Kinley Creek Monitoring Sites

Data Gaps

- Neither of the Kinley Creek stations experienced any submergence or fouling issues during this deployment period.

SCDHEC Standards

- The average DO values at KINA and KINB both increased over 1 mg/L from the last deployment period, likely as a result of colder temperatures during this monitoring period. The KINA and KINB stations recorded average DO concentrations of 10.7 and 11.0 mg/L, respectively, well above the SCDHEC daily average limit of 5 mg/L. Furthermore, the SCDHEC instantaneous minimum of 4 mg/L was not violated during this deployment period.
- One violation of the SCDHEC pH standard was noted during this monitoring period. At the KINA station, the pH increased up to 8.9 during a suspected illicit discharge event on January 29th.

Storm Events

- The KIN rain gage recorded only 3 storm events during this monitoring period.
- The largest daily rainfall was recorded on January 12th, when 2.9 inches of rain fell at the Kinley Creek rain gage site.
- During all 3 of the recorded storm events, the specific conductivity increased at the onset of the event, possibly due to an initial wash-off of pollutants.

Potential Illicit Discharges

- At the KINA station, 4 potential illicit discharge events were recorded:
    - On January 16th, 20th, and 28th, slight increases in specific conductivity levels were noted. These increases lasted a couple of hours before the water quality appeared to return to ambient levels. The January 16th and 20th events were also accompanied by a very slight increase in pH levels.
    - On January 29th, a potential illicit discharge caused an extreme increase in pH levels, from 6.8 to 8.9, above the SCDHEC upper limit of 8.5. An increase in specific conductivity was also noted during this event.
- At KINB, 1 potential illicit discharge event was recorded during this monitoring period. On January 29th, the turbidity in Kinley Creek at KINB increased up to 135 NTU. During this time, the stage at the station also increased very slightly. This turbidity increase was not observed at the KINA station, so the source of this suspected illicit discharge is likely between these two stations.

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

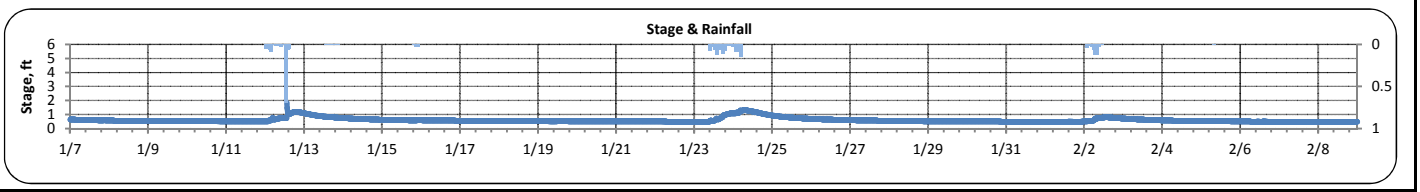
Continuous Water Quality Monitoring Periodic Report

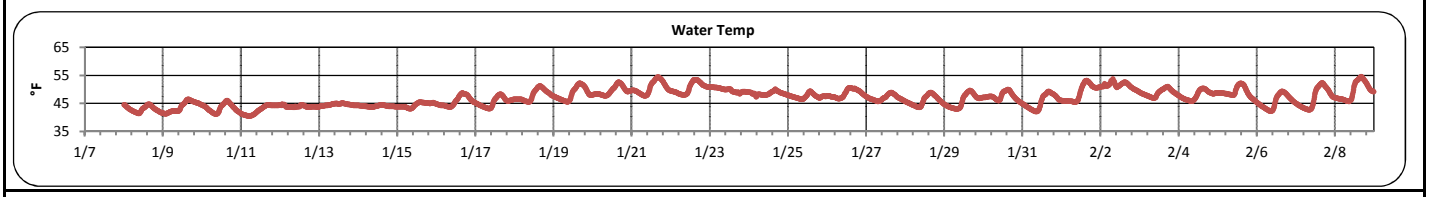
Kinley Creek A (Jan 7 -- Feb 8, 2015)

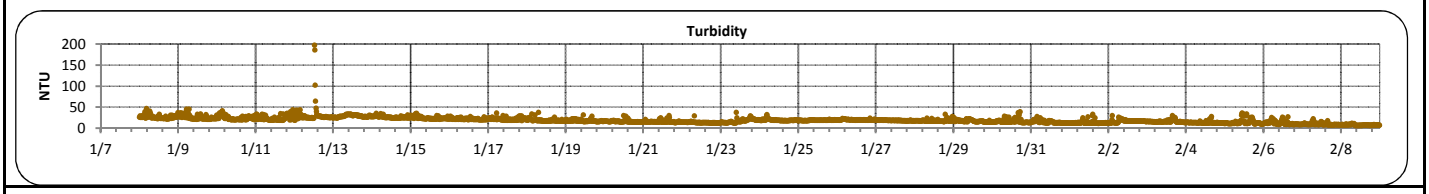
WOOLPERT — DESIGN | GEOSPATIAL | INFRASTRUCTURE

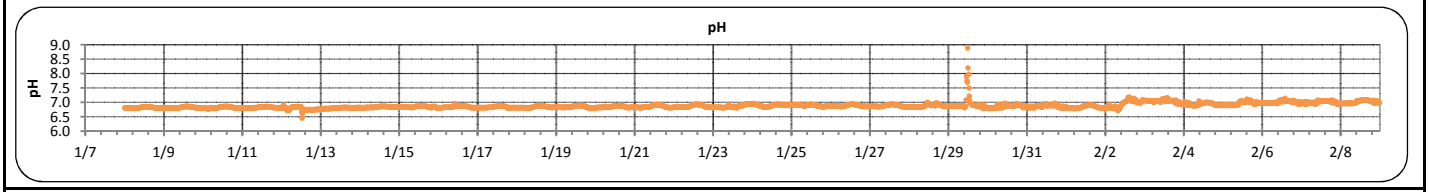
PARAMETER	DESCRIPTION
STREAM NAME:	Kinley Creek
LOCATION:	Longhorn Steakhouse
ADDRESS:	171 Harbison Blvd Columbia, SC 29212
COORDINATES:	34.069897, -81.164592
TMDL/IMPAIRMENT:	Fecal Coliform
NEIGHBORING LANDUSE:	Residential and commercial
SPATIAL LOCATION:	Most upstream site
TOTAL NO. STORMS OVER 0.1 INCH:	3
MAX. DAILY RAINFALL:	1.2 inches
TOTAL RAINFALL (FOR PERIOD):	2.9 inches

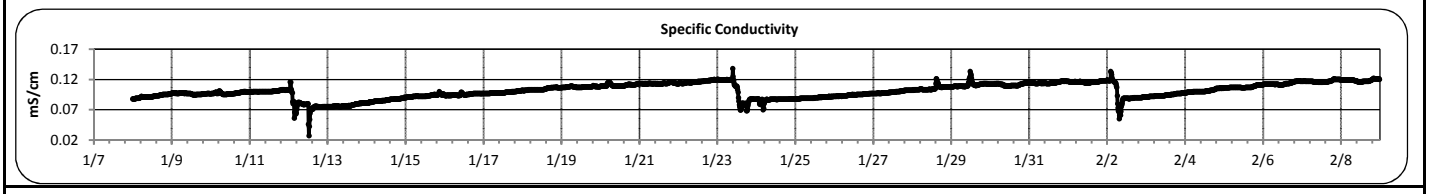
CONTINUOUS WATER QUALITY PARAMETERS:	SUMMARY STATISTICS				
	MINIMUM OBSERVED	MAXIMUM OBSERVED	MEDIAN OBSERVED	MEAN OBSERVED	STANDARD DEVIATION
STAGE (FT):	0.5	1.8	0.5	0.6	0.2
TEMPERATURE (°F):	40	55	47	47	3
TURBIDITY (NTU):	7	197	18	19	8
pH:	6.5	8.9	6.9	6.9	0.1
SPECIFIC CONDUCTIVITY (mS/cm):	0.027	0.138	0.101	0.101	0.012
DISSOLVED OXYGEN (mg/L):	9.2	12.1	10.7	10.7	0.6

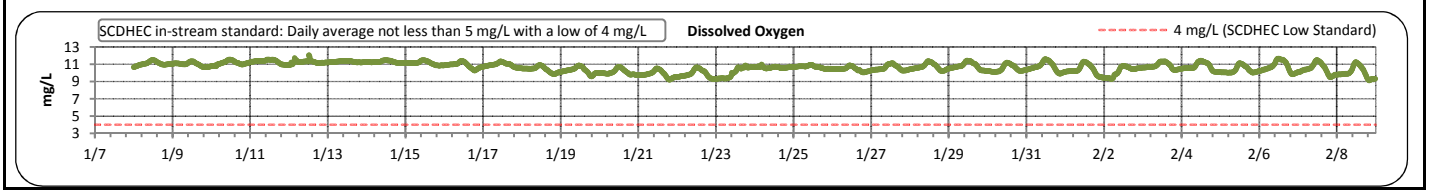












Note: Data gaps appear when the sonde is removed for calibration or when the flow depth is below the sensors

REPORT GENERATED ON 2/23/2015

Continuous Water Quality
Monitoring Periodic Report

Kinley Creek A (Jan 7 -- Feb 8, 2015)

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	
	1/23/2015		2/2/2015		2/2/2015			
	Time	Result	Time	Result	Time	Result	Time	Result
Escherichia coli (MPN/100mL)	10:09	>24,196	8:35	4,106	10:55	1,500		
Total Suspended Solids (mg/L)			8:35	7				
Total Phosphorus (mg/L)			8:35	0.059				
Total Nitrogen (mg/L)			8:35	0.72				

Note: One preliminary sample was collected on January 23rd pror to an increase in the creek's stage. Due to the delay of the storm event, the collection and analysis of samples were not feasible for this event.

City of Columbia, SC Stormwater Management
Partnering for clean waterways

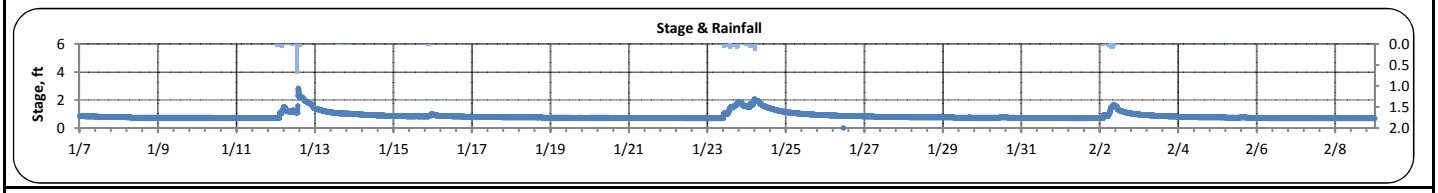
Continuous Water Quality Monitoring Periodic Report

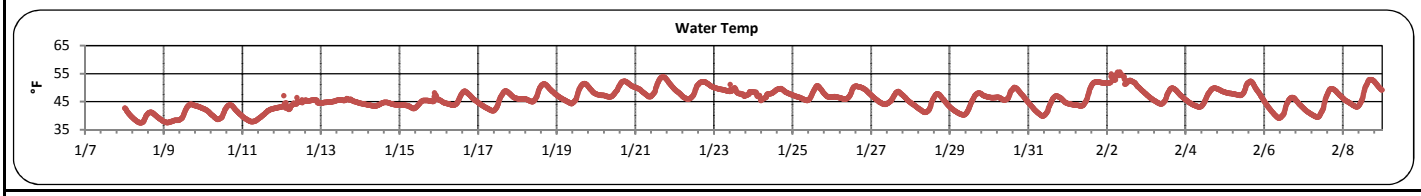
Kinley Creek B (Jan 7 -- Feb 8, 2015)

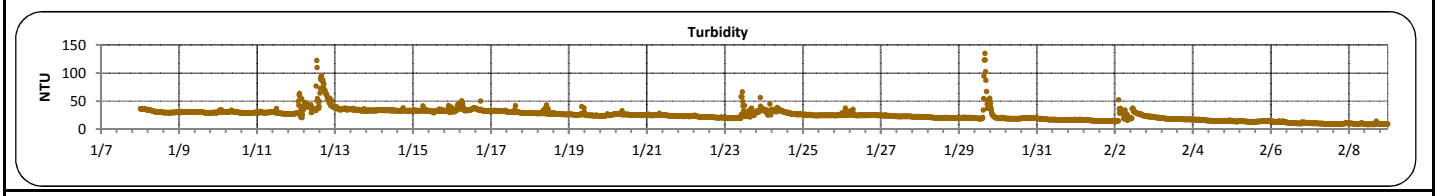
WOOLPERT
DESIGN | GEOSPATIAL | INFRASTRUCTURE

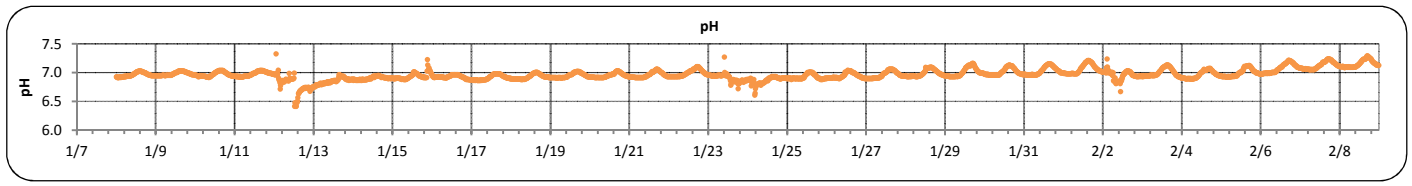
PARAMETER	DESCRIPTION
STREAM NAME:	Kinley Creek
LOCATION:	Broken Hill Rd
ADDRESS:	609 Broken Hill Rd Columbia, SC 29212
COORDINATES:	34.06635, -81.159986
TMDL/IMPAIRMENT:	Fecal Coliform
NEIGHBORING LANDUSE:	Residential and commercial
SPATIAL LOCATION:	Most downstream site
TOTAL NO. STORMS OVER 0.1 INCH:	3
MAX. DAILY RAINFALL:	1.2 inches
TOTAL RAINFALL (FOR PERIOD):	2.9 inches

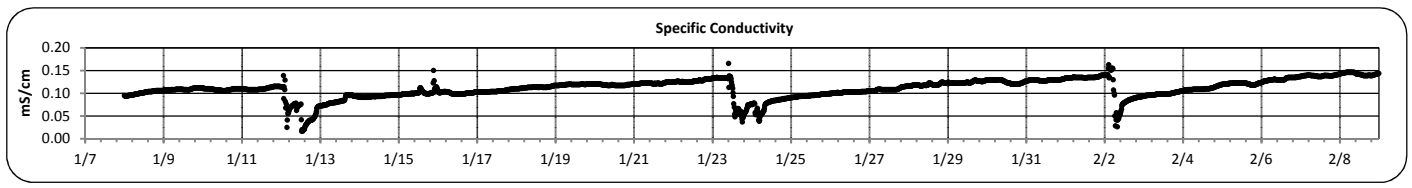
CONTINUOUS WATER QUALITY PARAMETERS:	SUMMARY STATISTICS				
	MINIMUM OBSERVED	MAXIMUM OBSERVED	MEDIAN OBSERVED	MEAN OBSERVED	STANDARD DEVIATION
STAGE (FT):	0.0	2.8	0.8	0.8	0.2
TEMPERATURE (°F):	37	56	46	46	4
TURBIDITY (NTU):	8	135	25	25	10
pH:	6.4	7.3	7.0	7.0	0.1
SPECIFIC CONDUCTIVITY (mS/cm):	0.016	0.166	0.111	0.110	0.021
DISSOLVED OXYGEN (mg/L):	8.3	13.2	11.0	11.0	0.8

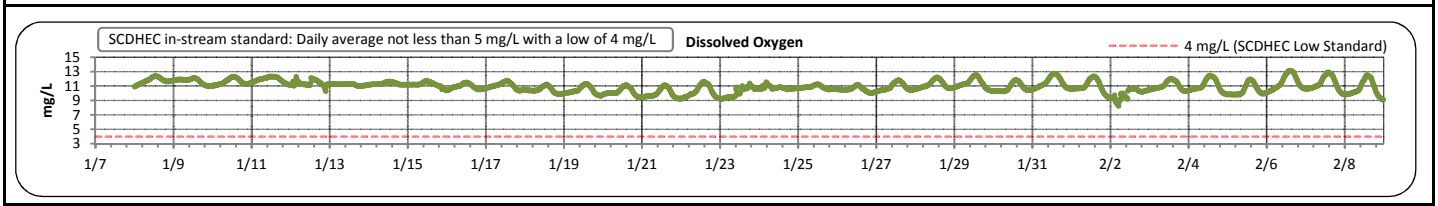












Note: Data gaps appear when the sonde is removed for calibration or when the flow depth is below the sensors

REPORT GENERATED ON 2/23/2015

Continuous Water Quality
Monitoring Periodic Report

Kinley Creek B (Jan 7 -- Feb 8, 2015)

Explanation of Statistics:

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STANDARD DEVIATION	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	
	1/23/2015		2/2/2015		2/2/2015			
	Time	Result	Time	Result	Time	Result	Time	Result
Escherichia coli (MPN/100mL)	10:27	749	8:21	1,211	11:06	767		
Total Suspended Solids (mg/L)			8:22	21.2				
Total Phosphorus (mg/L)			8:21	0.051				
Total Nitrogen (mg/L)			8:21	0.63				

Note: One preliminary sample was collected on January 23rd pror to an increase in the creek's stage. Due to the delay of the storm event, the collection and analysis of samples were not feasible for this event.

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