements

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





#### Smith Branch A (January 17, 2020 - February 19, 2020)



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

### Smith Branch A (January 17, 2020 - February 19, 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	
	2/6/2020							
	Time	Result	Time	Result	Time	Result	Time	Result
Escherichia coli (MPN/100mL)	10:30	2306						
Total Suspended Solids (mg/L)	10:30	17.5						
Total Phosphorus (mg/L)	10:30	0.061						
Total Nitrogen (mg/L)	10:30	1.11						

Note: This sample was collected during wet weather conditions.





#### Smith Branch B (January 17, 2020 - February 19, 2020)



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

### Smith Branch B (January 17, 2020 - February 19, 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.

#### Sampled Data:

Analyte (units)	Sample 1		Sample 2		Sample 3		Sample 4	
	2/6/2020							
	Time	Result	Time	Result	Time	Result	Time	Result
Escherichia coli (MPN/100mL)	11:05	2200						
Total Suspended Solids (mg/L)	11:05	22.7						
Total Phosphorus (mg/L)	11:05	0.071						
Total Nitrogen (mg/L)	11:05	0.81						

Note: This sample was collected during wet weather conditions.