# Kinley Creek Monitoring Sites Monitoring Data Summary for November 7th, 2019 – December 11th, 2019

#### Data Gaps

- The KINA monitoring station did not experience any interruptions in the data during this monitoring period.
- The KINB monitoring station experienced a brief period of fouled turbidity data from November 28<sup>th</sup>-30<sup>th</sup> that was removed from the dataset.

#### SCDHEC Standards

- Both Kinley Creek monitoring stations recorded pH readings that were within the SCDHEC acceptable range of 6 to 8.5.
- The KINA and KINB station recorded average DO concentrations of 7.7 mg/L and 8.7 mg/L respectively, which are both well above the SCDHEC daily average standard of 5 mg/L.
- The instantaneous minimum DO value recorded at the KINA station was 3.9 mg/L, which is below the SCDHEC instantaneous minimum standard of 4 mg/L. These low DO values were recorded during a storm event on November 7<sup>th</sup>.
- The instantaneous minimum DO value recorded at the KINB station was 6.1 mg/L, which is above the SCDHEC instantaneous minimum standard of 4 mg/L.

#### Storm Events

- The rain gauge along Kinley Creek recorded 9 storm events during this deployment period that resulted in a total of 3.1 inches of precipitation.
- Both Kinley Creek monitoring stations recorded typical storm response patterns during this monitoring period.
- The maximum antecedent dry time since the last significant precipitation event (at least 0.1 inches) was approximately 9.4 days in the Kinley Creek watershed, occurring prior to the storm event on December 10<sup>th</sup>.

#### Potential Illicit Discharges and Abnormal Events

- At the KINA station, there were several observations of increased turbidity levels that occurred when there were no storm events. These instances occurred on the following dates: November 10<sup>th</sup>, 11<sup>th</sup>, 19<sup>th</sup>, 21<sup>st</sup>, December 8<sup>th</sup>, and 9<sup>th</sup>.
- A potential illicit discharge activity was observed at both Kinley Creek stations on December 6<sup>th</sup> at the KINA station and on December 6<sup>th</sup>-7<sup>th</sup> at the KINB station, causing specific conductivity to increase.

#### Flow Measurements

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



# **Continuous Water Quality Monitoring Periodic Report**



#### Kinley Creek A (November 7, 2019 - December 11, 2019)

		CONTINUOUS	SUMMARY STATISTICS					
PARAMETER	DESCRIPTION	WATER QUALITY PARAMETERS:	MINIMUM OBSERVED	MAXIMUM OBSERVED	MEDIAN OBSERVED	MEAN OBSERVED	STANDARD DEVIATION	
STREAM NAME:	Kinley Creek	STAGE (FT):	0.6	1.1	0.7	0.7	0.1	
LOCATION:	Longhorn Steakhouse	TEMPERATURE						
ADDRESS:	171 Harbison Blvd Columbia, SC 29212	(°F):	50	66	54	55	3	
COORDINATES:	34.069897, -81.164592	TURBIDITY (NTU):	2	27	5	6	3	
TMDL/IMPAIRMENT:	Fecal Coliform	TORBIDITY (IVIO).	2	21	J	Ü	3	
NEIGHBORING LANDUSE:	Residential and commercial	pH:	6.4	7.0	6.7	6.7	0.1	
SPATIAL LOCATION:	Most upstream site	·						
TOTAL NO. STORMS OVER 0.1 INCH:	9	SPECIFIC CONDUCTIVITY (mS/cm):	0.05	0.158	0.092	0.091	0.011	
MAX. DAILY RAINFALL:	0.7 inches	DISSOLVED						
TOTAL RAINFALL (FOR PERIOD):	3.1 inches	OXYGEN (mg/L):	3.9	10.3	7.6	7.7	1.2	
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# Continuous Water Quality Monitoring Periodic Report

Kinley Creek A (November 7, 2019 - December 11, 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:**

Analyto	Sample 1		Sample 2		Sample 3		Sample 4	
Analyte (units)	11/21/2019		12/5/2019					
	Time	Result	Time	Result	Time	Result	Time	Result
Escherichia coli (MPN/100mL)	9:27	104	8:45	1,170				
Total Suspended Solids (mg/L)								
Total Phosphorus (mg/L)								
Total Nitrogen (mg/L)								

Note: Both samples were taken during dry weather conditions.



# **Continuous Water Quality Monitoring Periodic Report**



### Kinley Creek B (November 7, 2019 - December 11, 2019)

		CONTINUOUS	SUMMARY STATISTICS					
PARAMETER	DESCRIPTION	WATER QUALITY PARAMETERS:	MINIMUM OBSERVED	MAXIMUM OBSERVED	MEDIAN OBSERVED	MEAN OBSERVED	STANDARD DEVIATION	
STREAM NAME:	Kinley Creek	STAGE (FT):	0.6	1.9	0.7	0.8	0.2	
LOCATION:	Broken Hill Rd							
ADDRESS:	609 Broken Hill Rd Columbia, SC 29212	TEMPERATURE (°F):	47	68	53	53	3	
COORDINATES:	34.06635, -81.159986	TURBIDITY (NTU):	2	172	7	9	8	
TMDL/IMPAIRMENT:	Fecal Coliform	1011212111 (1110).	-	172	,	Ü		
NEIGHBORING LANDUSE:	Residential and commercial	pH:	6.2	7.3	6.8	6.8	0.1	
SPATIAL LOCATION:	Most downstream site							
TOTAL NO. STORMS OVER 0.1 INCH:	9	SPECIFIC CONDUCTIVITY (mS/cm):	0.021	0.187	0.093	0.092	0.019	
MAX. DAILY RAINFALL:	0.7 inches	DISSOLVED OXYGEN	6.1	11.4	8.7	8.7	0.9	
TOTAL RAINFALL (FOR PERIOD):	3.1 inches	(mg/L):	0.1	11.4	0.7	0.7	0.9	
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# Continuous Water Quality Monitoring Periodic Report

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STANDARD DEVIATION	The standard deviation of all the values recorded by the datasonde in 15 minute intervals.

### **Sampled Data:**

Analyta	Sample 1		Sample 2		Sample 3		Sample 4	
Analyte (units)	11/21/2019		12/5/2019					
	Time	Result	Time	Result	Time	Result	Time	Result
Escherichia coli (MPN/100mL)	9:10	236	9:02	350				
Total Suspended Solids (mg/L)								
Total Phosphorus (mg/L)								
Total Nitrogen (mg/L)								

Note: Both samples were taken during dry weather conditions.