Rocky Branch Monitoring Sites Monitoring Data Summary for December 6th, 2018 – January 8th, 2019

Data Gaps

• During this monitoring period, both of the Rocky Branch stations experienced several periods of fouling turbidity data due to excessive buildup of sediment covering the turbidity sensor. An effort was made to salvage these periods of fouling turbidity during the data corrections process; however, the attempt to apply corrections to these periods was not appropriate or reasonable so the data was removed from the dataset.

SCDHEC Standards

- Neither of the Rocky Branch monitoring stations recorded pH values outside of the acceptable SCDHEC range of 6 to 8.5 during this monitoring period.
- The ROCA and ROCB stations recorded average DO concentrations of 9 mg/L and 9.5 mg/L, respectively, which are both above the SCDHEC daily average minimum standard of 5 mg/L.
- The minimum DO concentration recorded during this deployment period was 7.7 mg/L at ROCA and 7.8 mg/L at ROCB. Neither of these stations recorded DO values below the SCDHEC discrete minimum standard of 4.0 mg/L.

Storm Events

- The ROCA station recorded 9 storm events during this monitoring period, resulting in 7.2 inches of total precipitation. The number of storms and amount of precipitation cannot be accurately computed for the ROCB station because of damage to the ROCB rain gauge (see further explanation in the *Potential Illicit Discharges and Abnormal Events* section below).
- Both ROCA and ROCB stations exhibited typical responses to storm events during this monitoring period.
- The maximum antecedent dry time since the last significant precipitation event (at least 0.1 inches) was approximately 7.5 days at the ROCA station prior to the storm event on December 28th. The ROCB rain gauge was damaged, which prevented the rain gauge from recording some storm events; therefore, an accurate length of dry time cannot be computed (see further explanation in the *Potential Illicit Discharges and Abnormal Events* section below).

Potential Illicit Discharges and Abnormal Events

- During the previous deployment period, it was noticed on the monitoring website that the ROCB rain gauge had stopped recording. The site was visited on December 13th to investigate this issue and it was determined that the ROCB rain gauge had been vandalized. The wires connecting the rain gauge to the data logger had been tampered with, preventing the rain gauge from recording precipitation. Immediate action was taken to fix the rain gauge.
- Several slightly elevated specific conductivity levels occurred at both Rocky Branch monitoring stations.
 - At ROCA, these specific conductivity spikes took place on: December 7th, 11th, 12th, 21st, January 3rd, and 8th.
 - At ROCB, these specific conductivity spikes took place on: December 7th, 10th, 11th, 22nd, 23rd, 27th, 29th, January 3rd, 5th, 6th, and overnight 7th-8th.

Flow Measurements

- No flow measurements were taken at the ROCA or ROCB stations during this monitoring period.
- An IQ validation measurement was taken on January 4th at the Cookout station, located upstream of the Rocky Branch water quality monitoring stations.





Rocky Branch A (December 6, 2018 -- January 8, 2019)



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

Rocky Branch A (December 6, 2018 -- January 8, 2019)

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	
	12/6/2018		12/20/2018		12/20/2018			
	Time	Result	Time	Result	Time	Result	Time	Result
Escherichia coli (MPN/100mL)	11:34	436	11:21	31060	11:41	18420		
Total Suspended Solids (mg/L)								
Total Phosphorus (mg/L)								
Total Nitrogen (mg/L)								

Note:

Both samples collected were collected during dry weather conditions.





Rocky Branch B (December 6, 2018 -- January 8, 2019)



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

Rocky Branch B (December 6, 2018 -- January 8, 2019)

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	
	12/6/2018		12/20/2018		12/20/2018			
	Time	Result	Time	Result	Time	Result	Time	Result
Escherichia coli (MPN/100mL)	11:14	1008	10:56	1126	11:30	2374		
Total Suspended Solids (mg/L)								
Total Phosphorus (mg/L)								
Total Nitrogen (mg/L)								

Note:

Both samples collected were collected during dry weather conditions.