Rocky Branch Monitoring Sites

Data Gaps

- The ROCA site experienced turbidity fouling from December 28th through January 3rd. Due to staffing restrictions over the holiday season, this fouling could not be corrected for several days.
- The ROCB station did not experience any sensor fouling or other data gaps during this deployment.

SCDHEC Standards

- The average DO at ROCA and ROCB was above the 5 mg/L limit, with values of 8.3 mg/L and 9.8 mg/L, respectively. These values are the highest deployment average concentrations recorded at these stations to date.
- The instantaneous DO limit was not violated at either Rocky branch station during this deployment period.
- The pH standard was not violated at either of the ROC sites.

Storm Events

- The ROCA station recorded 10 storm events during this deployment while the ROCB station recorded only 9.
- The most significant storm event during this period occurred on December 24th. Both of the Rocky Branch monitoring sites recorded a 3 inch daily total on this date.

Potential Illicit Discharges

- At ROCA, a number of potential illicit discharges were recorded:
    - The most significant of these was recorded on December 9th, when specific conductivity DO, pH, turbidity, and stage all increased and the water temperature decreased. This response is typical of a backwash event at the Maxcy Greg pool; however, given the winter season, this event may have been unrelated to pool maintenance activities.
    - The remaining potential illicit discharges noted during this deployment occurred during small storm events, in a similar pattern as observed at the KINA and KINB stations. The specific conductivity and pH increased slightly during these mild storms on December 6th, 9th, 16th, and 17th.
- At ROCB, a number of sporadic increases in specific conductivity levels were observed on December 6th-7th, 8th, 9th-10th, 12th-13th, 15th-16th, 17th-18th, 19th-20th, 21st, 23rd, and 26th-27th, and January 1st, and 3rd.

City of Columbia, SC Stormwater Management
Partnering for clean waterways

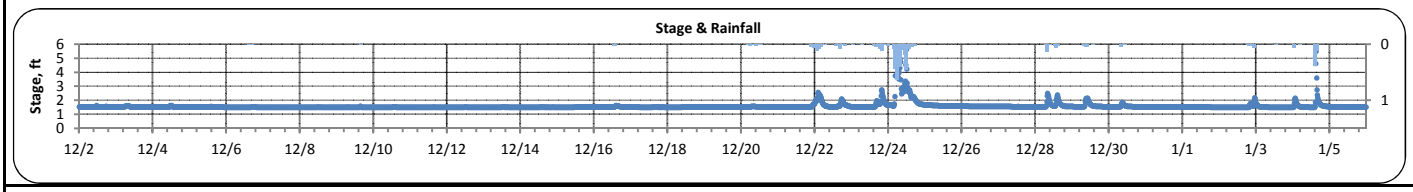
Continuous Water Quality Monitoring Periodic Report

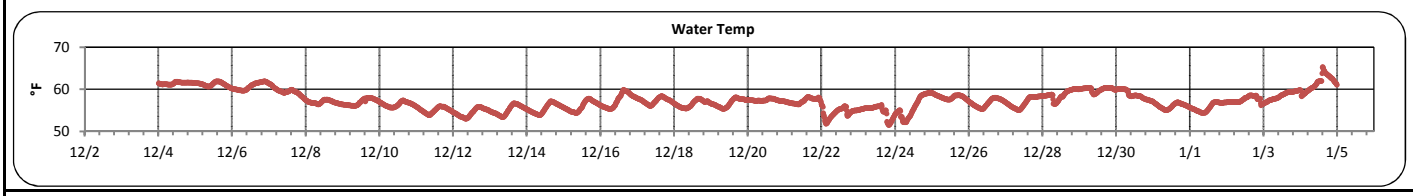
Rocky Branch A (Dec 2, 2014 -- Jan 6, 2015)

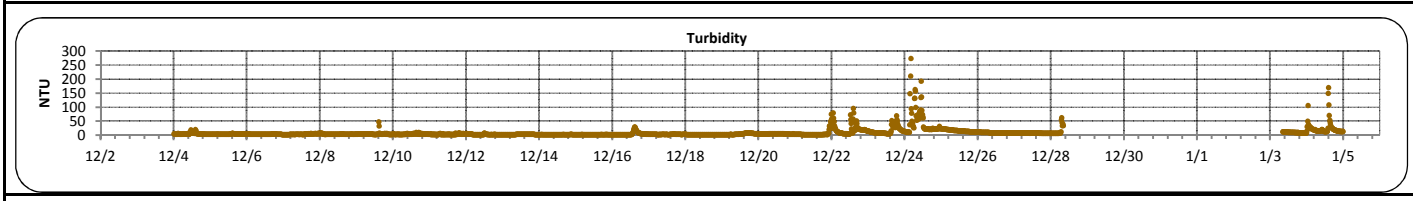
WOOLPERT
DESIGN | GEOSPATIAL | INFRASTRUCTURE

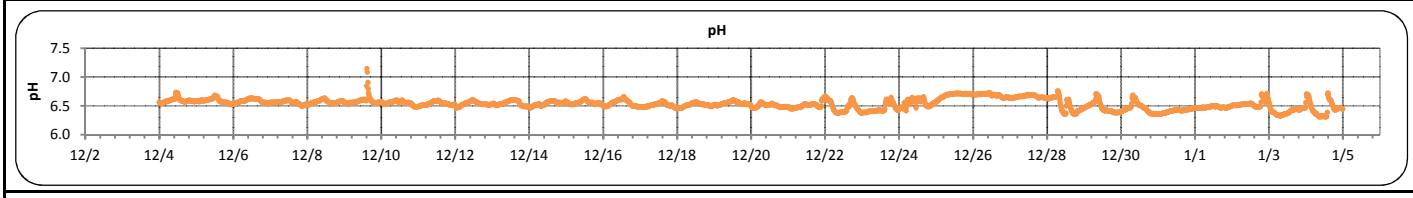
PARAMETER	DESCRIPTION
STREAM NAME:	Rocky Branch
LOCATION:	Maxcy Gregg Park
ADDRESS:	1650 Park Circle Columbia, SC 29201
COORDINATES:	34.995864, -81.021842
TMDL/IMPAIRMENT:	Fecal Coliform
NEIGHBORING LANDUSE:	Residential and commercial
SPATIAL LOCATION:	Most upstream site
TOTAL NO. STORMS OVER 0.1 INCH:	10
MAX. DAILY RAINFALL:	3.0 inches
TOTAL RAINFALL (FOR PERIOD):	5.3 inches

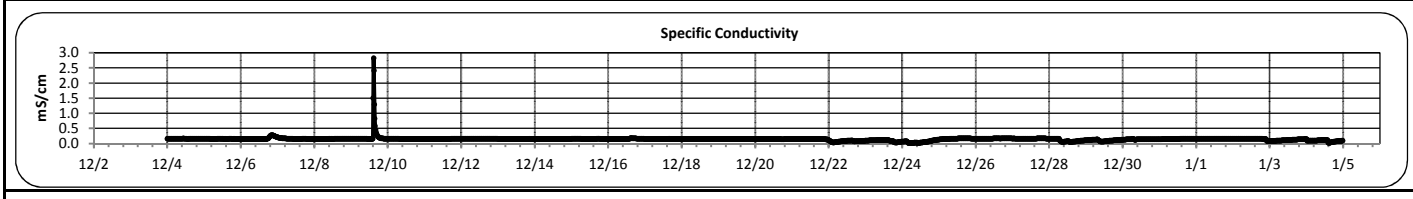
CONTINUOUS WATER QUALITY PARAMETERS:	SUMMARY STATISTICS				
	MINIMUM OBSERVED	MAXIMUM OBSERVED	MEDIAN OBSERVED	MEAN OBSERVED	STANDARD DEVIATION
STAGE (FT):	1.5	6.0	1.5	1.6	0.3
TEMPERATURE (°F):	51	65	57	57	2
TURBIDITY (NTU):	2	274	4	8	16
pH:	6.3	7.2	6.5	6.5	0.1
SPECIFIC CONDUCTIVITY (mS/cm):	0.011	2.823	0.152	0.144	0.080
DISSOLVED OXYGEN (mg/L):	7.1	10.7	8.3	8.3	0.5

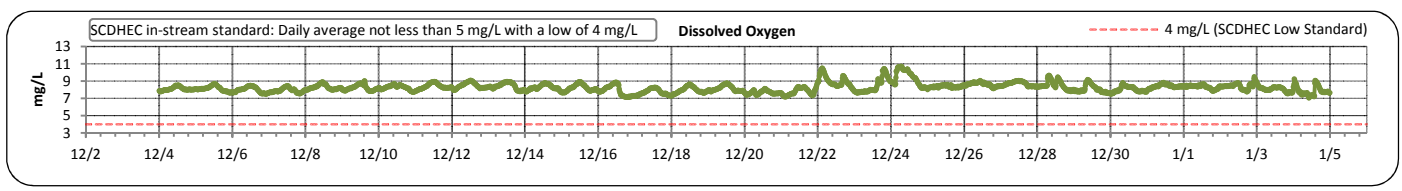












Note: Data gaps appear when the sonde is removed for calibration or when the flow depth is below the sensors

REPORT GENERATED ON 1/16/2015

Continuous Water Quality
Monitoring Periodic Report

Rocky Branch A (Dec 2, 2014 -- Jan 6, 2015)

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	
	12/23/2014							
	Time	Result	Time	Result	Time	Result	Time	Result
Escherichia coli (MPN/100mL)	13:18	743.0						
Total Suspended Solids (mg/L)								
Total Phosphorus (mg/L)								
Total Nitrogen (mg/L)								

Note: This sample was collected as a dry weather sample before a storm event occurred. The storm event ended up occurring later than forecasted and sampling was not continued due to the lab being closed for the holidays.

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City of Columbia, SC Stormwater Management — Partnering for clean waterways

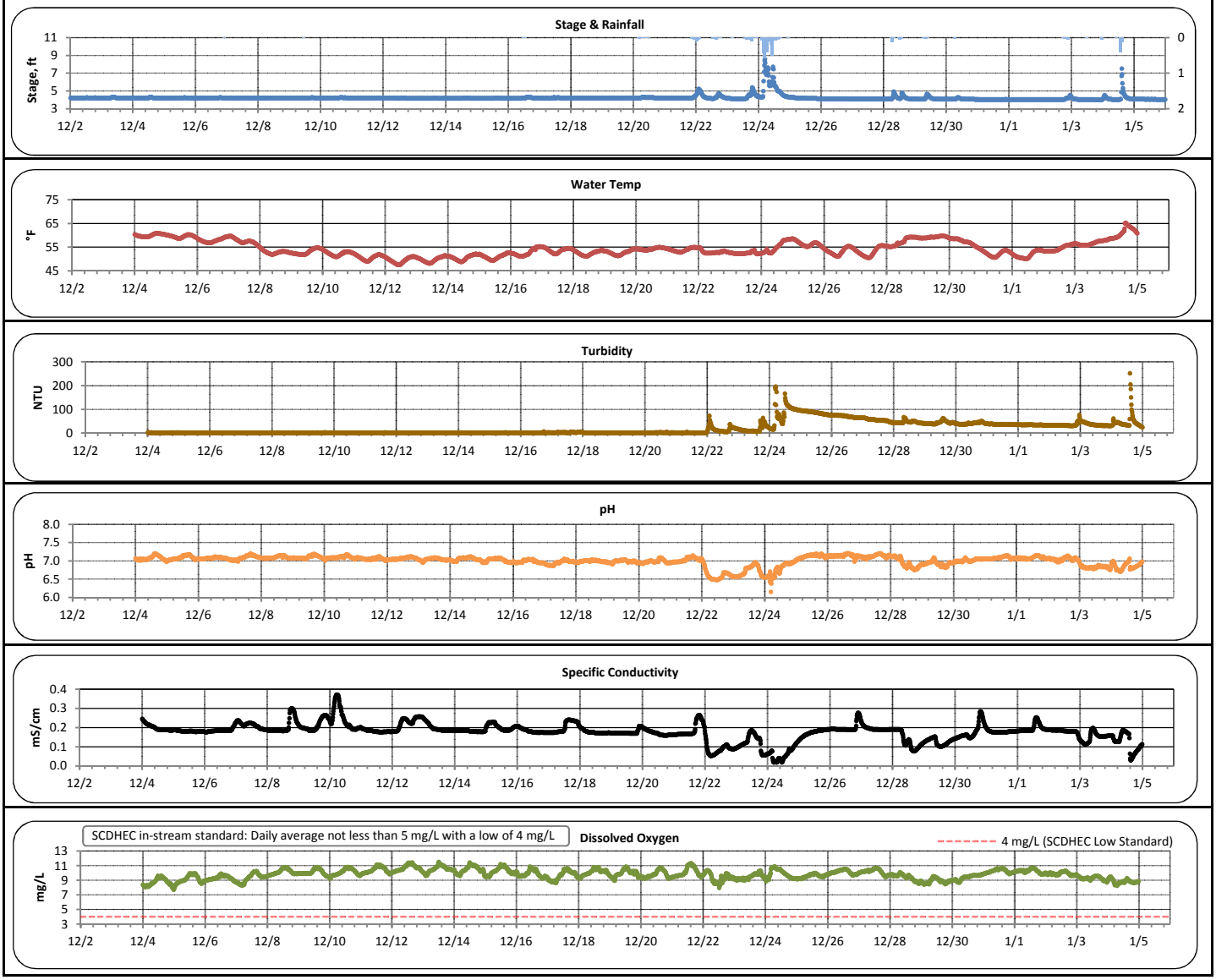
Continuous Water Quality Monitoring Periodic Report

Rocky Branch B (Dec 2, 2014 -- Jan 6, 2015)

WOOLPERT — DESIGN | GEOSPATIAL | INFRASTRUCTURE

PARAMETER	DESCRIPTION
STREAM NAME:	Rocky Branch
LOCATION:	Olympia Ave Crossing
ADDRESS:	510 Heyward St Columbia, SC 29201
COORDINATES:	33.982578, -81.035036
TMDL/IMPAIRMENT:	Fecal Coliform
NEIGHBORING LANDUSE:	Residential and commercial
SPATIAL LOCATION:	Most Downstream Site
TOTAL NO. STORMS OVER 0.1 INCH:	9
MAX. DAILY RAINFALL:	3.0 inches
TOTAL RAINFALL (FOR PERIOD):	5.2 inches

CONTINUOUS WATER QUALITY PARAMETERS:	SUMMARY STATISTICS				
	MINIMUM OBSERVED	MAXIMUM OBSERVED	MEDIAN OBSERVED	MEAN OBSERVED	STANDARD DEVIATION
STAGE (FT):	4.0	8.6	4.2	4.2	0.3
TEMPERATURE (°F):	48	65	54	54	3
TURBIDITY (NTU):	1	251	2	21	28
pH:	6.2	7.2	7.1	7.0	0.1
SPECIFIC CONDUCTIVITY (mS/cm):	0.018	0.371	0.182	0.177	0.047
DISSOLVED OXYGEN (mg/L):	7.7	11.5	9.8	9.8	0.7



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

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Continuous Water Quality
Monitoring Periodic Report

Rocky Branch B (Dec 2, 2014 -- Jan 6, 2015)

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	
	12/23/2014							
	Time	Result	Time	Result	Time	Result	Time	Result
Escherichia coli (MPN/100mL)	13:33	368						
Total Suspended Solids (mg/L)								
Total Phosphorus (mg/L)								
Total Nitrogen (mg/L)								

Note: This sample was collected as a dry weather sample before a storm event occurred. The storm event ended up occurring later than forecasted and sampling was not continued due to the lab being closed for the holidays.

REPORT GENERATED ON 1/16/2015