Kinley Creek Monitoring Sites
Monitoring Data Summary for
July 14th, 2017 – August 15th, 2017

Data Gaps

- The KINA station experienced submergence issues that affected specific conductivity from the date of sonde deployment until July 15th and from July 30th until the August 7th storm event. These periods were deleted from the dataset.
- The KINB sonde experienced short periods of turbidity fouling from July 19th-20th, 22nd-24th, and 25th-27th, so this data was removed from the dataset.

SCDHEC Standards

- None of the Kinley Creek monitoring stations recorded any pH readings outside of the acceptable SCDHEC range of 6 to 8.5.
- The KINA and KINB stations recorded average DO concentrations of 5.5 mg/L and 5.0 mg/L, respectively. These averages were above the SCDHEC daily average standard minimum of 5 mg/L.
- The instantaneous minimum DO values recorded at the KINA and KINB stations were 2.4 mg/L and 3.1 mg/L, respectively. Most of the low DO minimums at both Kinley Creek sites occurred during rain events. Some of the low DO minimums at KINA occurred on July 16th just before the storm event on July 17th.

Storm Events

- The Kinley rain gauge recorded six storm events over this deployment period, resulting in 2.1 inches of precipitation.
- Both stations recorded typical storm event responses during this monitoring period.
- The maximum antecedent dry time since the last significant precipitation event (at least 0.1 inches) was approximately 22.7 days in the Kinley Creek watershed, and occurred prior to the August 7th storm event.

Potential Illicit Discharges and Abnormal Events

- The KINA station experienced a strange pattern on July 16th before the storm event on July 17th amongst all water quality parameters: stage, specific conductivity, and turbidity increased while DO and pH decreased. Possible reason for this occurrence may have been from activity at an upstream control structure.

Flow Measurements

- There were not any flow measurements taken at the Kinley Creek stations during this deployment period.

City of Columbia, SC Stormwater Management
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Continuous Water Quality Monitoring Periodic Report

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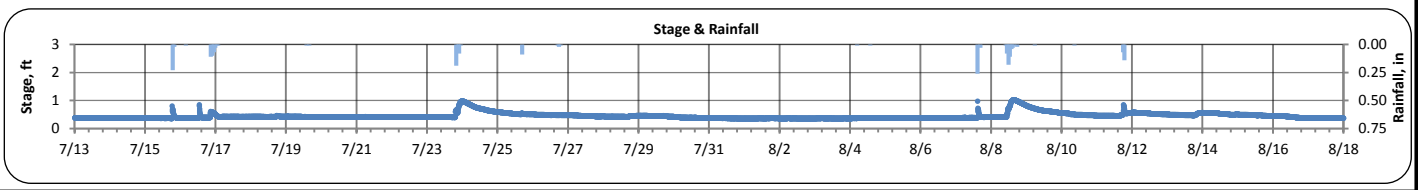
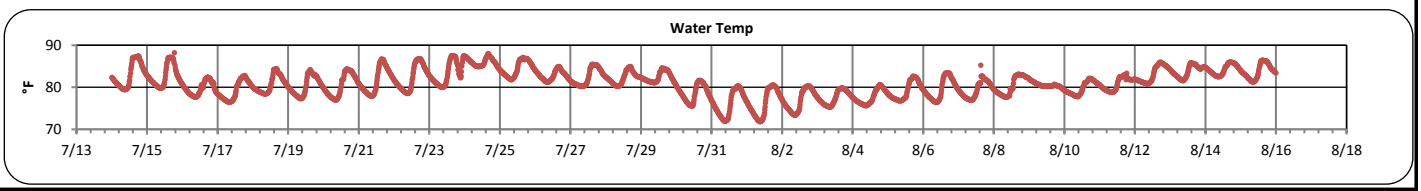
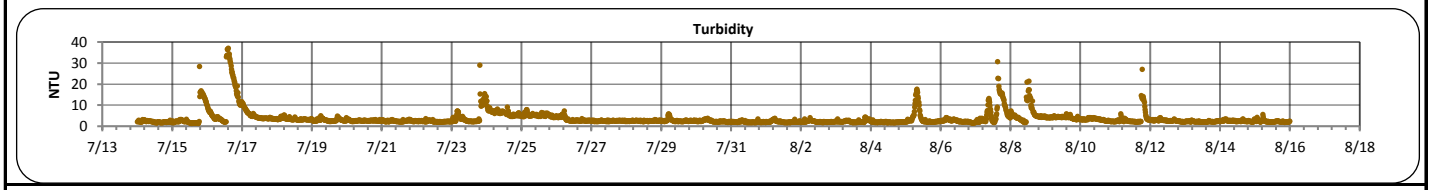
Kinley Creek A (July 13, 2017 -- August 17, 2017)

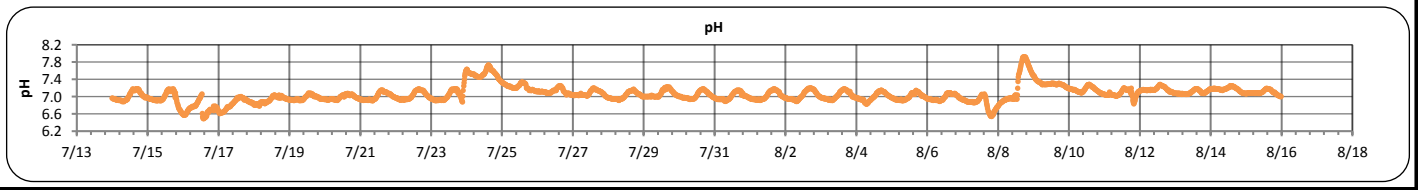
PARAMETER	DESCRIPTION
STREAM NAME:	Kinley Creek
LOCATION:	Longhorn Steakhouse
ADDRESS:	171 Harbison Blvd Columbia, SC 29212
COORDINATES:	34.069897, -81.164592
TMDL/IMPAIRMENT:	Fecal Coliform
NEIGHBORING LANDUSE:	Residential and commercial
SPATIAL LOCATION:	Most upstream site
TOTAL NO. STORMS OVER 0.1 INCH:	6
MAX. DAILY RAINFALL:	0.5 inches
TOTAL RAINFALL (FOR PERIOD):	2.1 inches

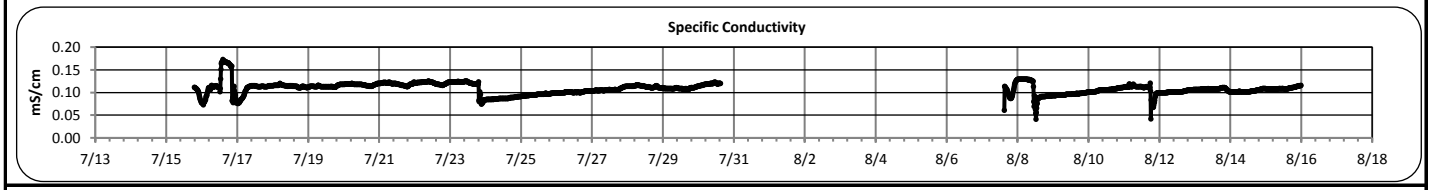
CONTINUOUS WATER QUALITY PARAMETERS:	SUMMARY STATISTICS				
	MINIMUM OBSERVED	MAXIMUM OBSERVED	MEDIAN OBSERVED	MEAN OBSERVED	STANDARD DEVIATION
STAGE (FT):	0.4	1.0	0.4	0.5	0.1
TEMPERATURE (°F):	72	88	81	81	3
TURBIDITY (NTU):	1	37	3	4	4
pH:	6.5	7.9	7.1	7.1	0.2
SPECIFIC CONDUCTIVITY (mS/cm):	0.041	0.173	0.109	0.108	0.013
DISSOLVED OXYGEN (mg/L):	2.4	7.8	5.3	5.5	1.0

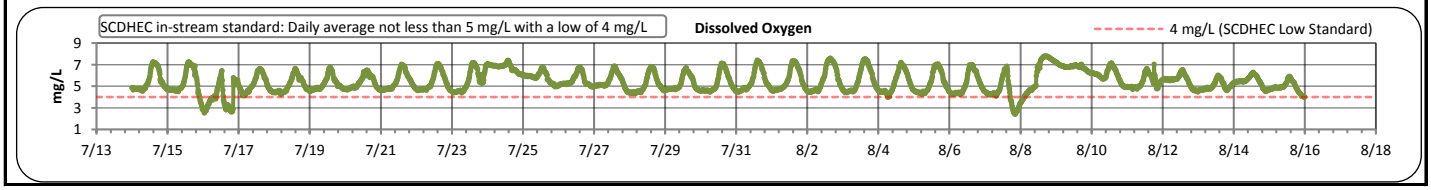












Note: Data gaps appear when the sonde is removed for calibration or when the flow depth is below the sensors

REPORT GENERATED ON 8/30/2017

Continuous Water Quality
Monitoring Periodic Report

Kinley Creek A (July 13, 2017 -- August 17, 2017)

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	
	8/8/2017							
	Time	Result	Time	Result	Time	Result	Time	Result
Escherichia coli (MPN/100mL)	12:16	12,260						
Total Suspended Solids (mg/L)	12:16	13.6						
Total Phosphorus (mg/L)	12:16	0.12						
Total Nitrogen (mg/L)	12:16	0.64						

Note:

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Continuous Water Quality Monitoring Periodic Report

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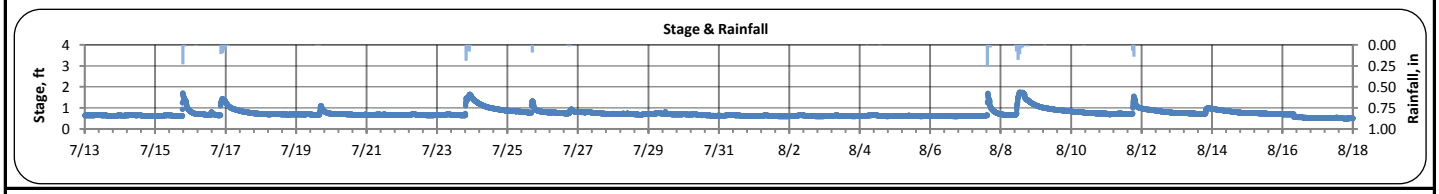
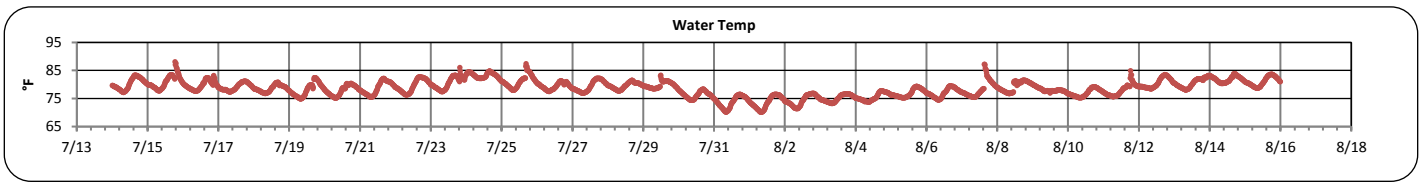
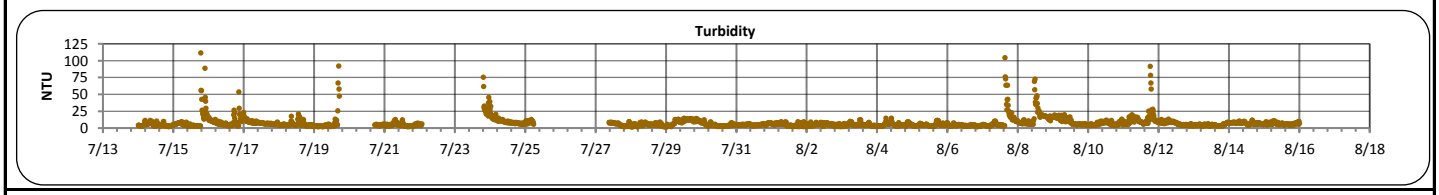
Kinley Creek B (July 13, 2017 -- August 17, 2017)

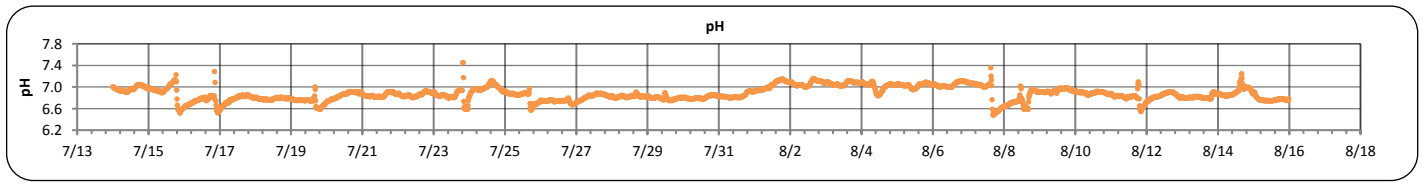
PARAMETER	DESCRIPTION
STREAM NAME:	Kinley Creek
LOCATION:	Broken Hill Rd
ADDRESS:	609 Broken Hill Rd Columbia, SC 29212
COORDINATES:	34.06635, -81.159986
TMDL/IMPAIRMENT:	Fecal Coliform
NEIGHBORING LANDUSE:	Residential and commercial
SPATIAL LOCATION:	Most downstream site
TOTAL NO. STORMS OVER 0.1 INCH:	6
MAX. DAILY RAINFALL:	0.5 inches
TOTAL RAINFALL (FOR PERIOD):	2.1 inches

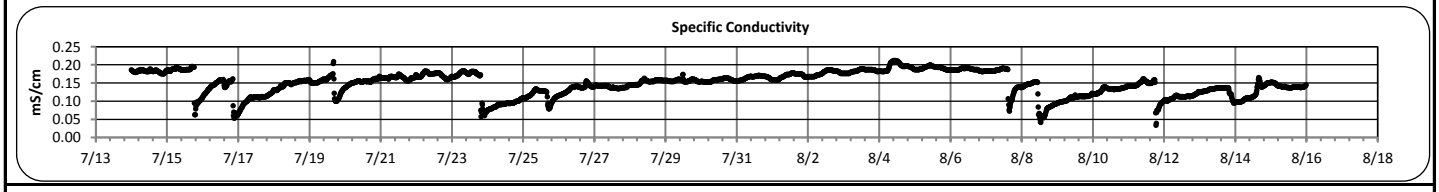
CONTINUOUS WATER QUALITY PARAMETERS:	SUMMARY STATISTICS				
	MINIMUM OBSERVED	MAXIMUM OBSERVED	MEDIAN OBSERVED	MEAN OBSERVED	STANDARD DEVIATION
STAGE (FT):	0.5	1.7	0.7	0.7	0.2
TEMPERATURE (°F):	70	88	79	79	3
TURBIDITY (NTU):	2	112	6	8	8
pH:	6.5	7.5	6.9	6.9	0.1
SPECIFIC CONDUCTIVITY (mS/cm):	0.034	0.212	0.154	0.149	0.032
DISSOLVED OXYGEN (mg/L):	3.1	7.4	5.0	5.0	0.8

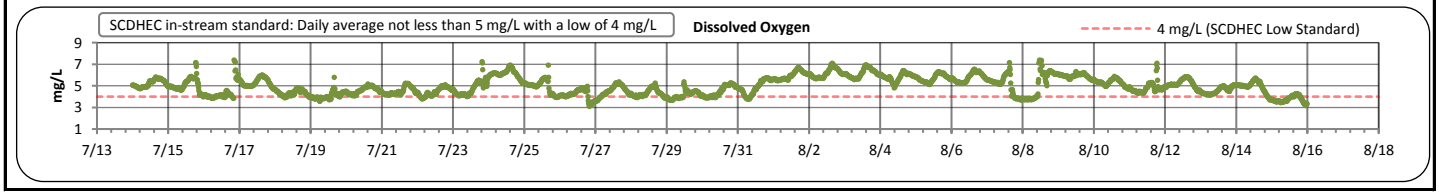












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Continuous Water Quality
Monitoring Periodic Report

Kinley Creek B (July 13, 2017 -- August 17, 2017)

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Sampled Data:

Analyte (units)	Sample 1		Sample 2		Sample 3		Sample 4	
	8/8/2017							
	Time	Result	Time	Result	Time	Result	Time	Result
Escherichia coli (MPN/100mL)	12:36	11,590						
Total Suspended Solids (mg/L)	12:36	66						
Total Phosphorus (mg/L)	12:36	0.11						
Total Nitrogen (mg/L)	12:36	1.33						

Note: