

# Rocky Branch Monitoring Sites

## Monitoring Data Summary for January 10<sup>th</sup>, 2019 – February 13<sup>th</sup>, 2019

### *Data Gaps*

- A brief period of fouling turbidity data, occurring from January 24<sup>th</sup>-25<sup>th</sup>, was removed from the KINA dataset.
- No interruptions were observed in the water quality data during this monitoring period.
- The website experienced reporting issues with the pressure transducers at ROCA and ROCB from January 19<sup>th</sup>-20<sup>th</sup>, therefore there is no data record during that period.

### *SCDHEC Standards*

- Both the ROCA and ROCB stations recorded pH values that were within the acceptable SCDHEC range of 6 to 8.5 during this monitoring period.
- The ROCA and ROCB stations recorded average DO concentrations of 9.2 mg/L and 10.2 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 7.9 mg/L at ROCB. Neither of the Rocky Branch monitoring stations recorded DO values below the SCDHEC discrete minimum standard of 4.0 mg/L.

### *Storm Events*

- The ROCA station recorded 4 storm events during this monitoring period, resulting in 2.7 inches of total precipitation. The ROCB station recorded 3 storm events during this monitoring period, resulting in 2.5 inches of total precipitation.
- 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 17.8 days at the ROCA station prior to the storm event on February 11<sup>th</sup>. The maximum antecedent dry time at the ROCB station was approximately 21.7 days occurring after the storm event on January 24<sup>th</sup> until the end of the deployment period.

### *Potential Illicit Discharges and Abnormal Events*

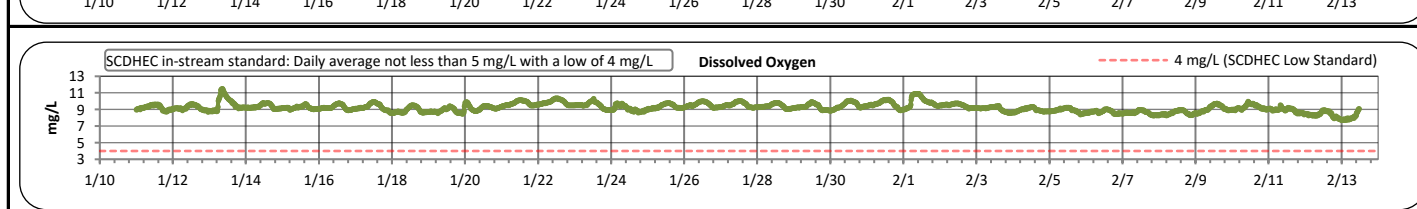
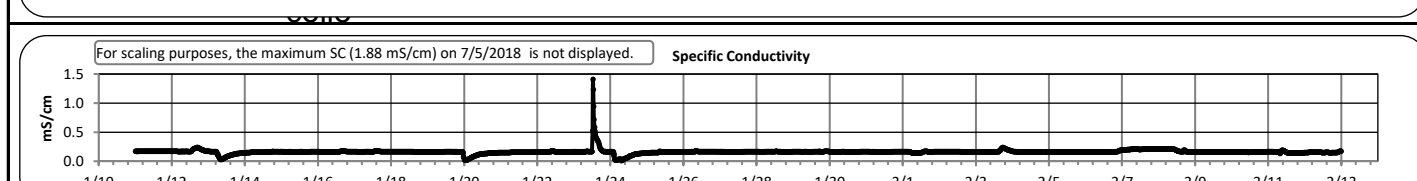
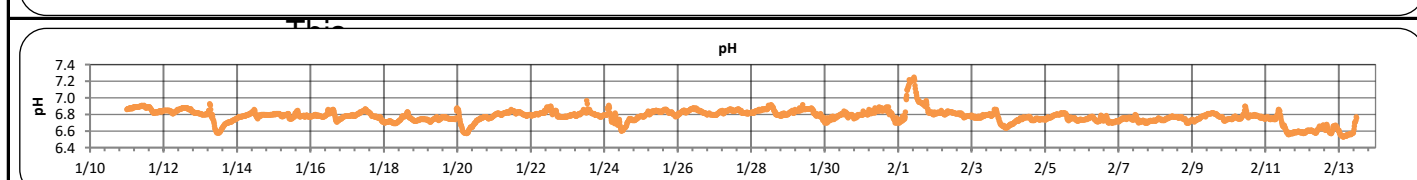
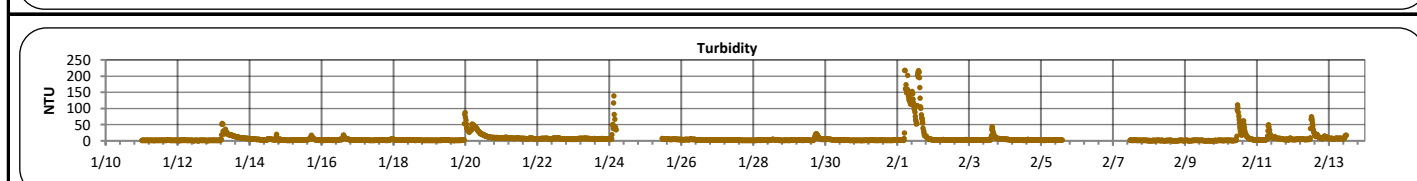
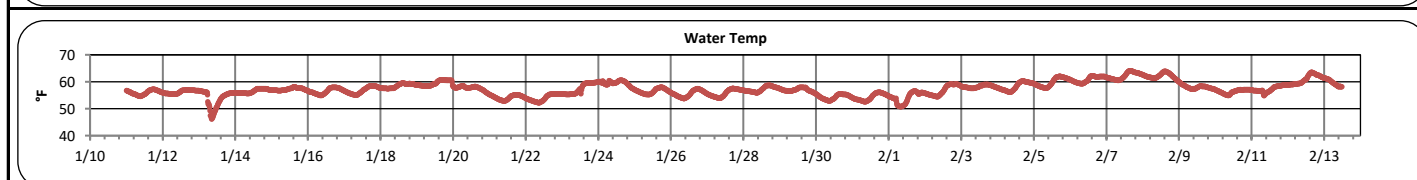
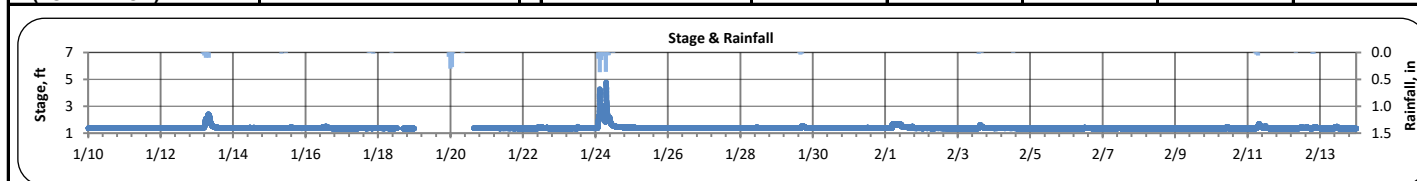
- There was a water main break on February 1<sup>st</sup> that resulted in elevated stage, turbidity, pH, DO, and flow and a decrease in specific conductivity at both of the Rocky Branch station.
- Extremely high specific conductivity was recorded on January 23<sup>rd</sup>, with a maximum value of 1.5 mS/cm. This was possibly caused by maintenance activity at Maxcy Greg pool.
- Several slightly elevated specific conductivity levels occurred at both Rocky Branch monitoring stations.
  - At ROCA, these specific conductivity spikes took place on: January 12<sup>th</sup>, 16<sup>th</sup>, 17<sup>th</sup>, 22<sup>nd</sup>, 23<sup>rd</sup>, 25<sup>th</sup>, 26<sup>th</sup>, February 3<sup>rd</sup> (occurred during a rain event), 7<sup>th</sup>-8<sup>th</sup>, 11<sup>th</sup>, 12<sup>th</sup>-13<sup>th</sup>.
  - At ROCB, these specific conductivity spikes took place on: January 12<sup>th</sup>-13<sup>th</sup>, 15<sup>th</sup>-16<sup>th</sup>, 18<sup>th</sup>, 22<sup>nd</sup>, 23<sup>rd</sup>, 25<sup>th</sup>, 26<sup>th</sup>-27<sup>th</sup>, 30<sup>th</sup>-31<sup>st</sup>, February 4<sup>th</sup>, 6<sup>th</sup>, and 12<sup>th</sup>-13<sup>th</sup>.

### *Flow Measurements*

- No flow measurements were taken at the ROCA or ROCB stations during this monitoring period.

**Rocky Branch A (January 10, 2019 -- February 13, 2019)**

PARAMETER	DESCRIPTION	CONTINUOUS WATER QUALITY PARAMETERS:	SUMMARY STATISTICS				
			MINIMUM OBSERVED	MAXIMUM OBSERVED	MEDIAN OBSERVED	MEAN OBSERVED	STANDARD DEVIATION
STREAM NAME:	Rocky Branch	STAGE (FT):	1.4	4.8	1.4	1.4	0.1
LOCATION:	Maxcy Gregg Park	TEMPERATURE (°F):	46	64	57	57	3
ADDRESS:	1650 Park Circle Columbia, SC 29201	TURBIDITY (NTU):	1	218	3	8	20
COORDINATES:	33.995864, -81.021842	pH:	6.5	7.3	6.8	6.8	0.1
TMDL/IMPAIRMENT:	Fecal Coliform	SPECIFIC CONDUCTIVITY (mS/cm):	0.015	1.41	0.164	0.163	0.046
NEIGHBORING LANDUSE:	Residential and commercial	DISSOLVED OXYGEN (mg/L):	7.7	11.5	9.2	9.2	0.5
SPATIAL LOCATION:	Most upstream site						
TOTAL NO. STORMS OVER 0.1 INCH:	4						
MAX. DAILY RAINFALL:	1.2 inches						
TOTAL RAINFALL (FOR PERIOD):	0.4	320					



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

**Continuous Water Quality  
Monitoring Periodic Report**

**Rocky Branch A (Jan 10, 2019 -- February 13, 2019)**

**Explanation of Statistics:**

<b>MINIMUM OBSERVED</b>	The minimum of the values recorded by the datasonde in 15 minute intervals.
<b>MAXIMUM OBSERVED</b>	The maximum of the values recorded by the datasonde in 15 minute intervals.
<b>MEDIAN OBSERVED</b>	The median of all the values recorded by the datasonde in 15 minute intervals.
<b>MEAN OBSERVED</b>	The average of all the values recorded by the datasonde in 15 minute intervals.
<b>STANDARD DEVIATION</b>	The standard deviation of all the values recorded by the datasonde in 15 minute intervals.

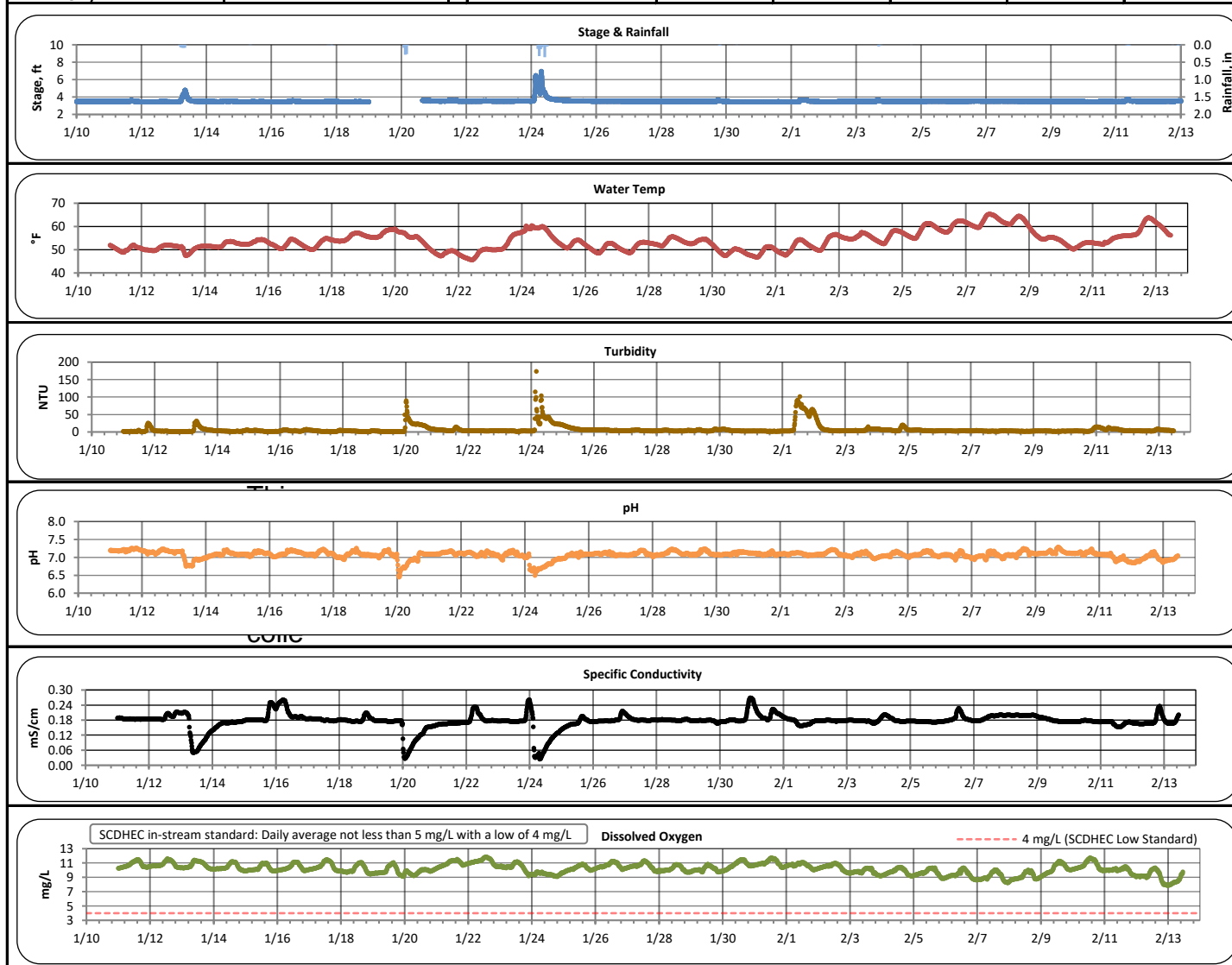
**Grab Sample Data:**

Analyte (units)	Sample 1		Sample 2		Sample 3		Sample 4	
	1/10/2019							
	Time	Result	Time	Result	Time	Result	Time	Result
<i>Escherichia coli</i> (MPN/100mL)	9:40	406						
Total Suspended Solids (mg/L)								
Total Phosphorus (mg/L)								
Total Nitrogen (mg/L)								

Note: This sample was collected during dry weather conditions.

**Rocky Branch B (January 10, 2019 -- February 13, 2019)**

PARAMETER	DESCRIPTION	CONTINUOUS WATER QUALITY PARAMETERS:	SUMMARY STATISTICS				
			MINIMUM OBSERVED	MAXIMUM OBSERVED	MEDIAN OBSERVED	MEAN OBSERVED	STANDARD DEVIATION
STREAM NAME:	Rocky Branch	STAGE (FT):	3.5	7.0	3.5	3.5	0.2
LOCATION:	Olympia Ave Crossing	TEMPERATURE (°F):	46	65	53	54	4
ADDRESS:	510 Heyward St Columbia, SC 29201	TURBIDITY (NTU):	1	174	4	8	12
COORDINATES:	33.982578, -81.035036	pH:	6.5	7.3	7.1	7.1	0.1
TMDL/IMPAIRMENT:	Fecal Coliform	SPECIFIC CONDUCTIVITY (mS/cm):	0.025	0.269	0.179	0.177	0.031
NEIGHBORING LANDUSE:	Residential and commercial	DISSOLVED OXYGEN (mg/L):	7.9	11.9	10.2	10.2	0.7
SPATIAL LOCATION:	Most Downstream Site						
TOTAL NO. STORMS OVER 0.1 INCH:	3						
MAX. DAILY RAINFALL:	1.2 inches						
TOTAL RAINFALL (FOR PERIOD):	0.4 320						



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

**Continuous Water Quality  
Monitoring Periodic Report**

**Rocky Branch B (Jan 10, 2019 -- February 13, 2019)**

**Explanation of Statistics:**

<b>MINIMUM OBSERVED</b>	The minimum of the values recorded by the datasonde in 15 minute intervals.
<b>MAXIMUM OBSERVED</b>	The maximum of the values recorded by the datasonde in 15 minute intervals.
<b>MEDIAN OBSERVED</b>	The median of all the values recorded by the datasonde in 15 minute intervals.
<b>MEAN OBSERVED</b>	The average of all the values recorded by the datasonde in 15 minute intervals.
<b>STANDARD DEVIATION</b>	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	
	1/10/2019							
	Time	Result	Time	Result	Time	Result	Time	Result
<i>Escherichia coli</i> (MPN/100mL)	9:56	320						
Total Suspended Solids (mg/L)								
Total Phosphorus (mg/L)								
Total Nitrogen (mg/L)								

Note: This sample was collected during dry weather conditions.