

# Kinley Creek Monitoring Sites

## Monitoring Data Summary for August 22<sup>nd</sup>, 2018 – September 26<sup>th</sup>, 2018

### *Data Gaps*

- Specific conductivity at the KINA station experienced abnormal readings from August 24<sup>th</sup>-August 31<sup>st</sup>, most likely caused by an air bubble or critter in the specific conductivity port. This period of data is not accurate and was removed from the dataset.

### *SCDHEC Standards*

- The Kinley Creek monitoring stations did not record any pH readings outside of the SCDHEC acceptable range of 6 to 8.5.
- The KINA station recorded an average DO concentration of 4 mg/L which is below the SCDHEC daily average standard of 5 mg/L. The KINB station recorded an average DO concentration of 5 mg/L.
- The instantaneous minimum DO values recorded at the KINA and KINB stations were 1.4 mg/L and 2.9 mg/L, respectively, which are well below the SCDHEC instantaneous minimum standard of 4.0 mg/L. These low DO values are further discussed in the *Potential Illicit Discharges and Abnormal Events* section below.

### *Storm Events*

- The rain gauge along Kinley Creek recorded 4 storm events over this deployment period that resulted in 4.6 inches of precipitation.
- Both KINA and KINB stations recorded typical responses to storm events during this monitoring period.
- The maximum antecedent dry time since the last significant precipitation event (at least 0.1 inches) was approximately 22.3 days in the Kinley Creek watershed occurring prior to the September 10<sup>th</sup> storm event.

### *Potential Illicit Discharges and Abnormal Events*

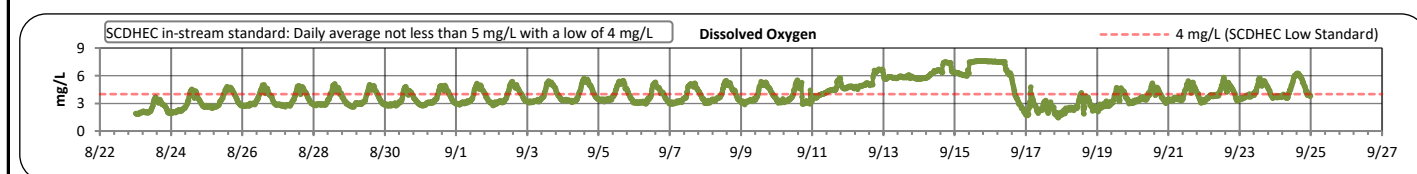
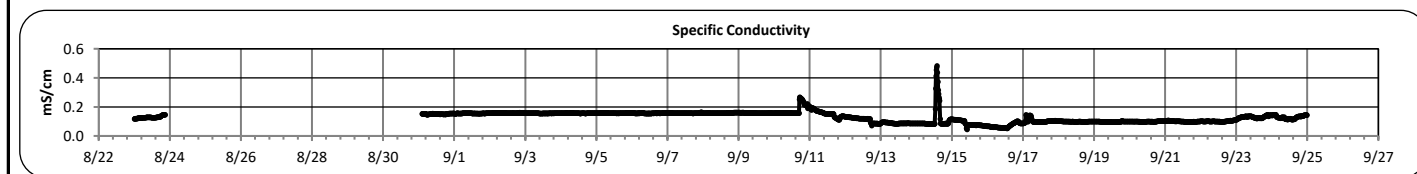
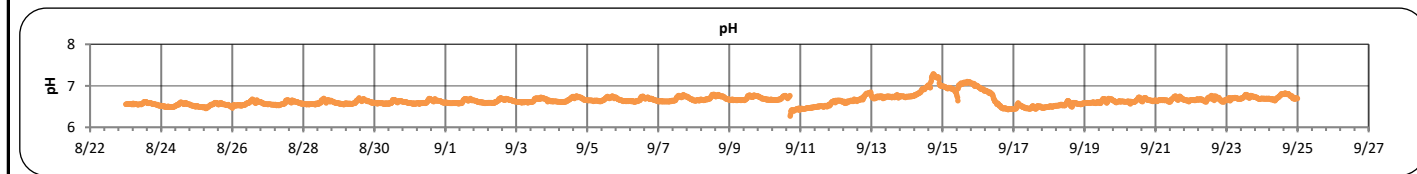
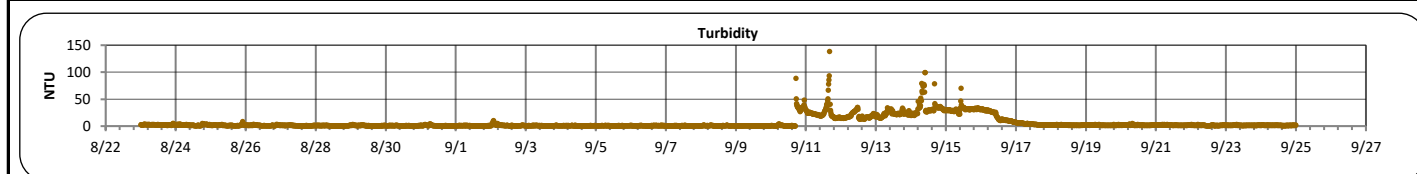
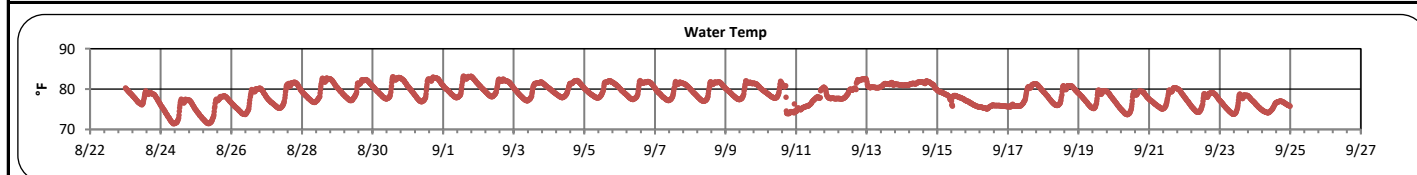
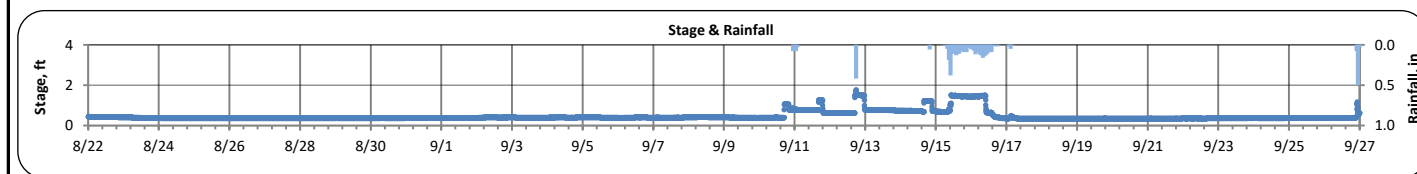
- The low DO values observed at both KINA and KINB may have been the result of a combination of relatively dry conditions in the watershed and the high algal growth observed upstream, in Lake Quail Valley, this summer. The excessive algal production may have resulted in a large amount of decaying biomass in the lake and downstream in Kinley Creek, which may have consumed much of the oxygen in the stream system. The instantaneous minimum DO values recorded during this monitoring period are higher than those observed in the previous monitoring period (July 19<sup>th</sup> – August 21<sup>st</sup>).

### *Flow Measurements*

- No flow measurements were taken at the Kinley Creek stations during this monitoring period.

**Kinley Creek A (August 22, 2018 -- September 26, 2018)**

PARAMETER	DESCRIPTION	CONTINUOUS WATER QUALITY PARAMETERS:	SUMMARY STATISTICS				
			MINIMUM OBSERVED	MAXIMUM OBSERVED	MEDIAN OBSERVED	MEAN OBSERVED	STANDARD DEVIATION
STREAM NAME:	Kinley Creek	STAGE (FT):	0.3	1.8	0.4	0.5	0.2
LOCATION:	Longhorn Steakhouse	TEMPERATURE (°F):	71	83	79	79	2
ADDRESS:	171 Harbison Blvd Columbia, SC 29212	TURBIDITY (NTU):	1	138	2	6	11
COORDINATES:	34.069897, -81.164592	pH:	6.3	7.3	6.6	6.7	0.1
TMDL/IMPAIRMENT:	Fecal Coliform	SPECIFIC CONDUCTIVITY (mS/cm):	0.045	0.483	0.134	0.130	0.037
NEIGHBORING LANDUSE:	Residential and commercial	DISSOLVED OXYGEN (mg/L):	1.4	7.7	3.7	4.0	1.3
SPATIAL LOCATION:	Most upstream site						
TOTAL NO. STORMS OVER 0.1 INCH:	4						
MAX. DAILY RAINFALL:	1.7 inches						
TOTAL RAINFALL (FOR PERIOD):	4.6 inches						



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**

**Kinley Creek A (August 22, 2018 -- September 26, 2018)**

**Explanation of Statistics:**

<b>MINIMUM OBSERVED</b>	The minimum of the values recorded by the datasonde in 15 minute intervals.
<b>MAXIMUM OBSERVED</b>	The maximum of the values recorded by the datasonde in 15 minute intervals.
<b>MEDIAN OBSERVED</b>	The median of all the values recorded by the datasonde in 15 minute intervals.
<b>MEAN OBSERVED</b>	The average of all the values recorded by the datasonde in 15 minute intervals.
<b>STANDARD DEVIATION</b>	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	
	Time	Result	Time	Result	Time	Result	Time	Result
<i>Escherichia coli</i> (MPN/100mL)								
Total Suspended Solids (mg/L)								
Total Phosphorus (mg/L)								
Total Nitrogen (mg/L)								

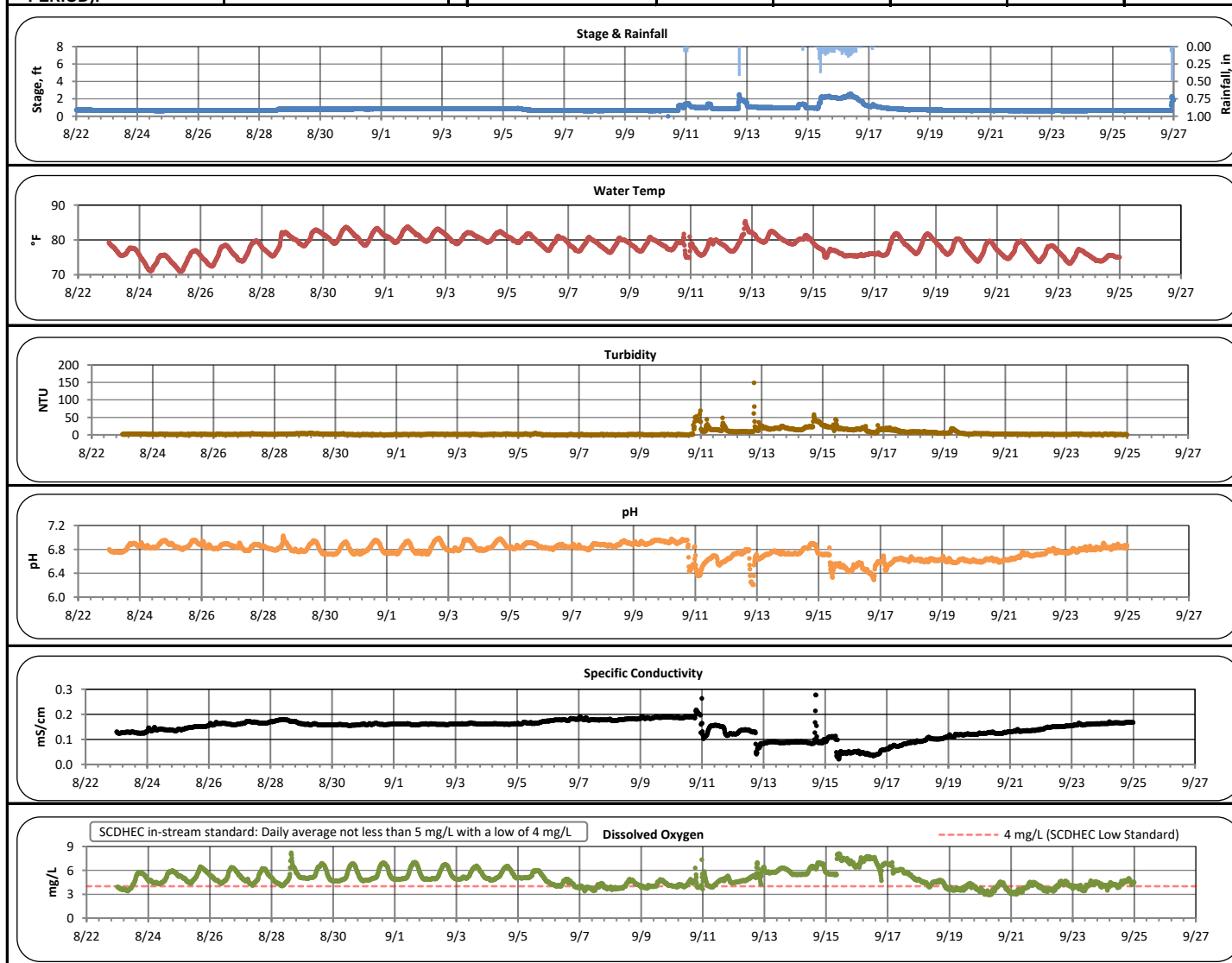
Note:

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

REPORT GENERATED ON 10/29/2018

**Kinley Creek A (August 22, 2018 -- September 26, 2018)**

PARAMETER	DESCRIPTION	CONTINUOUS WATER QUALITY PARAMETERS:	SUMMARY STATISTICS				
			MINIMUM OBSERVED	MAXIMUM OBSERVED	MEDIAN OBSERVED	MEAN OBSERVED	STANDARD DEVIATION
STREAM NAME:	Kinley Creek	STAGE (FT):	0.0	2.6	0.7	0.8	0.3
LOCATION:	Broken Hill Rd	TEMPERATURE (°F):	71	85	78	78	3
ADDRESS:	609 Broken Hill Rd Columbia, SC 29212	TURBIDITY (NTU):	1	150	2	6	9
COORDINATES:	34.06635, -81.159986	pH:	6.2	7.0	6.8	6.8	0.1
TMDL/IMPAIRMENT:	Fecal Coliform	SPECIFIC CONDUCTIVITY (mS/cm):	0.021	0.278	0.159	0.143	0.037
NEIGHBORING LANDUSE:	Residential and commercial	DISSOLVED OXYGEN (mg/L):	2.9	8.2	4.8	5.0	1.0
SPATIAL LOCATION:	Most downstream site						
TOTAL NO. STORMS OVER 0.1 INCH:	4						
MAX. DAILY RAINFALL:	1.7 inches						
TOTAL RAINFALL (FOR PERIOD):	4.6 inches						



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**

**Kinley Creek A (August 22, 2018 -- September 26, 2018)**

**Explanation of Statistics:**

<b>MINIMUM OBSERVED</b>	The minimum of the values recorded by the datasonde in 15 minute intervals.
<b>MAXIMUM OBSERVED</b>	The maximum of the values recorded by the datasonde in 15 minute intervals.
<b>MEDIAN OBSERVED</b>	The median of all the values recorded by the datasonde in 15 minute intervals.
<b>MEAN OBSERVED</b>	The average of all the values recorded by the datasonde in 15 minute intervals.
<b>STANDARD DEVIATION</b>	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	
	Time	Result	Time	Result	Time	Result	Time	Result
<i>Escherichia coli</i> (MPN/100mL)								
Total Suspended Solids (mg/L)								
Total Phosphorus (mg/L)								
Total Nitrogen (mg/L)								

Note:

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

REPORT GENERATED ON 10/29/2018