Kinley Creek Monitoring Sites

Monitoring Data Summary for August 22nd, 2018 – September 26th, 2018

Data Gaps

• Specific conductivity at the KINA station experienced abnormal readings from August 24th-August 31st, 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 10th 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 19th – August 21st).

Flow Measurements

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



Continuous Water Quality Monitoring Periodic Report



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

			CONTINUOUS	SUMMARY STATISTICS					
PARAMETER	DESCRIPTION		WATER QUALITY PARAMETERS:	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 171 Harbison Blvd Columbia, SC 29212		TEMPERATURE						
ADDRESS:			(°F):	71	83	79	79	2	
COORDINATES:	34.069897, -81.16	64592	TURBIDITY (NTU):	1	138	2	6	11	
TMDL/IMPAIRMENT:	Fecal Coliform		101(2)2111 (1110).		130	2	0	11	
NEIGHBORING LANDUSE:	Residential and com	nmercial	pH:	6.3	7.3	6.6	6.7	0.1	
SPATIAL LOCATION:	Most upstream	site	P		7.0	0.0	0.7	0.1	
TOTAL NO. STORMS OVER 0.1 INCH:	4		SPECIFIC CONDUCTIVITY (mS/cm):	0.045	0.483	0.134	0.130	0.037	
MAX. DAILY RAINFALL:	1.7 inches		DISSOLVED						
TOTAL RAINFALL (FOR PERIOD):	4.6 inches		OXYGEN (mg/L):	1.4	7.7	3.7	4.0	1.3	
		1	Stage & Raiı	nfall					
4								0.0	
At age, 5				9-9-7-				0.5	
0 +				9/11 9/13	9/15 9/17	· · · · · · · · · · · · · · · · · · ·	1 9/23 9/2	1.0 25 9/27	
8/22 8/24 8/26	8/28 8/30 9,	/1 9/3	9/5 9/7 9/9	9/11 9/13	-,,				
90	8/28 8/30 9	/1 9/3	9/5 9/7 9/9 Water Te		3,25 3,25				
90	ww	9/3			9/15 9/17	w	w	25 9/27	
90 80 70	ww	w	Water Te	9/11 9/13		w	w	25 9/27	
90 80 70 8/22 8/24 8/26	ww	w	9/5 9/7 9/9	9/11 9/13		w	w	25 9/27	
90 80 70 8/22 8/24 8/26	ww	w	9/5 9/7 9/9	9/11 9/13		w	w	25 9/27	
90 80 70 8/22 8/24 8/26	8/28 8/30 9	w	9/5 9/7 9/9 Turbidi	9/11 9/13	9/15 9/1:	7 9/19 9/2	21 9/23 9/:	25 9/27	
90 80 70 8/22 8/24 8/26	8/28 8/30 9	9/3	9/5 9/7 9/9 Turbidi	9/11 9/13	9/15 9/1:	7 9/19 9/2	21 9/23 9/:		
90 80 70 8/22 8/24 8/26 150 0 8/22 8/24 8/26	8/28 8/30 9	9/3	Water Ter 9/5 9/7 9/9 Turbidi 3 9/5 9/7 9/9	9/11 9/13	9/15 9/1:	7 9/19 9/2	21 9/23 9/:		
90 80 70 8/22 8/24 8/26 150 0 8/22 8/24 8/26	8/28 8/30 9	9/3	Water Ter 9/5 9/7 9/9 Turbidi	9/11 9/13	9/15 9/1:	7 9/19 9/2	21 9/23 9/:		
90 80 70 8/22 8/24 8/26 150 0 8/22 8/24 8/26	8/28 8/30 9	9/3	Water Ter 9/5 9/7 9/9 Turbidi	9/11 9/13	9/15 9/1:	7 9/19 9/2	21 9/23 9/2		
90 80 70 8/22 8/24 8/26 150 0 8/22 8/24 8/26	8/28 8/30 9	9/1 9/3	Water Tel	9/11 9/13 by 9/11 9/13	9/15 9/1:	7 9/19 9/2	21 9/23 9/2	25 9/27	
90 8/22 8/24 8/26 150 100 50 8/22 8/24 8/26 8 7 6 8/22 8/24 8/26	8/28 8/30 9	9/1 9/3	Water Tel 9/5 9/7 9/9 Turbidit 3 9/5 9/7 9/9 pH 9/5 9/7 9/9	9/11 9/13 by 9/11 9/13	9/15 9/1:	7 9/19 9/2	21 9/23 9/2	25 9/27	
90 80 70 8/22 8/24 8/26 150 0 8/22 8/24 8/26	8/28 8/30 9	9/1 9/3	Water Tel 9/5 9/7 9/9 Turbidit 3 9/5 9/7 9/9 pH 9/5 9/7 9/9	9/11 9/13 by 9/11 9/13	9/15 9/1:	7 9/19 9/2	21 9/23 9/2	25 9/27	
80 70 8/22 8/24 8/26 150 100 50 0 8/22 8/24 8/26 8 7 6 8/22 8/24 8/26	8/28 8/30 9 8/28 8/30	9/1 9/3	9/5 9/7 9/9 Turbidit 9/5 9/7 9/9 pH 9/5 9/7 9/9 Specific Cor	9/11 9/13 by 9/11 9/13 1	9/15 9/1: 3 9/15 9/3	7 9/19 9/2	21 9/23 9/	25 9/27	
90 80 70 8/22 8/24 8/26 150 0 8/22 8/24 8/26 8/26 8/26 8/26 8/26 8/26 8/26	8/28 8/30 9 8/28 8/30	9/1 9/3	9/5 9/7 9/9 Turbidit 9/5 9/7 9/9 pH 9/5 9/7 9/9 Specific Cor	9/11 9/13 by 9/11 9/13 1	9/15 9/1: 3 9/15 9/3	7 9/19 9/2	21 9/23 9/	25 9/27	
80 70 8/22 8/24 8/26 150 100 50 0 8/22 8/24 8/26	8/28 8/30 9 8/28 8/30	9/1 9/3 9/1 9/3 9/1 9/3	9/5 9/7 9/9 Turbidii 9/5 9/7 9/9 pH 9/5 9/7 9/9 Specific Cor	9/11 9/13 by 9/11 9/13 1	9/15 9/1: 3 9/15 9/3	7 9/19 9/2 17 9/19 9/	21 9/23 9/	/25 9/27 /25 9/27	
90 80 70 8/22 8/24 8/26 150 100 50 0 8/22 8/24 8/26 8/22 8/24 8/26 8	8/28 8/30 9 8/28 8/30 8/28 8/30	9/1 9/3 9/1 9/3 9/1 9/3	9/5 9/7 9/9 Turbidii 9/5 9/7 9/9 pH 9/5 9/7 9/9 Specific Cor	9/11 9/13 by 9/11 9/11 9/11 9/13 nductivity	9/15 9/1: 3 9/15 9/3	7 9/19 9/2 17 9/19 9/	21 9/23 9/2 21 9/23 9/2 21 9/23 9/2 21 9/23 9/23	/25 9/27 /25 9/27	
90 80 70 8/22 8/24 8/26 150 100 50 0 8/22 8/24 8/26 8/22 8/24 8/26 8	8/28 8/30 9 8/28 8/30 8/28 8/30	9/1 9/3 9/1 9/3 9/1 9/3	9/5 9/7 9/9 Turbidii 9/5 9/7 9/9 pH 9/5 9/7 9/9 Specific Cor	9/11 9/13 by 9/11 9/11 9/11 9/13 nductivity	9/15 9/1: 3 9/15 9/3	7 9/19 9/2 17 9/19 9/	21 9/23 9/2 21 9/23 9/2 21 9/23 9/2 21 9/23 9/23	/25 9/27 /25 9/27	

Continuous Water Quality Monitoring Periodic Report

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

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:

Analyta	Sample 1		Sample 2		Sample 3		Sample 4	
Analyte (units)								
(units)	Time	Result	Time	Result	Time	Result	Time	Result
Escherichia coli (MPN/100mL)								
Total Suspended Solids (mg/L)								
Total Phosphorus (mg/L)								
Total Nitrogen (mg/L)								

Note:



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STREAM NAME: LOCATION:	DESCRIPTION	CONTINUOUS	SUMMARY STATISTICS					
		WATER QUALITY PARAMETERS:	MINIMUM OBSERVED	MAXIMUM OBSERVED	MEDIAN OBSERVED	MEAN OBSERVED	STANDARD DEVIATION	
LOCATION:	Kinley Creek	STAGE (FT):	0.0	2.6	0.7	0.8	0.3	
1.	Broken Hill Rd	TEMPERATURE (0F)	74				2	
ADDRESS:	609 Broken Hill Rd Columbia, SC 29212	TEMPERATURE (°F):	71	85	78	78	3	
COORDINATES:	34.06635, -81.159986	TURBIDITY (NTU):	1	150	2	6	9	
TMDL/IMPAIRMENT:	Fecal Coliform	TORBIDITY (NTO):	1	150	2	0	9	
NEIGHBORING LANDUSE:	Residential and commercial	pH:	6.2	7.0	6.8	6.8	0.1	
SPATIAL LOCATION:	Most downstream site	pri.	0.2	7.0	0.0	0.0	0.1	
TOTAL NO. STORMS OVER 0.1 INCH:	4	SPECIFIC CONDUCTIVITY (mS/cm):	0.021	0.278	0.159	0.143	0.037	
MAX. DAILY RAINFALL: TOTAL RAINFALL (FOR PERIOD):	1.7 inches 4.6 inches	DISSOLVED OXYGEN (mg/L):	2.9	8.2	4.8	5.0	1.0	
FERIOD).		Stage & Rainfa	ıll			<u> </u>	<u>!</u>	
90 8/22 8/24 8/26	8/28 8/30 9/1 9/3 8/28 8/30 9/1 9/3 8/28 8/30 9/1 9/3	9/5 9/7 9/9 Water Tem 9/5 9/7 9/9 Turbidity 3 9/5 9/7 9/9 pH	9/11 9/13	9/15 9/17		1 9/23 9/2		
7.2 6.8 6.4 6.0 8/22 8/24 8/26	8/28 8/30 9/1 9/3	9/5 9/7 9/9	9/11 9/13	9/15 9/17	7 9/19 9/2	21 9/23 9	/25 9/27	
표 ^{6.8} 6.0	8/28 8/30 9/1 9/3	9/5 9/7 9/9 Specific Cond		9/15 9/17	7 9/19 9/3	21 9/23 9	/25 9/27	
E 6.8 6.4 6.0 8/22 8/24 8/26	8/28 8/30 9/1 9/3			9/15 9/1:	7 9/19 9/2	21 9/23 9	/25 9/27	
E 0.3 8/22 8/24 8/26		Specific Cond		•			-	
E 0.3 0.3 0.2 0.2 0.1	8/28 8/30 9/1 9/3 8/28 8/30 9/1 9/3	Specific Cond					9/25 9/27	
E 6.8 6.4 6.0 8/22 8/24 8/26		Specific Cond	9/11 9/13		17 9/19 9		9/25 9/27	
E 6.8 6.4 6.0 8/22 8/24 8/26 0.1 0.0 8/22 8/24 8/26 SCDHEC in-stream stand	8/28 8/30 9/1 9/3	Specific Cond	9/11 9/13		17 9/19 9	/21 9/23	9/25 9/27	

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Sampled Data:

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Analyte (units)								
(units)	Time	Result	Time	Result	Time	Result	Time	Result
Escherichia coli (MPN/100mL)								
Total Suspended Solids (mg/L)								
Total Phosphorus (mg/L)								
Total Nitrogen (mg/L)								

Note: