Kinley Creek Monitoring Sites
Monitoring Data Summary for
September 27th, 2018 – October 31st, 2018

Data Gaps

- At KINA, data for was removed from October 11th to the day the sonde was removed for calibrations because the sensors were not submerged. This station was heavily impacted by the large rain event, related to Hurricane Florence, that took place on October 10th and 11th.
- At KINB, a period of inaccurate turbidity readings were removed from the dataset due to influence from wildlife. A site visit on October 19th revealed a snake inside of the sonde guard, which was then removed. The snake was most likely covering the turbidity sensor which resulted in elevated and noisy turbidity readings. After the snake was removed from the sonde guard, the turbidity data returned to normal.

SCDHEC Standards

- Neither of the Kinley Creek monitoring stations recorded pH readings outside of the SCDHEC acceptable range of 6 to 8.5.
- The KINA station recorded an average DO concentration of 4.8 mg/L and the KINB station recorded an average DO concentration of 6.8 mg/L which are both well above the SCDHEC daily average standard of 5 mg/L.
- The instantaneous minimum DO values recorded at the KINA and KINB stations were 2.5 mg/L and 3.7 mg/L, respectively, which are both below the SCDHEC instantaneous minimum standard of 4.0 mg/L. The low DO values at the KINA station occurred during a dry period when flow in the watershed was relatively slow. The low DO value at the KINB station was recorded during the rain event, related to Hurricane Florence, on October 10th which caused particularly unusual first flush readings at this station.

Storm Events

- The rain gauge along Kinley Creek recorded 5 storm events during this deployment period that resulted in 7.9 inches of precipitation.
- The Kinley Creek monitoring stations experienced a large rain event, related to Hurricane Florence, that resulted in continuous precipitation from October 10th-11th.
- Both KINA and KINB stations recorded typical response patterns to the recorded storm events during this monitoring period.
- The maximum antecedent dry time since the last significant precipitation event (at least 0.1 inches) was approximately 14.5 days in the Kinley Creek watershed which occurred prior to the October 26th storm event.

Potential Illicit Discharges and Abnormal Events

- The rain associated with Hurricane Florence damaged the surrounding area of KINA and a heavy amount of debris was wrapped around the sonde well. The sonde became unsubmerged after this storm event, causing all of the sensors to be unsubmerged, so all of the water quality data was removed. On October 29th, the KINA station was visited to remove debris and adjust the pressure transducer to its proper location after it's displacement during the large storm event. A sudden increase in the pressure transducer depth is evident after this adjustment.

Flow Measurements

- No flow measurements were taken in the Kinley Creek watershed during this deployment period.

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

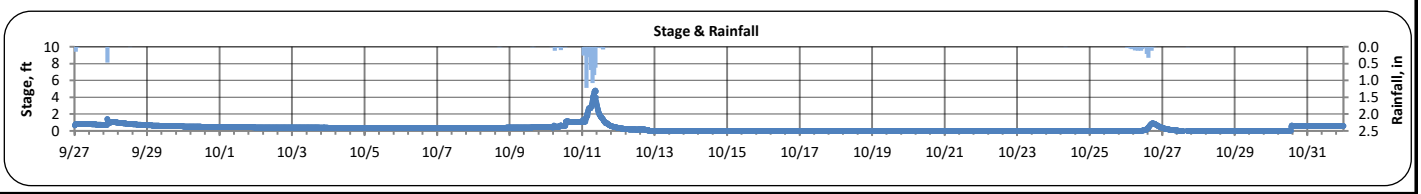
Continuous Water Quality Monitoring Periodic Report

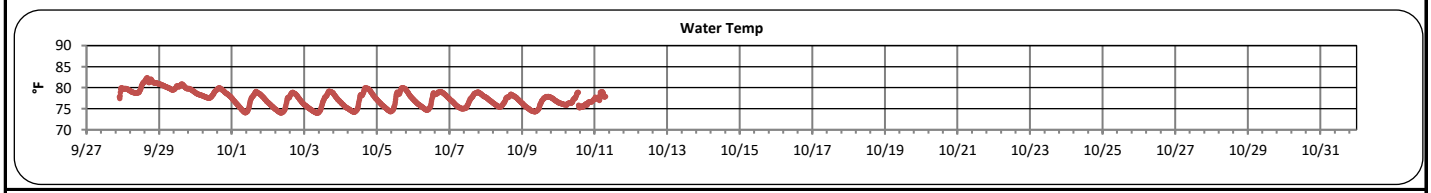
WOOLPERT

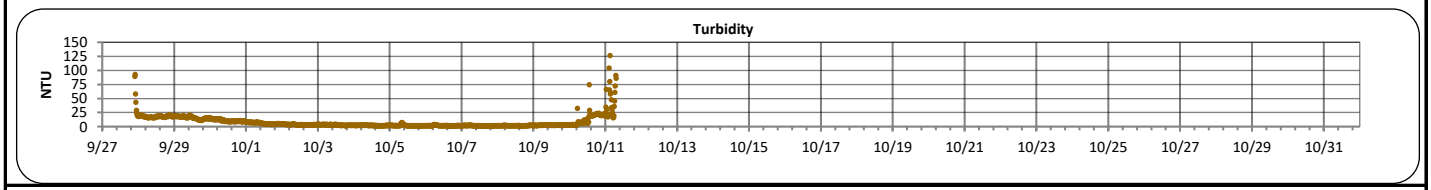
Kinley Creek A (September 27, 2018 -- October 31, 2018)

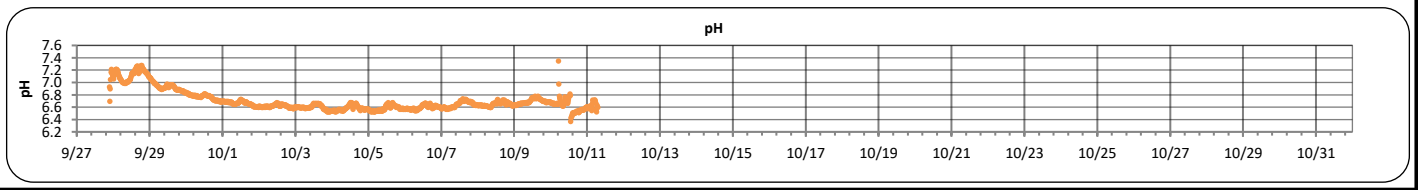
PARAMETER	DESCRIPTION
STREAM NAME:	Kinley Creek
LOCATION:	Longhorn Steakhouse
ADDRESS:	171 Harbison Blvd Columbia, SC 29212
COORDINATES:	34.069897, -81.164592
TMDL/IMPAIRMENT:	Fecal Coliform
NEIGHBORING LANDUSE:	Residential and commercial
SPATIAL LOCATION:	Most upstream site
TOTAL NO. STORMS OVER 0.1 INCH:	5
MAX. DAILY RAINFALL:	5.3 inches
TOTAL RAINFALL (FOR PERIOD):	7.9 inches

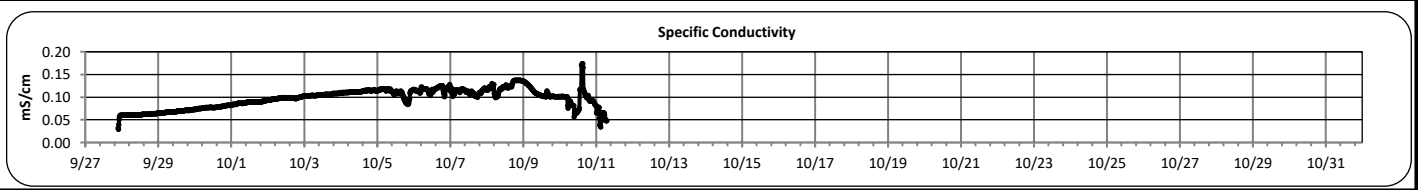
CONTINUOUS WATER QUALITY PARAMETERS:	SUMMARY STATISTICS				
	MINIMUM OBSERVED	MAXIMUM OBSERVED	MEDIAN OBSERVED	MEAN OBSERVED	STANDARD DEVIATION
STAGE (FT):	0.0	4.8	0.2	0.3	0.4
TEMPERATURE (°F):	74	82	77	77	2
TURBIDITY (NTU):	1	127	3	8	11
pH:	6.4	7.4	6.7	6.7	0.2
SPECIFIC CONDUCTIVITY (mS/cm):	0.029	0.174	0.102	0.097	0.021
DISSOLVED OXYGEN (mg/L):	2.5	8.1	4.7	4.8	1.2

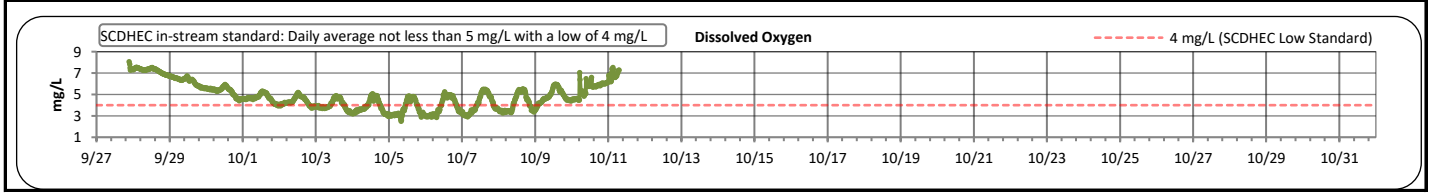












Note: Data gaps appear when the sonde is removed for calibration or when the flow depth is below the sensors

REPORT GENERATED ON 11/27/2018

Continuous Water Quality
Monitoring Periodic Report

Kinley Creek A (September 27, 2018 -- October 31, 2018)

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	
	10/3/2018		10/11/2018					
	Time	Result	Time	Result	Time	Result	Time	Result
Escherichia coli (MPN/100mL)	8:43	1,378	8:50	20,920				
Total Suspended Solids (mg/L)			8:50	115				
Total Phosphorus (mg/L)			8:50	0.11				
Total Nitrogen (mg/L)			8:50	1.04				

Note: The sample collected on 10/3/2018 was collected during dry weather conditions. The sample collected on 10/11/2018 was collected during wet weather conditions.

City of Columbia, SC Stormwater Management
Partnering for clean waterways

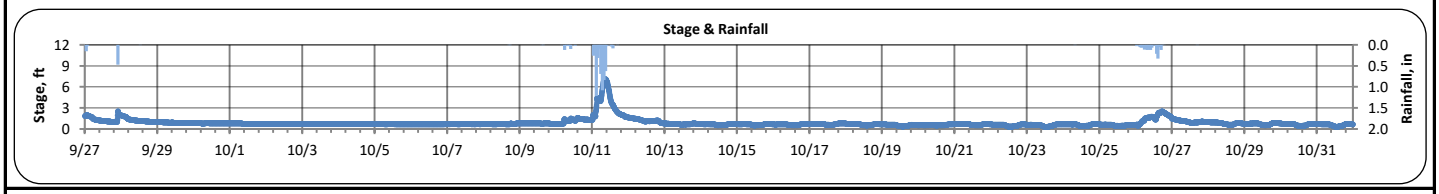
Continuous Water Quality Monitoring Periodic Report

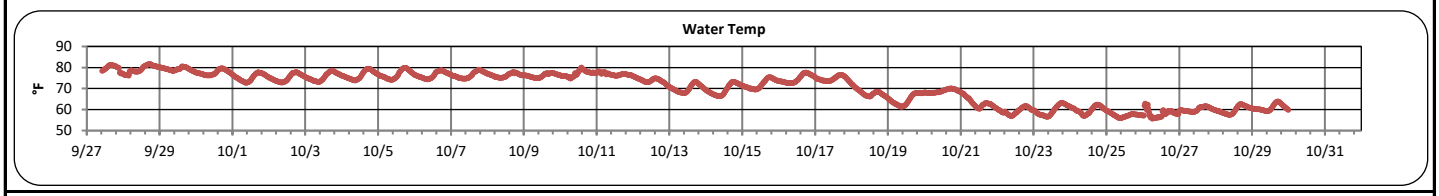
WOOLPERT

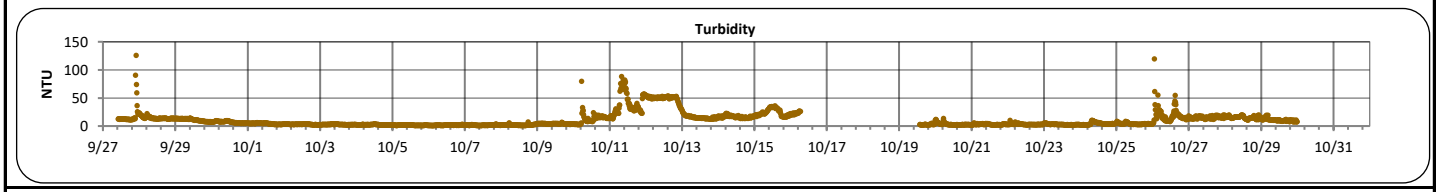
Kinley Creek B (September 27, 2018 -- October 31, 2018)

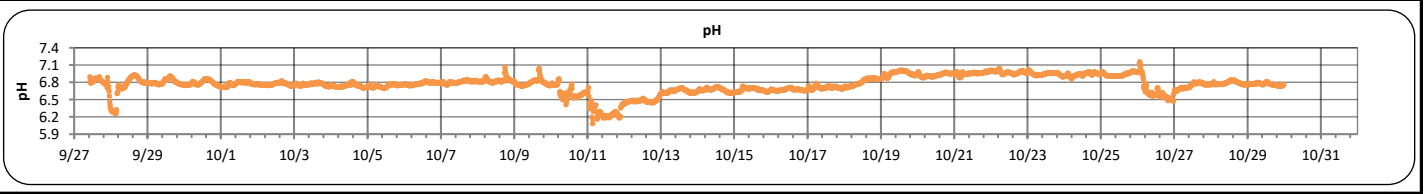
PARAMETER	DESCRIPTION
STREAM NAME:	Kinley Creek
LOCATION:	Broken Hill Rd
ADDRESS:	609 Broken Hill Rd Columbia, SC 29212
COORDINATES:	34.06635, -81.159986
TMDL/IMPAIRMENT:	Fecal Coliform
NEIGHBORING LANDUSE:	Residential and commercial
SPATIAL LOCATION:	Most downstream site
TOTAL NO. STORMS OVER 0.1 INCH:	5
MAX. DAILY RAINFALL:	5.3 inches
TOTAL RAINFALL (FOR PERIOD):	7.9 inches

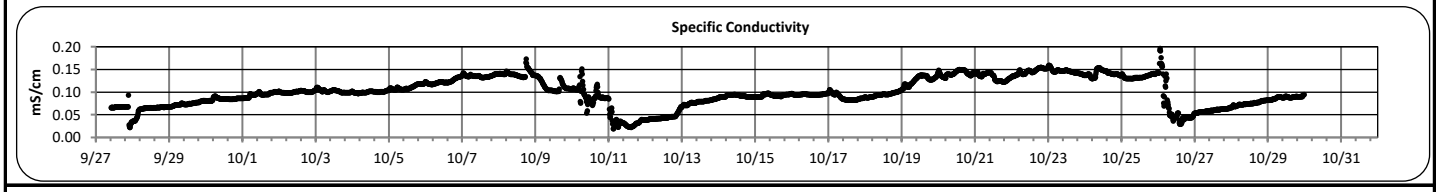
CONTINUOUS WATER QUALITY PARAMETERS:	SUMMARY STATISTICS				
	MINIMUM OBSERVED	MAXIMUM OBSERVED	MEDIAN OBSERVED	MEAN OBSERVED	STANDARD DEVIATION
STAGE (FT):	0.3	7.1	0.7	0.9	0.6
TEMPERATURE (°F):	56	82	74	70	8
TURBIDITY (NTU):	1	126	5	11	13
pH:	6.1	7.2	6.8	6.8	0.2
SPECIFIC CONDUCTIVITY (mS/cm):	0.019	0.196	0.097	0.100	0.032
DISSOLVED OXYGEN (mg/L):	3.7	10.0	6.8	6.8	1.3

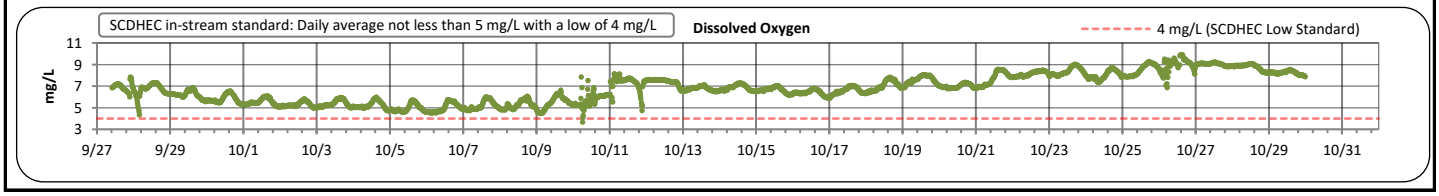












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Kinley Creek B (September 27, 2018 -- October 31, 2018)

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Sampled Data:

Analyte (units)	Sample 1		Sample 2		Sample 3		Sample 4	
	10/3/2018							
	Time	Result	Time	Result	Time	Result	Time	Result
Escherichia coli (MPN/100mL)	8:56	196						
Total Suspended Solids (mg/L)								
Total Phosphorus (mg/L)								
Total Nitrogen (mg/L)								

Note: The sample collected on 10/3/2018 was collected during dry weather conditions.

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