Kinley Creek Monitoring Sites

Monitoring Data Summary for
October 3rd, 2019 – November 6th, 2019

Data Gaps

- Neither of the Kinley Creek monitoring stations experienced interruptions in the data during this monitoring period.

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 5.4 mg/L and 6.7 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 2 mg/L, which is below the SCDHEC instantaneous minimum standard of 4 mg/L. These low DO values were recorded during an extended dry period, likely caused by low flow conditions in the creek.
- The instantaneous minimum DO value recorded at the KINB station was 4.7 mg/L, which is above the SCDHEC instantaneous minimum standard of 4 mg/L.

Storm Events

- The rain gauge along Kinley Creek recorded 8 storm events during this deployment period that resulted in a total of 3.2 inches of precipitation.
- The KINA station mostly recorded typical response patterns to storm events during this monitoring period. The pH and DO increased in response to the storm events on October 16th and 20th which are not typical storm response patterns for those parameters.
- The KINB station 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 12.8 days in the Kinley Creek watershed, occurring before the storm event on October 13th.

Potential Illicit Discharges and Abnormal Events

- At the KINA station, the specific conductivity increased significantly on October 3rd-4th.
- There were no potential illicit discharges or abnormal events observed at the KINB station.

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

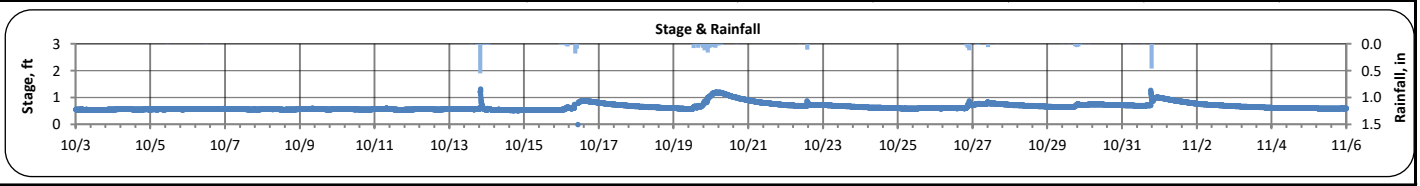
Continuous Water Quality Monitoring Periodic Report

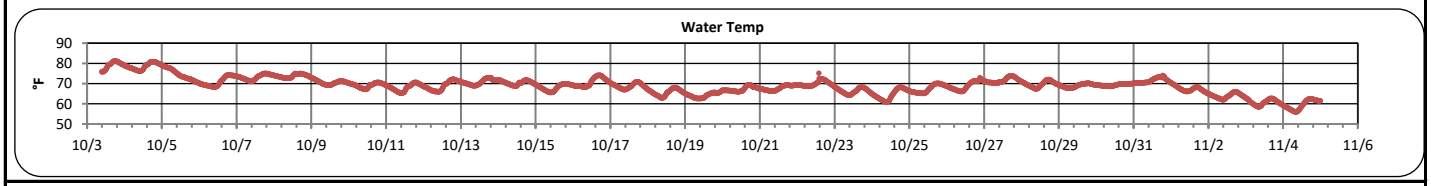
WOOLPERT

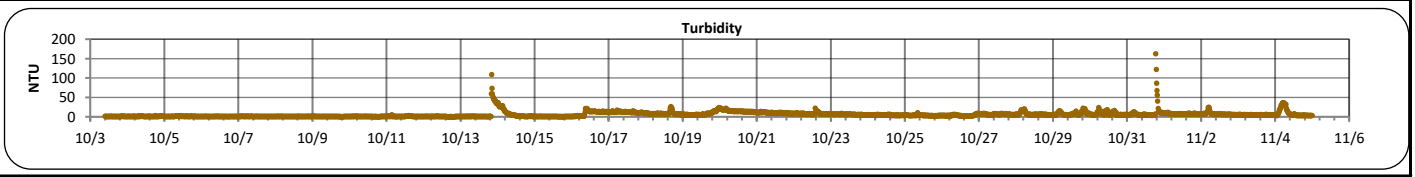
Kinley Creek A (October 3, 2019 - November 6, 2019)

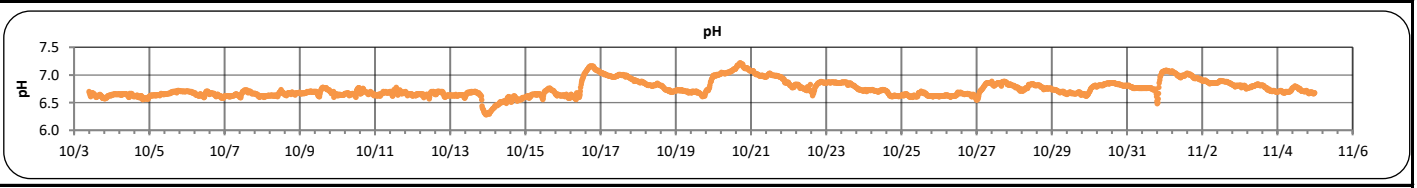
PARAMETER	DESCRIPTION
STREAM NAME:	Kinley Creek
LOCATION:	Longhorn Steakhouse
ADDRESS:	171 Harbison Blvd Columbia, SC 29212
COORDINATES:	34.069897, -81.164592
TMDL/IMPAIRMENT:	Fecal Coliform
NEIGHBORING LANDUSE:	Residential and commercial
SPATIAL LOCATION:	Most upstream site
TOTAL NO. STORMS OVER 0.1 INCH:	8
MAX. DAILY RAINFALL:	0.7 inches
TOTAL RAINFALL (FOR PERIOD):	3.2 inches

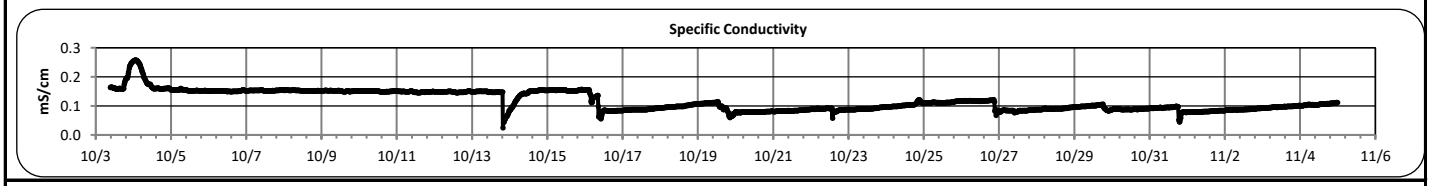
CONTINUOUS WATER QUALITY PARAMETERS:	SUMMARY STATISTICS				
	MINIMUM OBSERVED	MAXIMUM OBSERVED	MEDIAN OBSERVED	MEAN OBSERVED	STANDARD DEVIATION
STAGE (FT):	0.0	1.3	0.6	0.7	0.1
TEMPERATURE (°F):	56	81	69	69	4
TURBIDITY (NTU):	1	163	5	6	7
pH:	6.3	7.2	6.7	6.7	0.1
SPECIFIC CONDUCTIVITY (mS/cm):	0.025	0.258	0.104	0.117	0.034
DISSOLVED OXYGEN (mg/L):	2.0	8.4	5.4	5.4	1.3

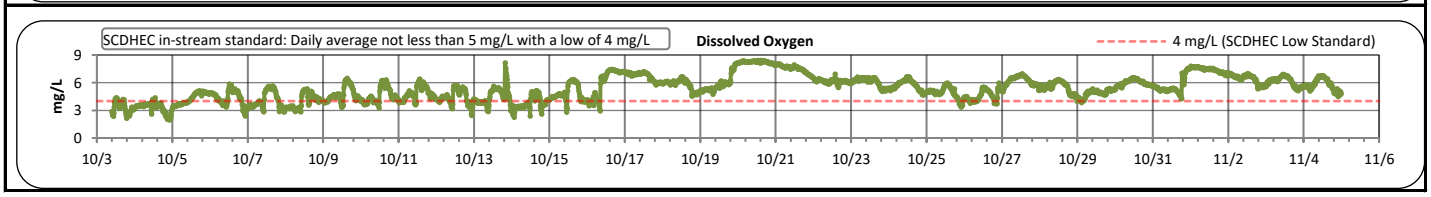












Note: Data gaps appear when the sonde is removed for calibration or when the flow depth is below the sensors

REPORT GENERATED ON 04/21/2020

Continuous Water Quality
Monitoring Periodic Report

Kinley Creek A (October 3, 2019 - November 6, 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:

Analyte (units)	Sample 1		Sample 2		Sample 3		Sample 4		Sample 5	
	10/7/2019		10/16/2019		10/16/2019		10/16/2019		10/16/2019	
	Time	Result	Time	Result	Time	Result	Time	Result	Time	Result
Escherichia coli (MPN/100mL)	10:40	1864	8:25	15,400	9:10	7308	10:25	6510	11:20	4494
Total Suspended Solids (mg/L)			8:25	16	9:10	14.9	10:25	10.8	11:20	12.5
Total Phosphorus (mg/L)			8:25	0.18	9:10	0.16	10:25	0.12	11:20	0.12
Total Nitrogen (mg/L)			8:25	1.03	9:10	1.03	10:25	1.13	11:20	1.34

Note: Sample 1 was taken during dry weather conditions. Samples 2, 3, 4, and 5 were taken during wet weather conditions.

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

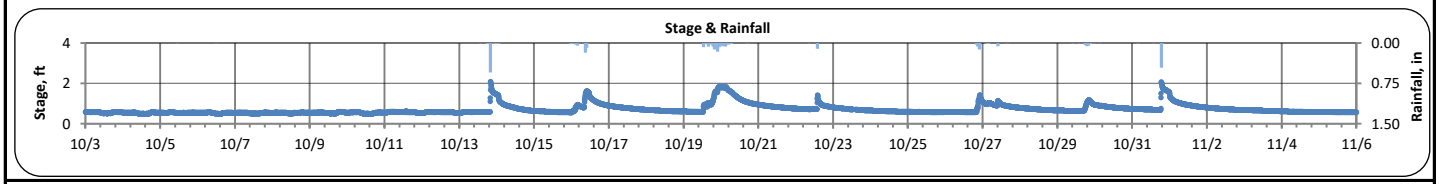
Continuous Water Quality Monitoring Periodic Report

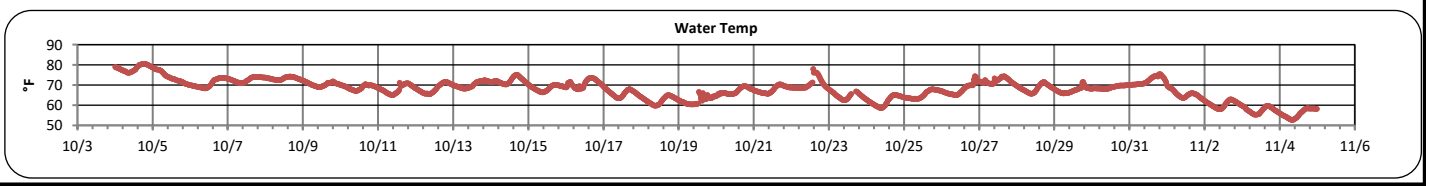
WOOLPERT

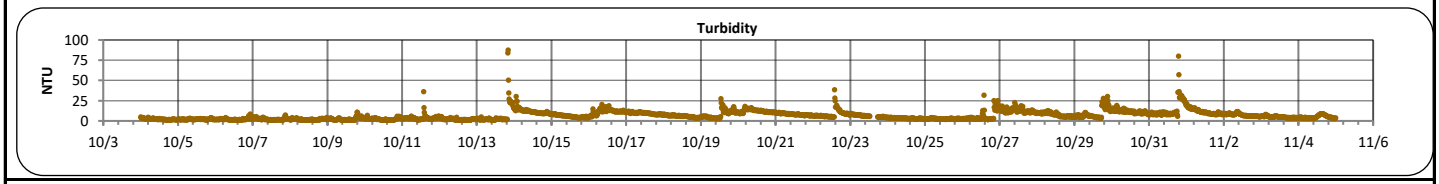
Kinley Creek B (October 3, 2019 - November 6, 2019)

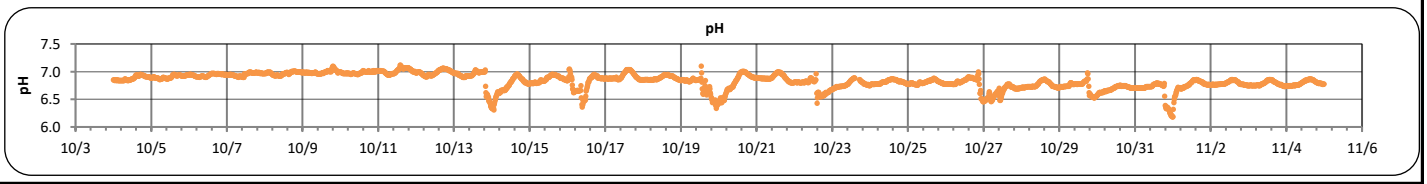
PARAMETER	DESCRIPTION
STREAM NAME:	Kinley Creek
LOCATION:	Broken Hill Rd
ADDRESS:	609 Broken Hill Rd Columbia, SC 29212
COORDINATES:	34.06635, -81.159986
TMDL/IMPAIRMENT:	Fecal Coliform
NEIGHBORING LANDUSE:	Residential and commercial
SPATIAL LOCATION:	Most downstream site
TOTAL NO. STORMS OVER 0.1 INCH:	8
MAX. DAILY RAINFALL:	0.7 inches
TOTAL RAINFALL (FOR PERIOD):	3.2 inches

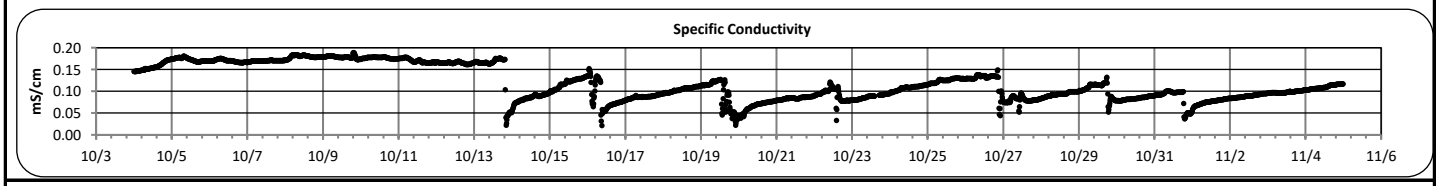
CONTINUOUS WATER QUALITY PARAMETERS:	SUMMARY STATISTICS				
	MINIMUM OBSERVED	MAXIMUM OBSERVED	MEDIAN OBSERVED	MEAN OBSERVED	STANDARD DEVIATION
STAGE (FT):	0.5	2.1	0.6	0.7	0.2
TEMPERATURE (°F):	53	81	69	68	5
TURBIDITY (NTU):	1	88	5	7	6
pH:	6.2	7.1	6.9	6.8	0.1
SPECIFIC CONDUCTIVITY (mS/cm):	0.022	0.189	0.107	0.118	0.040
DISSOLVED OXYGEN (mg/L):	4.7	8.9	6.7	6.7	0.8

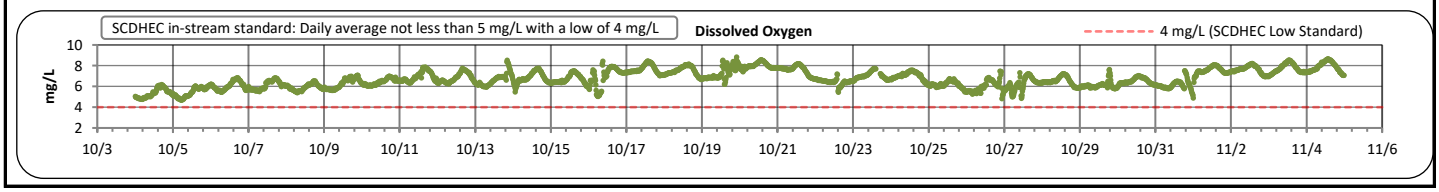












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Continuous Water Quality
Monitoring Periodic Report

Kinley Creek B (October 3, 2019 - November 6, 2019)

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Sampled Data:

Analyte (units)	Sample 1		Sample 2		Sample 3		Sample 4		Sample 5	
	10/7/2019		10/16/2019		10/16/2019		10/16/2019		10/16/2019	
	Time	Result	Time	Result	Time	Result	Time	Result	Time	Result
Escherichia coli (MPN/100mL)	10:59	374	8:45	1454	9:25	3936	10:45	9222	11:35	3444
Total Suspended Solids (mg/L)			8:45	43.9	9:25	20.4	10:45	12.8	11:35	20.7
Total Phosphorus (mg/L)			8:45	0.08	9:25	0.1	10:45	0.082	11:35	0.084
Total Nitrogen (mg/L)			8:45	0.49	9:25	0.7	10:45	0.82	11:35	1.06

Note: Sample 1 was taken during dry weather conditions. Samples 2, 3, 4, and 5 were taken during wet weather conditions.