

## Kinley Creek Monitoring Sites

### *Data Gaps*

- No sensor fouling or malfunctions were observed at the KINA station during this monitoring period. The pressure transducer briefly stopped recording the stage at KINA on January 7th, but this problem was quickly corrected.
- At the KINB station, the turbidity probe became fouled at the end of the deployment period, beginning on December 25th. Because this fouling began over the holiday season, personnel were not available to correct this fouling until the sonde was retrieved for maintenance.

### *SCDHEC Standards*

- The average DO values at KINA and KINB both remained well above the SCDHEC daily average standard of 5 mg/L, with averages of 9.3 and 9.7 mg/L respectively. At both of these stations, these averages are the highest deployment average DO values recorded to date at these stations. The colder water temperatures over the past month are the most likely cause of these higher concentrations. Neither station record any levels below the instantaneous minimum of 4 mg/L.
- Neither of the Kinley Creek monitoring stations recorded pH values outside of the permissible range of 6.0 to 8.5. The pH standard was not violated during this deployment period.

### *Storm Events*

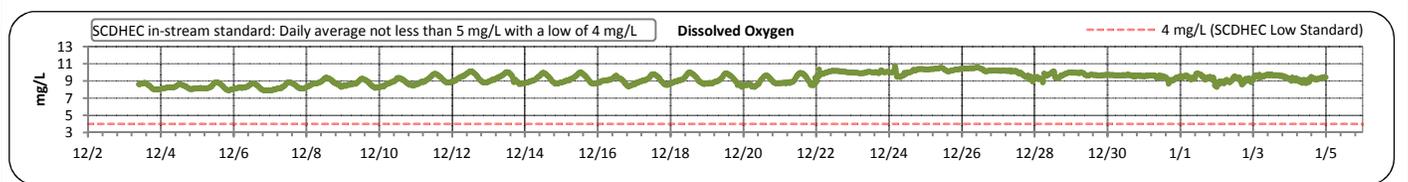
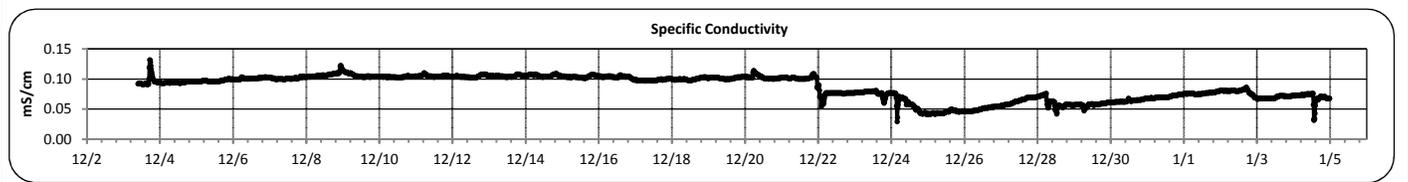
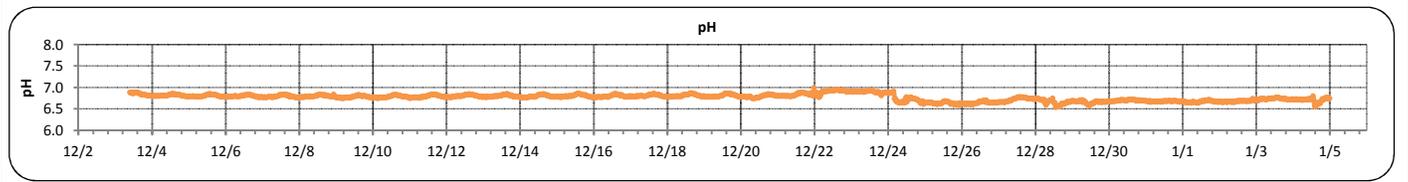
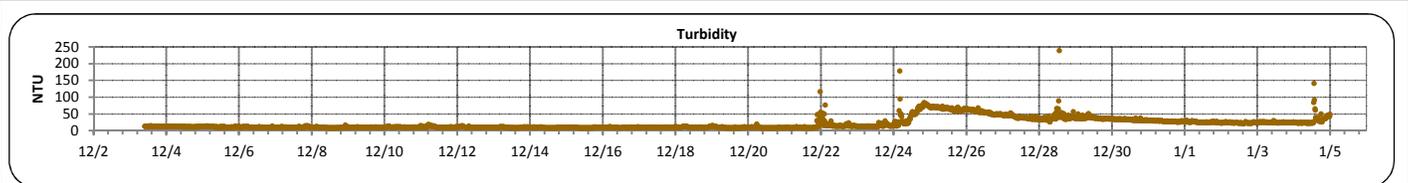
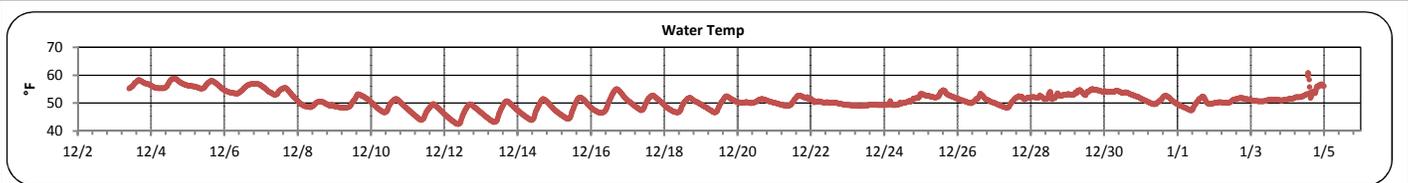
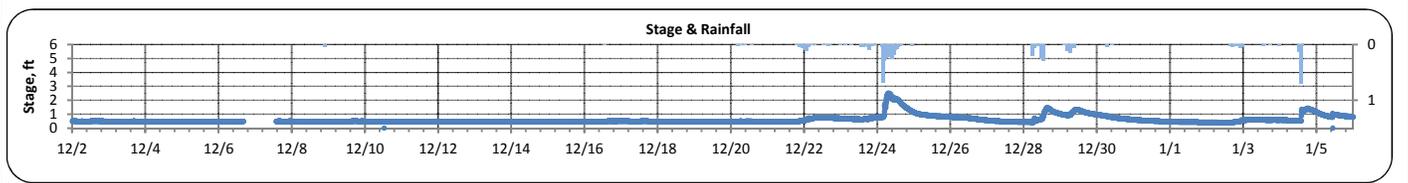
- The KIN rain gage recorded 7 storm events during this monitoring period.
- The largest daily rainfall was recorded on December 24th, when 2.4 inches fell at the Kinley Creek rain gage site.

### *Potential Illicit Discharges*

- At the KINA station, three potential illicit discharge events were recorded:
  - On December 3rd, the day of deployment, the specific conductivity increased, without a response in any other water quality parameters.
  - During two small rain events, on December 8th, and December 20th, the specific conductivity was also observed to increase. This activity may have been related to a sanitary sewer overflow or possibly surface pollution runoff.
- At KINB, several potential illicit discharge events were noted:
  - On December 5th, the specific conductivity, pH, turbidity, and stage all shows a coincident increase, while the DO levels in the creek dropped. The source of this event was not identified.
  - Throughout the remainder of the monitoring period, unusual water quality responses were noted during 4 very small storm events. These occurred on December 8th, 20th, and 30th, as well as on January 3rd. During these events, the specific conductivity and pH increased, an unusual response during a storm event. These small storm events may have generated enough runoff to convey pollutants to the stream, but not enough to have the typical dilution effect normally observed during storms.

**Kinley Creek A (Dec 2, 2014 -- Jan 6, 2015)**

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	2.5	0.5	0.6	0.3
LOCATION:	Longhorn Steakhouse	TEMPERATURE (°F):	42	61	51	51	3
ADDRESS:	171 Harbison Blvd Columbia, SC 29212	TURBIDITY (NTU):	8	240	12	21	17
COORDINATES:	34.069897, -81.164592	pH:	6.5	7.0	6.8	6.8	0.1
TMDL/IMPAIRMENT:	Fecal Coliform	SPECIFIC CONDUCTIVITY (mS/cm):	0.029	0.132	0.098	0.086	0.020
NEIGHBORING LANDUSE:	Residential and commercial	DISSOLVED OXYGEN (mg/L):	7.9	10.8	9.3	9.3	0.7
SPATIAL LOCATION:	Most upstream site						
TOTAL NO. STORMS OVER 0.1 INCH:	7						
MAX. DAILY RAINFALL:	2.4 inches						
TOTAL RAINFALL (FOR PERIOD):	5.9 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 (Dec 2, 2014 -- Jan 6, 2015)**

**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.

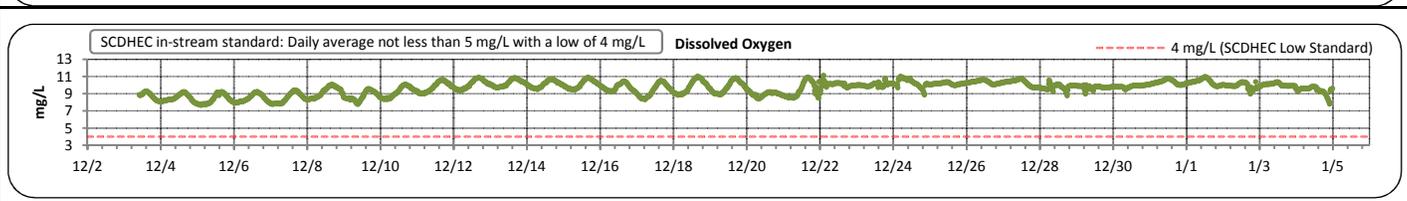
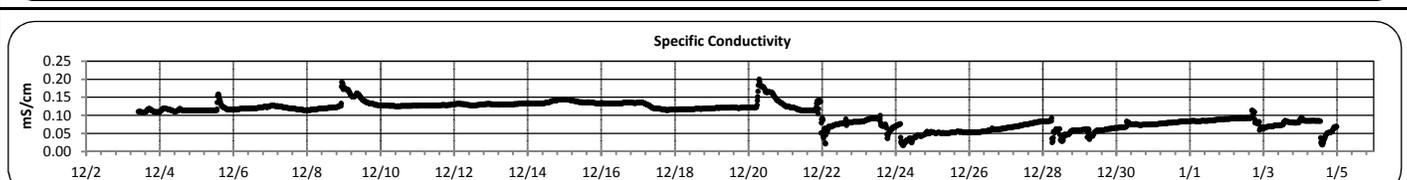
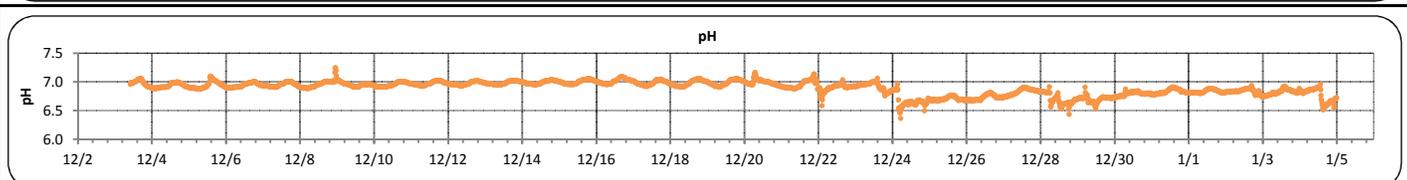
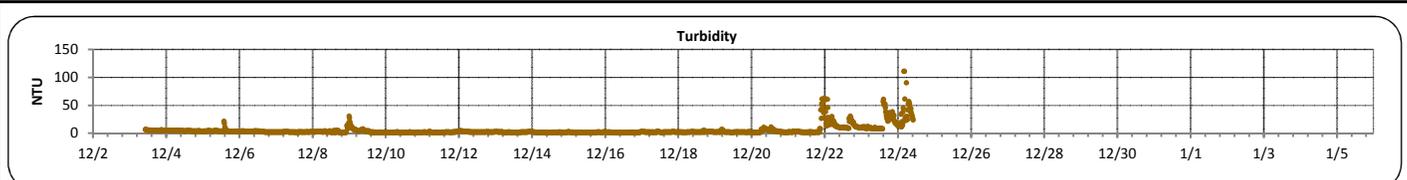
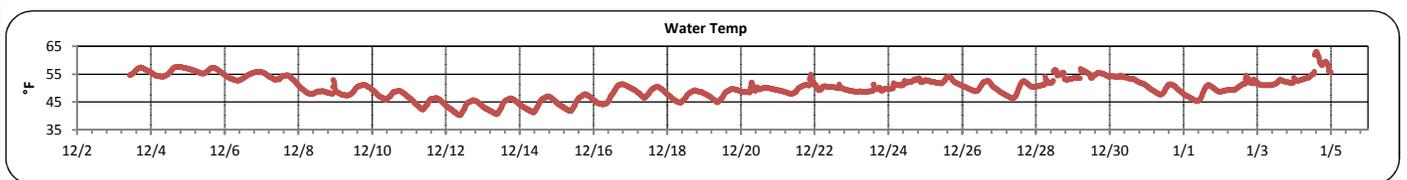
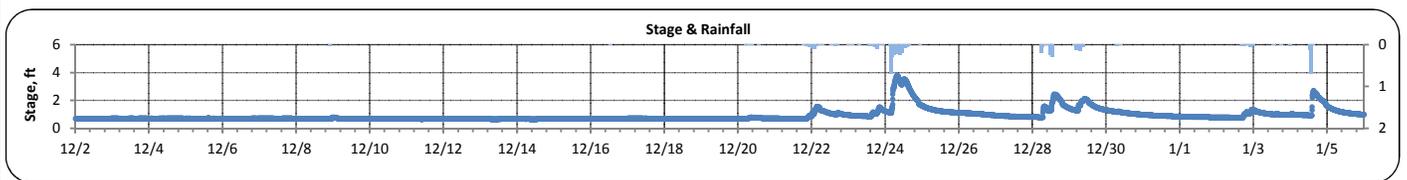
**Grab Sample Data:**

Analyte (units)	Sample 1		Sample 2		Sample 3		Sample 4	
	12/23/2014							
	Time	Result	Time	Result	Time	Result	Time	Result
<i>Escherichia coli</i> (MPN/100mL)	11:18	530.0						
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.

**Kinley Creek B (Dec 2, 2014 -- Jan 6, 2015)**

PARAMETER	DESCRIPTION	CONTINUOUS WATER QUALITY PARAMETERS:	SUMMARY STATISTICS				
			MINIMUM OBSERVED	MAXIMUM OBSERVED	MEDIAN OBSERVED	MEAN OBSERVED	STANDARD DEVIATION
STREAM NAME:	Kinley Creek	STAGE (FT):	0.7	3.8	0.7	0.9	0.4
LOCATION:	Broken Hill Rd	TEMPERATURE (°F):	40	63	50	50	4
ADDRESS:	609 Broken Hill Rd Columbia, SC 29212	TURBIDITY (NTU):	1	111	2	5	9
COORDINATES:	34.06635, -81.159986	pH:	6.4	7.3	6.9	6.9	0.1
TMDL/IMPAIRMENT:	Fecal Coliform	SPECIFIC CONDUCTIVITY (mS/cm):	0.017	0.200	0.115	0.102	0.032
NEIGHBORING LANDUSE:	Residential and commercial	DISSOLVED OXYGEN (mg/L):	7.7	11.2	9.9	9.7	0.8
SPATIAL LOCATION:	Most downstream site						
TOTAL NO. STORMS OVER 0.1 INCH:	7						
MAX. DAILY RAINFALL:	2.4 inches						
TOTAL RAINFALL (FOR PERIOD):	5.9 inches						



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

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**Explanation of Statistics:**

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<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	
	12/23/2014							
	Time	Result	Time	Result	Time	Result	Time	Result
<i>Escherichia coli</i> (MPN/100mL)	11:33	650						
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.