Kinley Creek Monitoring Sites
Monitoring Data Summary for
February 20th, 2020 – March 25th, 2020

Data Gaps

- The battery at the KINA station was experiencing low voltages at the beginning of the deployment period which caused recording issues resulting in some data gaps. The battery was replaced on February 28th.
- At the KINB station, the turbidity sensor was buried in sediment from March 4th-5th and March 15th-19th. These periods of turbidity data were removed from the dataset.

SCDHEC Standards

- Neither of the Kinley Creek monitoring stations recorded pH readings that were outside of the SCDHEC acceptable range of 6 to 8.5.
- The KINA and KINB station recorded average DO concentrations of 9.3 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 5.9 mg/L and 4.7 mg/L at the KINB station, which are both 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 6.6 inches of precipitation.
- Both the KINA and KINB 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 17.7 days in the Kinley Creek watershed, occurring prior to the storm event on March 23rd.

Potential Illicit Discharges and Abnormal Events

- No potential illicit discharges or abnormal events occurred in the Kinley Creek watershed during this monitoring period.

Flow Measurements

- No flow measurements were taken in the Kinley Creek watershed during this monitoring period.

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

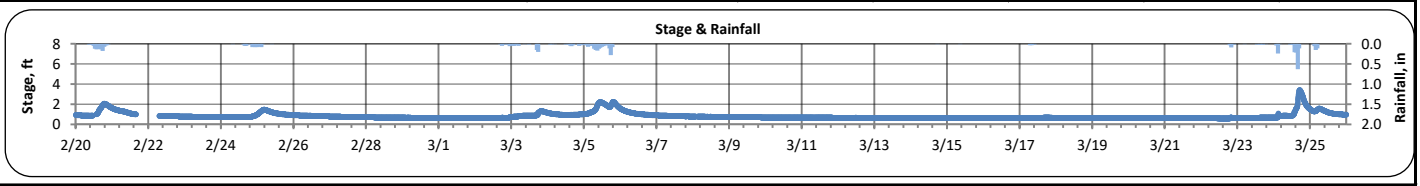
Continuous Water Quality Monitoring Periodic Report

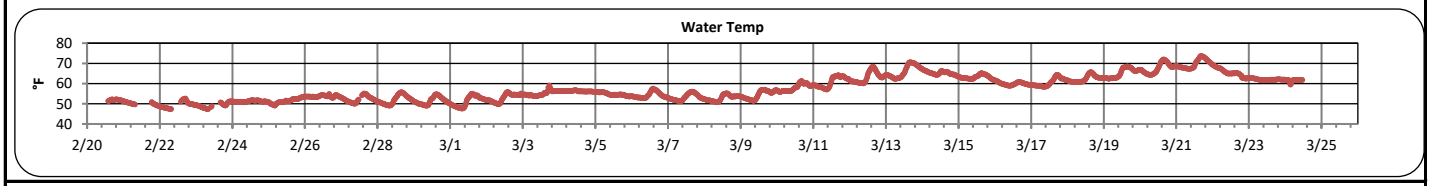
WOOLPERT

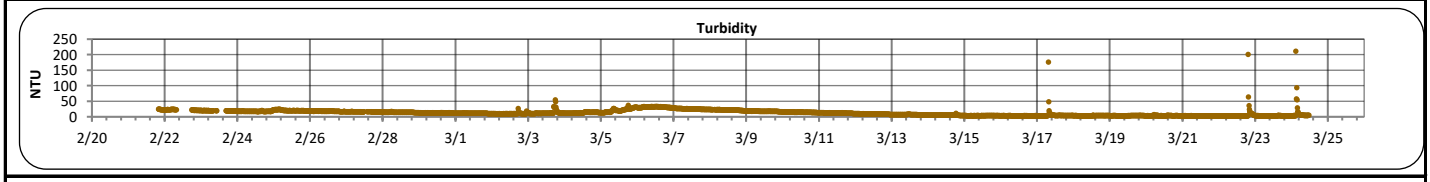
Kinley Creek A (February 20, 2020 - March 25, 2020)

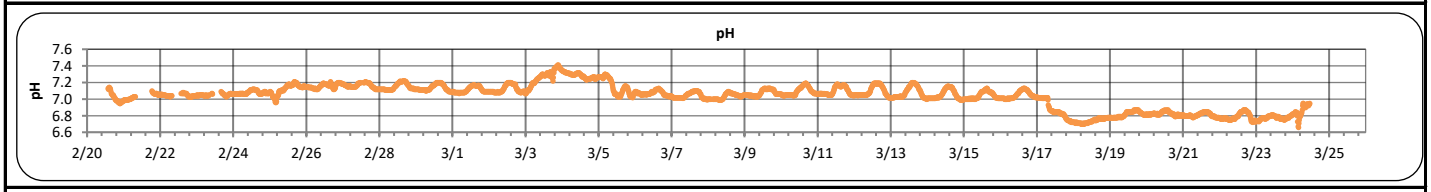
PARAMETER	DESCRIPTION
STREAM NAME:	Kinley Creek
LOCATION:	Longhorn Steakhouse
ADDRESS:	171 Harbison Blvd Columbia, SC 29212
COORDINATES:	34.069897, -81.164592
TMDL/IMPAIRMENT:	Fecal Coliform
NEIGHBORING LANDUSE:	Residential and commercial
SPATIAL LOCATION:	Most upstream site
TOTAL NO. STORMS OVER 0.1 INCH:	9
MAX. DAILY RAINFALL:	1.6 inches
TOTAL RAINFALL (FOR PERIOD):	6.6 inches

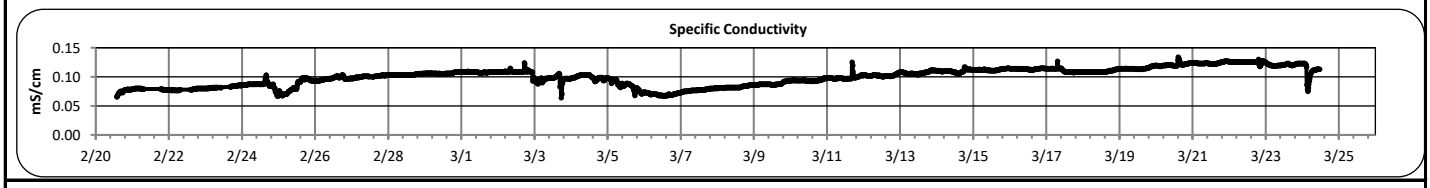
CONTINUOUS WATER QUALITY PARAMETERS:	SUMMARY STATISTICS				
	MINIMUM OBSERVED	MAXIMUM OBSERVED	MEDIAN OBSERVED	MEAN OBSERVED	STANDARD DEVIATION
STAGE (FT):	0.6	3.4	0.7	0.8	0.3
TEMPERATURE (°F):	47	74	56	58	6
TURBIDITY (NTU):	3	212	12	13	10
pH:	6.7	7.4	7.1	7.0	0.1
SPECIFIC CONDUCTIVITY (mS/cm):	0.064	0.134	0.103	0.100	0.015
DISSOLVED OXYGEN (mg/L):	5.9	11.0	9.8	9.3	1.2

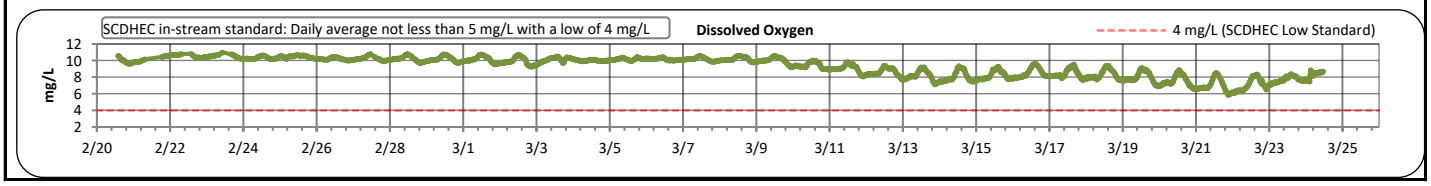












Note: Data gaps appear when the sonde is removed for calibration or when the flow depth is below the sensors

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Continuous Water Quality
Monitoring Periodic Report

Kinley Creek A (February 20, 2020 - March 25, 2020)

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	
	3/5/2020		3/5/2020		3/5/2020		3/5/2020		3/10/2020	
	Time	Result	Time	Result	Time	Result	Time	Result	Time	Result
Escherichia coli (MPN/100mL)	9:25	2396	11:15	1,714	13:00	1366	14:45	2190	13:03	150
Total Suspended Solids (mg/L)	9:25	21.4	11:15	18.5	13:00	18.6	14:45	17.1		
Total Phosphorus (mg/L)	9:25	0.055	11:15	0.059	13:00	0.07	14:45	0.028		
Total Nitrogen (mg/L)	9:25	1.31	11:15	0.92	13:00	0.59	14:45	0.59		

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

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

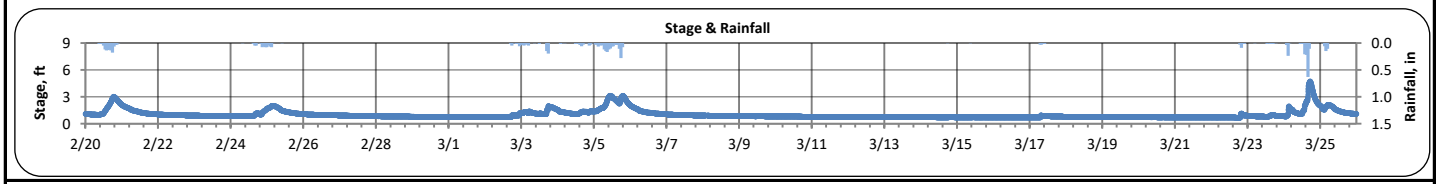
Continuous Water Quality Monitoring Periodic Report

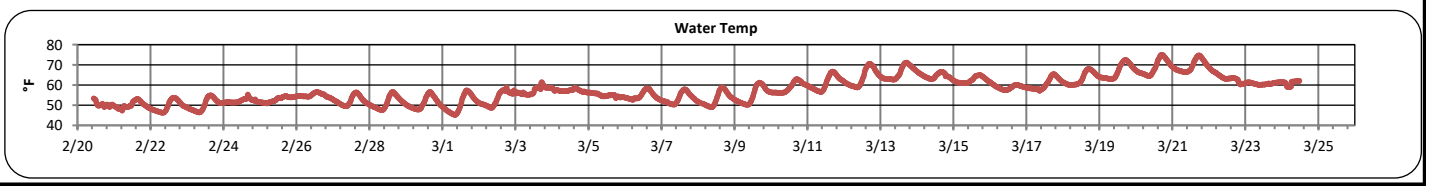
WOOLPERT

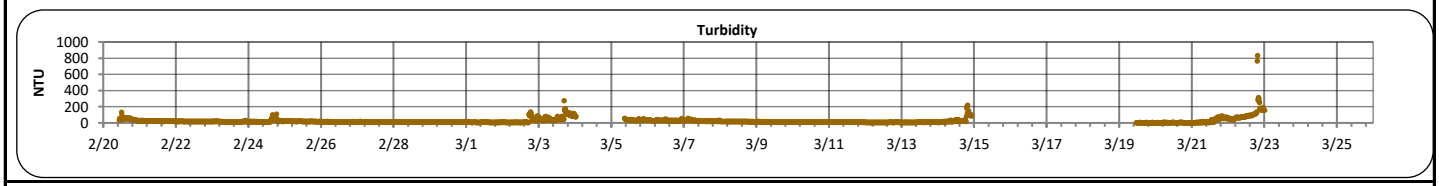
Kinley Creek B (February 20, 2020 - March 25, 2020)

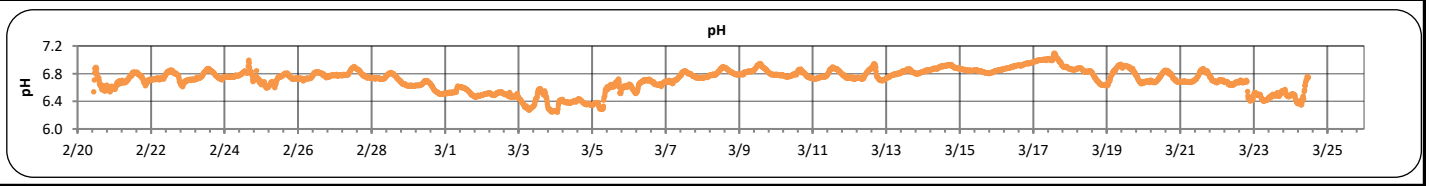
PARAMETER	DESCRIPTION
STREAM NAME:	Kinley Creek
LOCATION:	Broken Hill Rd
ADDRESS:	609 Broken Hill Rd Columbia, SC 29212
COORDINATES:	34.06635, -81.159986
TMDL/IMPAIRMENT:	Fecal Coliform
NEIGHBORING LANDUSE:	Residential and commercial
SPATIAL LOCATION:	Most downstream site
TOTAL NO. STORMS OVER 0.1 INCH:	9
MAX. DAILY RAINFALL:	1.6 inches
TOTAL RAINFALL (FOR PERIOD):	6.6 inches

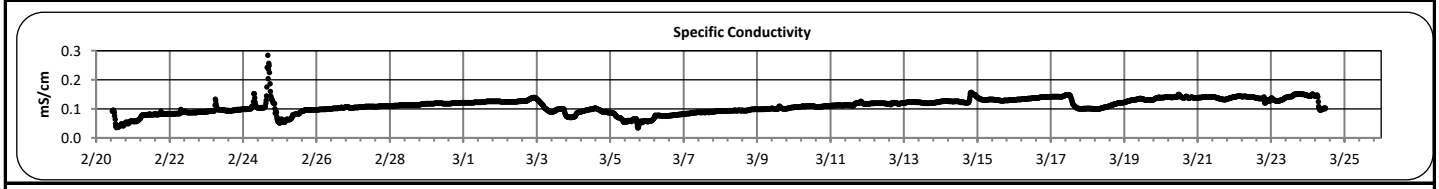
CONTINUOUS WATER QUALITY PARAMETERS:	SUMMARY STATISTICS				
	MINIMUM OBSERVED	MAXIMUM OBSERVED	MEDIAN OBSERVED	MEAN OBSERVED	STANDARD DEVIATION
STAGE (FT):	0.7	4.8	0.8	1.0	0.5
TEMPERATURE (°F):	45	75	57	58	6
TURBIDITY (NTU):	4	832	16	25	36
pH:	6.2	7.1	6.7	6.7	0.2
SPECIFIC CONDUCTIVITY (mS/cm):	0.035	0.285	0.112	0.110	0.025
DISSOLVED OXYGEN (mg/L):	4.7	11.2	9.1	8.7	1.5

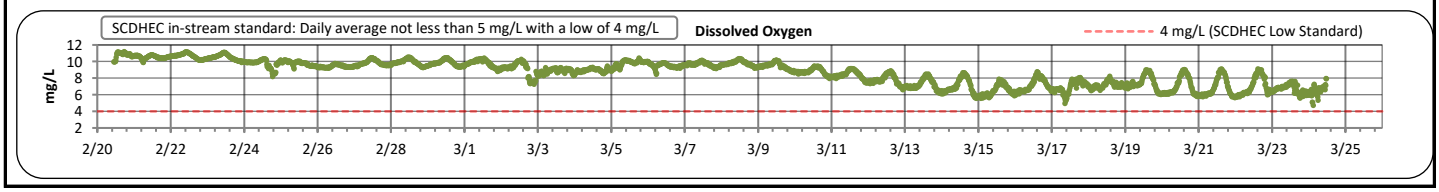












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Continuous Water Quality
Monitoring Periodic Report

Kinley Creek B (February 20, 2020 - March 25, 2020)

Explanation of Statistics:

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Sampled Data:

Analyte (units)	Sample 1		Sample 2		Sample 3		Sample 4		Sample 5	
	3/5/2020		3/5/2020		3/5/2020		3/5/2020		3/10/2020	
	Time	Result	Time	Result	Time	Result	Time	Result	Time	Result
Escherichia coli (MPN/100mL)	9:45	2,446	11:30	2582	13:30	1476	15:00	1508	13:24	374
Total Suspended Solids (mg/L)	9:45	42.3	11:30	31.2	13:30	27	15:00	21.8		
Total Phosphorus (mg/L)	9:45	0.059	11:30	0.045	13:30	0.054	15:00	0.049		
Total Nitrogen (mg/L)	9:45	0.92	11:30	1.05	13:30	0.47	15:00	0.74		

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

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