Rocky Branch Monitoring Sites Monitoring Data Summary for January 10th, 2019 – February 13th, 2019

Data Gaps

- A brief period of fouling turbidity data, occurring from January 24th-25th, 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 19th-20th, 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 11th. The maximum antecedent dry time at the ROCB station was approximately 21.7 days occurring after the storm event on January 24th until the end of the deployment period.

Potential Illicit Discharges and Abnormal Events

- There was a water main break on February 1st 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 23rd, 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.
 - O At ROCA, these specific conductivity spikes took place on: January 12th, 16th, 17th, 22nd, 23rd, 25th, 26th, February 3rd (occurred during a rain event), 7th-8th, 11th, 12th-13th.
 - O At ROCB, these specific conductivity spikes took place on: January 12th-13th, 15th-16th, 18th, 22nd, 23rd, 25th, 26th-27th, 30th-31st, February 4th, 6th, and 12th-13th.

Flow Measurements

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



Continuous Water Quality Monitoring Periodic Report



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

		CONTINUOUS	SUMMARY STATISTICS					
PARAMETER	DESCRIPTION	WATER QUALITY PARAMETERS:	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						
ADDRESS:	1650 Park Circle Columbia, SC 29201	(°F):	46	64	57	57	3	
COORDINATES:	33.995864, -81.021842	TURBIDITY (NTU):	1	218	3	8	20	
TMDL/IMPAIRMENT:	Fecal Coliform		•	210	6.8	6.8	0.1	
NEIGHBORING LANDUSE:	Residential and commercial	pH:	6.5	7.3				
SPATIAL LOCATION:	Most upstream site							
TOTAL NO. STORMS OVER 0.1 INCH:	4	SPECIFIC CONDUCTIVITY (mS/cm):	0.015					
MAX. DAILY RAINFALL:	1.2 inches	DISSOLVED	7.7	44.5	0.0		0.5	
TOTAL RAINFALL (FOR PERIOD):	0.4 320	OXYGEN (mg/L):	7.7	11.5	9.2	9.2	0.5	
		Stage & Raiı	nfall	•		•	•	
7 5		11					0.0	
2 tage, #							0.5	
1/10 1/12 1/14	1/16 1/18 1/20 1/2	22 1/24 1/26 1/2	8 1/30 2	/1 2/3	2/5 2/7	2/9 2/11	2/13	
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70			~		~~~		→	
μ 50 50		<u></u>						
1/10 1/12 1/14	1/16 1/18 1/20 1/	22 1/24 1/26 1/2	28 1/30 2	2/1 2/3	2/5 2/7	2/9 2/11	2/13	
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P 150 100 50		3					1	
1/10 1/12 1/1	4 1/16 1/18 1/20	1/22 1/24 1/26 1	/28 1/30	2/1 2/3	2/5 2/7	2/9 2/11	2/13	
	Thia							
7.4		pH						
7.2 ± 7.0 6.8				Alma,		-		
6.6								
1/10 1/12 1/14	1/16 1/18 1/20 1	/22 1/24 1/26 1/	/28 1/30	2/1 2/3	2/5 2/7	2/9 2/11	2/13	
	maximum SC (1.88 mS/cm) on 7/5/2018	is not displayed. Specific Cor	nductivity					
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\$\frac{1.0}{2} 0.5								
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SCOURC in attendar attend	dard: Daily avorago not less than F h	with a low of 4 mg/l	ad Owners			- 4 mg/L (SCDUTC)	ow Standard)	
13	dard: Daily average not less than 5 mg/L v	VILLI A IOW OI 4 MIg/L DISSOIV	ed Oxygen			4 mg/L (SCDHEC L	ow standard)	
√86 7 7 5								
1/10 1/12 1/14	4 1/16 1/18 1/20	1/22 1/24 1/26 1	1/28 1/30	2/1 2/3	2/5 2/7	2/9 2/11	2/13	
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Continuous Water Quality Monitoring Periodic Report

Rocky Branch A (Jan 10, 2019 -- February 13, 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	
	1/10/2019							
(units)	Time	Result	Time	Result	Time	Result	Time	Result
Escherichia coli (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.



Continuous Water Quality Monitoring Periodic Report



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

	CONTINUOUS		SUMMARY STATISTICS					
PARAMETER	DESCRIPTION	WATER QUALITY PARAMETERS:	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							
ADDRESS:	510 Heyward St Columbia, SC 29201	TEMPERATURE (°F):	46	65	53	54	4	
COORDINATES:	33.982578, -81.035036	TURRIDITY (NTU).	4	174	4	0	12	
TMDL/IMPAIRMENT:	Fecal Coliform	TURBIDITY (NTU):	1	174	4	8	12	
NEIGHBORING LANDUSE:	Residential and commercial	pH:	6.5	7.0	7.1	7.1	0.1	
SPATIAL LOCATION:	Most Downstream Site	pn.	0.5	7.3	7.1	7.1	0.1	
TOTAL NO. STORMS OVER 0.1 INCH:	3	SPECIFIC CONDUCTIVITY (mS/cm):	0.025	0.269	0.179	0.177	0.031	
MAX. DAILY RAINFALL:	1.2 inches	DISSOLVED OXYGEN		44.0		40.0		
TOTAL RAINFALL (FOR PERIOD):	0.4 320	(mg/L):	7.9	11.9	10.2	10.2	0.7	
		Stage & Rain	fall					
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åg 4							1.5	
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200 1/10 1/12 1/14 200 1/10 1/12 1/14 8.0 7.5 7.5 7.0 6.5	4 1/16 1/18 1/20	Turbidit	8 1/30 2	Λ.				
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200 1/10 1/12 1/14 200 150 100 50 0 1/10 1/12 1/14 8.0 7.5 6.5 6.0 1/10 1/12 1/14 8.0 1/10 1/12 1/14 8.0 1/10 1/12 1/14 8.0 1/10 1/12 1/14	4 1/16 1/18 1/20 1/16 1/18 1/20 1	Turbidit: 1/22 1/24 1/26 1, pH Specific Con 1/22 1/24 1/26 1,	//28 1/30 2 //28 1/30 ductivity	2/1 2/3	2/5 2/7	2/9 2/11	2/13	
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Sampled Data:

Analyte (units)	Sample 1		Sample 2		Sample 3		Sample 4	
	1/10/2019							
(units)	Time	Result	Time	Result	Time	Result	Time	Result
Escherichia coli (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.