# Rocky Branch Monitoring Sites Monitoring Data Summary for

October 30th, 2020 - December 1st, 2020

#### Data Gaps

- At the ROCA station, a brief period of turbidity and DO data from November 28<sup>th</sup>-30<sup>th</sup> and 28<sup>th</sup>-29<sup>th</sup> respectively were removed from the dataset due to the sensor being buried, causing the turbidity and DO values to be obscured. DO data was also removed from November 12<sup>th</sup>-13<sup>th</sup> because the sensor was buried.
- At the ROCB station, there were no data gaps.

#### SCDHEC Standards

- The ROCA and ROCB stations did not record any pH values outside of the acceptable SCDHEC range of 6 to 8.5
- The ROCA and ROCB stations recorded average DO concentrations of 7.7 mg/L and 8.8 mg/L, respectively, which are well above the SCDHEC daily average minimum standard of 5 mg/L.
- The minimum DO concentration recorded was 5.8 mg/L at ROCA station and 6.4 mg/L at the ROCB station. Both stations were above the SCDHEC discrete minimum standard of 4 mg/L.

#### Storm Events

- The ROCA station recorded 8 storm events during this monitoring period, resulting in 3.9 inches of total precipitation. The ROCB station recorded 7 storm events during this monitoring period, resulting in 3.5 inches of total precipitation.
- Both ROCA and ROCB stations exhibited typical responses to storm events during this monitoring period.

#### Potential Illicit Discharges and Abnormal Events

- At the ROCA station, several increased levels of specific conductivity were observed on October 31<sup>st</sup>, November 9<sup>th</sup>, November 17<sup>th</sup>, and November 29<sup>th</sup>. These elevated levels of specific conductivity were likely a result of the Maxcy Gregg pool discharge.
- At the ROCB station, specific conductivity levels were significantly elevated on November 3<sup>rd</sup>, November 5<sup>th</sup>, November 8<sup>th</sup>-9<sup>th</sup>, November 15<sup>th</sup>, November 19<sup>th</sup>, November 20<sup>th</sup> and November 25<sup>th</sup>-26<sup>th</sup>.

### 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 (October 30, 2020 - December 1, 2020)

			CONTINUOUS		SUMMARY STATISTICS					
PARAMETER	DESCRIPTION		WATER QUALITY PARAMETERS:		MINIMUM OBSERVED	MAXIMUM OBSERVED	MEDIAN OBSERVED	MEAN OBSERVED	STANDARD DEVIATION	
STREAM NAME:	Rocky Branch		STAG	STAGE (FT):		7.9	1.3	1.4	0.3	
LOCATION:	Maxcy Gre	gg Park								
ADDRESS:	1650 Park Circle Columbia, SC 29201		TEMP	TEMPERATURE (°F):		76	64	65	4	
COORDINATES:	33.995864, -8	31.021842	TURBIDITY (NTU):		1	1077	4	11	32	
TMDL/IMPAIRMENT:	Fecal Co	liform	I	DITT (1110).	' 	1077		''	32	
NEIGHBORING LANDUSE:		Residential and commercial		pH:		6.7	6.5	6.5	0.1	
SPATIAL LOCATION:	Most upstre	eam site	0050	IEIO	<u></u>		<u> </u>	<u> </u>		
TOTAL NO. STORMS OVER 0.1 INCH:	8		SPEC COND (mS/c	UCTIVITY	0.013	0.203	0.137	0.131	0.024	
MAX. DAILY RAINFALL:	1.4 inc	hes	DISSO	DLVED						
TOTAL RAINFALL (FOR PERIOD):	3.9 inc	hes		EN (mg/L):	5.8	9.7	7.7	7.7	0.6	
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# Continuous Water Quality Monitoring Periodic Report

Rocky Branch A (October 30, 2020 - December 1, 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:**

	Sample 1		Sample 2		Sample 3		Sample 4	
Analyte (units)	11/9/2020		11/12/2020		11/12/2020		11/12/2020	
	Time	Results	Time	Results	Time	Results	Time	Results
Escherichia coli (MPN/100mL)	10:00	194	11:02	>48,392	12:29	18,280	13:33	28,270
Total Suspended Solids (mg/L)			11:02	193	12:29	17.6	13:33	9.7
Total Phosphorus (mg/L)			11:02	0.32	12:29	0.14	13:33	0.13
Total Nitrogen (mg/L)			11:02	2.48	12:29	1.01	13:33	0.82

Notes: Sample 1 was collected during dry weather conditions. Samples 2-4 were collected during wet weather conditions.



## **Continuous Water Quality Monitoring Periodic Report**



## Rocky Branch B (October 30, 2020 - December 1, 2020)

			CONT	CONTINUOUS		SUMMARY STATISTICS					
PARAMETER	DESCRIPTION			WATER QUALITY PARAMETERS:		MAXIMUM OBSERVED	MEDIAN OBSERVED	MEAN OBSERVED	STANDARD DEVIATION		
STREAM NAME:	Rocky	Branch	STAGE (FT):			9.7	3.8	3.8	0.3		
LOCATION:	Olympia Av	e Crossing							_		
ADDRESS:	510 Hey Columbia,		TEMP	ERATURE (°F):	54	76	63	63	5		
COORDINATES:	33.982578,	-81.035036	TURB	IDITY (NTU):	1	165	2	5	10		
TMDL/IMPAIRMENT:	Fecal C	oliform	TOKE	IDITT (1410).	'	103		,	10		
NEIGHBORING LANDUSE:	Residential an	d commercial	pH:		6.9	7.7	7.2	7.2	0.1		
SPATIAL LOCATION:	Most Down	stream Site									
TOTAL NO. STORMS OVER 0.1 INCH:	7	,	SPEC COND (mS/c	UCTIVITY	0.054	0.261	0.188	0.181	0.029		
MAX. DAILY RAINFALL:	1.1 ir	iches		OLVED OXYGEN							
TOTAL RAINFALL (FOR PERIOD):	3.5 ir	iches	(mg/L)		6.4	10.3	8.8	8.8	0.8		
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SCDHEC in-stream sta	ndard: Daily average	not less than 5 mg/L	with a low of 4	4 mg/L Dissolved	Oxygen			4 mg/L (SCDHEC L	ow Standard)		
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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 (October 30, 2020 - December 1, 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.
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STANDARD DEVIATION	The standard deviation of all the values recorded by the datasonde in 15 minute intervals.

## Sampled Data:

	Sample 1		Sample 2		Sample 3		Sample 4	
Analyte (units)	11/9/2020		11/12/2020		11/12/2020		11/12/2020	
	Time	Results	Time	Results	Time	Results	Time	Results
Escherichia coli (MPN/100mL)	10:10	646	10:45	2,592	12:10	28,270	13:45	22,400
Total Suspended Solids (mg/L)			10:45	35.2	12:10	67.5	13:45	17.4
Total Phosphorus (mg/L)			10:45	0.17	12:10	0.24	13:45	0.15
Total Nitrogen (mg/L)			10:45	1.82	12:10	1.34	13:45	0.87

 $Notes: Sample \ 1 \ was \ collected \ during \ dry \ weather \ conditions. \ Samples \ 2-4 \ were \ collected \ during \ wet \ weather \ conditions.$