## Kinley Creek Monitoring Sites

Monitoring Data Summary for June 19<sup>th</sup>, 2019 – July 25<sup>th</sup>, 2019

#### Data Gaps

- The KINA station did not have any interruptions in the data during this monitoring period.
- The KINB station experienced a brief period of fouling turbidity from July 13<sup>th</sup>-15<sup>th</sup>. This period of turbidity data was deleted.

#### SCDHEC Standards

- The KINA station did not record pH readings outside the SCDHEC acceptable range of 6 to 8.5. The KINB station recorded a maximum pH value of 9.1, which is outside of the acceptable pH range. These high values occurred during the storm event on July 23<sup>rd</sup>.
- The KINA station recorded an average DO concentration of 4.3 mg/L, which is lower than the SCDHEC daily average standard of 5 mg/L. The KINB station recorded an average DO concentration of 5.4 mg/L, which is above the SCDHEC daily average standard of 5 mg/L.
- The instantaneous minimum DO values recorded at the KINA and KINB stations were 1.0 mg/L and 3.7 mg/L, respectively, which are both below the SCDHEC instantaneous minimum DO standard of 4 mg/L.

#### Storm Events

- The rain gauge along Kinley Creek recorded 10 storm events during this deployment period that resulted in a total of 5.1 inches of precipitation.
- Both KINA and KINB stations recorded typical response patterns to the recorded storm events during this monitoring period.
- The maximum antecedent dry time since the last significant precipitation event (at least 0.1 inches) was approximately 14 days in the Kinley Creek watershed, occurring prior to the storm event on July 8<sup>th</sup>.

#### Potential Illicit Discharges and Abnormal Events

Abnormally high pH readings were recorded on July 23<sup>rd</sup> at the KINB monitoring station.

#### Flow Measurements

• No flow measurements were taken in the Kinley Creek watershed during this deployment period.



# **Continuous Water Quality Monitoring Periodic Report**



### Kinley Creek A (June 19, 2019 -- July 25, 2019)

	<b>DESCRIPTION</b> Kinley Creek		CONTINUOUS	SUMMARY STATISTICS					
PARAMETER			WATER QUALITY PARAMETERS:	MINIMUM OBSERVED	MAXIMUM OBSERVED	MEDIAN OBSERVED	MEAN OBSERVED	STANDARD DEVIATION	
STREAM NAME:			STAGE (FT):	0.5	2.0	0.7	0.7	0.2	
LOCATION:	Longhorn Steakhouse  171 Harbison Blvd Columbia, SC 29212  34.069897, -81.164592  Fecal Coliform								
ADDRESS:			TEMPERATURE (°F):	76	90	83	83	3	
COORDINATES:			TURBIDITY (NTU):	1	145	4	5	7	
TMDL/IMPAIRMENT:				·	140	4	5		
NEIGHBORING LANDUSE:	Residential and commercia	<u> </u>	pH:	6.4	7.6	6.7	6.8	0.2	
SPATIAL LOCATION:	Most upstream site								
TOTAL NO. STORMS OVER 0.1 INCH:	10		SPECIFIC CONDUCTIVITY (mS/cm):	0.025	0.155	0.102	0.106	0.023	
MAX. DAILY RAINFALL: TOTAL RAINFALL	1.0 inches	][	DISSOLVED	1.0	8.0	4.1	4.3	1.4	
(FOR PERIOD):	5.1 inches		OXYGEN (mg/L):						
4 —			Stage & Rainf	fall				0.0	
# 3								0.0 0.5 1.0 1.5	
# 3 86 2 1								1.0	
0								2.0	
6/19 6/21 6/23	6/25 6/27 6/29	7/1	7/3 7/5 7/7	7/9 7/11	7/13 7/15	7/17 7/19	9 7/21 7/2	23 7/25	
			Water Tem	np					
100									
90	200000	20	00000	, ~~	2	^^^	mv	~	
* 80	www	S	mm	m	ww	m	m	~	
	6/25 6/27 6/29	7/1	7/3 7/5 7/7	7/9 7/11	7/13 7/15	7/17 7/1	9 7/21 7/2	23 7/25	
80 70	6/25 6/27 6/29	7/1	7/3 7/5 7/7	7/9 7/11	7/13 7/15	7/17 7/1	9 7/21 7/:	23 7/25	
80 70	6/25 6/27 6/29	7/1	7/3 7/5 7/7		7/13 7/15	7/17 7/1	9 7/21 7/7	23 7/25	
80 6/19 6/21 6/23	6/25 6/27 6/29	7/1			7/13 7/15	7/17 7/1	9 7/21 7/:	23 7/25	
80 6/19 6/21 6/23	6/25 6/27 6/29	7/1			7/13 7/15	7/17 7/1	9 7/21 7/7		
80 70 6/19 6/21 6/23		7/1							
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80 70 6/19 6/21 6/23 200 150 100 50 6/19 6/21 6/23			7/3 7/5 7/7						
80 70 6/19 6/21 6/23 200 150 150 0 6/19 6/21 6/23			7/3 7/5 7/7						
80 70 6/19 6/21 6/23 200 150 100 50 6/19 6/21 6/23 8.0 7.5 6.5 6.5 6.0	3 6/25 6/27 6/29	7/1	7/3 7/5 7/7	7/9 7/11	7/13 7/1	5 7/17 7/:	19 7/21 7/	23 7/25	
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80 70 6/19 6/19 6/21 6/23 8.0 6/19 6/21 6/23 8.0 7.5 6.0 6/19 6/21 6/23	3 6/25 6/27 6/29	7/1	7/3 7/5 7/7	7/9 7/11	7/13 7/1	5 7/17 7/:	19 7/21 7/	23 7/25	
80 70 6/19 6/21 6/23 8.0 6/19 6/21 6/23 8.0 7.5 6.5 6.0 6/19 6/21 6/23	3 6/25 6/27 6/29	7/1	7/3 7/5 7/7  pH  7/3 7/5 7/7	7/9 7/11	7/13 7/1	5 7/17 7/:	19 7/21 7/	23 7/25	
80 70 6/19 6/21 6/23 8.0 6/19 6/21 6/23 8.0 7.5 6.5 6.0 6/19 6/21 6/23	3 6/25 6/27 6/29	7/1	7/3 7/5 7/7  pH  7/3 7/5 7/7	7/9 7/11	7/13 7/1	5 7/17 7/:	19 7/21 7/	23 7/25	
80 70 6/19 6/19 6/21 6/23 200 150 100 50 6/19 6/21 6/23 8.0 7.5 7.0 6.5 6.0 6/19 6/21 6/23	6/25 6/27 6/29	7/1	7/3 7/5 7/7  pH  7/3 7/5 7/7  Specific Conc	7/9 7/11 ductivity	7/13 7/1	5 7/17 7/2	19 7/21 7/	23 7/25	
80 70 6/19 6/19 6/21 6/23 8.0 7.5 6/19 6/21 6/23 8.0 7.5 6.5 6.6 6/19 6/21 6/23	6/25 6/27 6/29	7/1	7/3 7/5 7/7  pH  7/3 7/5 7/7	7/9 7/11	7/13 7/1	5 7/17 7/2	19 7/21 7/	23 7/25	
80 70 6/19 6/21 6/23 8.0 150 150 150 150 150 150 150 15	6/25 6/27 6/29	7/1	7/3 7/5 7/7  pH  7/3 7/5 7/7  Specific Conc	7/9 7/11 ductivity	7/13 7/1	5 7/17 7/2	19 7/21 7/	7/23 7/25	
80 70 6/19 6/19 6/21 6/23 8.0 6/19 6/21 6/23 8.0 6/19 6/21 6/23 8.0 6/19 6/21 6/23 8.0 6/19 6/21 6/23 8.0 6/19 6/21 6/23 8.0 6/21 6/23 8.0 6/21 6/23 8.0 6/21 6/23 8.0 6/21 6/23 8.0 6/21 6/23 8.0 6/21 6/23 8.0 6/21 6/23 8.0 6/21 6/23 8.0 6/21 6/23 8.0 6/21 6/23 8.0 6/24 8.0 6/25 8.0 6/25 8.0 6/25 8.0 6/25 8.0 6/25 8.0 6/25 8.0 6/25 8.0 6/25 8.0 6/25 8.0 6/25 8.0 6/25 8.0 6/25 8.0 6/25 8.0 6/25 8.0 6/25 8.0 6/25 8.0 6/25 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0	6/25 6/27 6/29	7/1	7/3 7/5 7/7  pH  7/3 7/5 7/7  Specific Conc	7/9 7/11 7/9 7/11 ductivity	7/13 7/1	5 7/17 7/2	19 7/21 7/	7/23 7/25	
80 70 6/19 6/19 6/21 6/23 8.0 7.0 6/19 6/21 6/23 8.0 7.0 6.5 6.0 6/19 6/21 6/23 8.0 6/24 8.0 6/24 8.0 6/25 8.0 6/25 8.0 6/25 8.0 6/25 8.0 6/25 8.0 6/25 8.0 6/25 8.0 6/25 8.0 6/25 8.0 6/25 8.0 6/25 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0	6/25 6/27 6/29	7/1	7/3 7/5 7/7  pH  7/3 7/5 7/7  Specific Conc	7/9 7/11 7/9 7/11 ductivity	7/13 7/1	5 7/17 7/2	19 7/21 7/	23 7/25	

### Continuous Water Quality Monitoring Periodic Report

Kinley Creek A (June 19, 2019 -- July 25, 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	
	7/17/2019		7/23/2019		7/23/2019		7/23/2019	
(units)	Time	Result	Time	Result	Time	Result	Time	Result
Escherichia coli (MPN/100mL)	8:46	1920	16:23	25990	15:50	1248	16:23	2592
Total Suspended Solids (mg/L)			16:23	165	15:50	54	16:23	48
Total Phosphorus (mg/L)			16:23	0.23	15:50	0.12	16:23	0.11
Total Nitrogen (mg/L)			16:23	1.57	15:50	1.62	16:23	1.57

Note: Sample 1 was collected during dry weather conditions. Samples 2-4 were collected during wet weather conditions.



# Continuous Water Quality Monitoring Periodic Report



#### Kinley Creek B (June 19, 2019 -- July 25, 2019)

SPATIAL LOCATION: TOTAL NO. STORMS	Broken Hill Rd 609 Broken Hill Rd Columbia, SC 29212 34.06635, -81.159986 Fecal Coliform Residential and commercial	CONTINUOUS WATER QUALITY PARAMETERS:  STAGE (FT):  TEMPERATURE (°F):  TURBIDITY (NTU):	MINIMUM OBSERVED  0.5  75	MAXIMUM OBSERVED  3.9  92	MEDIAN OBSERVED  0.6	MEAN OBSERVED 0.8	STANDARD DEVIATION 0.3
LOCATION:  ADDRESS:  COORDINATES:  TMDL/IMPAIRMENT:  NEIGHBORING LANDUSE:  SPATIAL LOCATION:  TOTAL NO. STORMS	Broken Hill Rd 609 Broken Hill Rd Columbia, SC 29212 34.06635, -81.159986 Fecal Coliform Residential and commercial	TEMPERATURE (°F):	75				0.3
ADDRESS:  COORDINATES:  TMDL/IMPAIRMENT:  NEIGHBORING LANDUSE:  SPATIAL LOCATION:  TOTAL NO. STORMS	609 Broken Hill Rd Columbia, SC 29212 34.06635, -81.159986 Fecal Coliform			92	81	81	
COORDINATES:  TMDL/IMPAIRMENT:  NEIGHBORING LANDUSE:  SPATIAL LOCATION:  TOTAL NO. STORMS	Columbia, SC 29212 34.06635, -81.159986 Fecal Coliform Residential and commercial			92	81	R1	
TMDL/IMPAIRMENT:  NEIGHBORING LANDUSE:  SPATIAL LOCATION:  TOTAL NO. STORMS	Fecal Coliform Residential and commercial	TURBIDITY (NTU):	1			81	3
NEIGHBORING LANDUSE: SPATIAL LOCATION: TOTAL NO. STORMS	Residential and commercial	TORBIETT (NTO).		138	4	6	8
LANDUSE:  SPATIAL LOCATION:  TOTAL NO. STORMS				100	7	Ů	Ů
TOTAL NO. STORMS		pH:	6.1	9.1	6.9	6.9	0.2
	Most downstream site	•					
OVER 0.1 INCH:	10	SPECIFIC CONDUCTIVITY (mS/cm):	0.015	0.224	0.127	0.126	0.040
MAX. DAILY RAINFALL:	1.0 inches	DISSOLVED OXYGEN	3.7	8.5	5.4	5.4	0.8
TOTAL RAINFALL (FOR PERIOD):	5.1 inches	(mg/L):	G	G.G	G	J	0.8
6		Stage & Rainfa	all				0
S o o o o o o o o o o o o o o o o o o o	6/25 6/27 6/29 7/1	7/3 7/5 7/7	7/9 7/11	7/13 7/15	7/17 7/19	7/21 7/23	Rainfall, in
90 80 70 6/19 6/21 6/23	6/25 6/27 6/29 7/1	7/3 7/5 7/7	7/9 7/11	7/13 7/15	7/17 7/19	7/21 7/2	3 7/25
150		Turbidity					\ •
2 100 50 6/19 6/21 6/23	6/25 6/27 6/29 7/1	7/3 7/5 7/7	7/9 7/11	7/13 7/1	5 7/17 7/:	19 7/21 7/	7/25
		рН					
10 9 8 8 7 6 6/19 6/21 6/23	6/25 6/27 6/29 7/1	7/3 7/5 7/7	7/9 7/11	7/13 7/15	5 7/17 7/1	19 7/21 7/	23 7/25
0.25		Specific Cond	ductivity				
¥ 0.15 0.10 0.05			مسر	4	Market Market		N
0.00 6/19 6/21 6/23	6/25 6/27 6/29 7/1	7/3 7/5 7/7	7/9 7/11	7/13 7/1	15 7/17 7/	/19 7/21 7	7/23 7/25
SCDHEC in-stream standard	rd: Daily average not less than 5 mg/L w	ith a low of 4 mg/L Dissolved	Oxygen	ALA IA		4 mg/L (SCDHEC Low	Standard)
6/19 6/21 6/23	6/25 6/27 6/29 7/1	7/3 7/5 7/7	7/9 7/11	7/13 7/1	15 7/17 7/	/19 7/21	7/23 7/25

### Continuous Water Quality Monitoring Periodic Report

Kinley Creek B (June 19, 2019 -- July 25, 2019)

## **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	Sample 1		Sample 2		Sample 3		Sample 4	
	7/17/2019		7/23/2019		7/23/2019		7/23/2019	
(units)	Time	Result	Time	Result	Time	Result	Time	Result
Escherichia coli (MPN/100mL)	8:06	736	15:38	1434	16:08	3870	16:50	5510
Total Suspended Solids (mg/L)			15:38	90.5	16:08	44	16:50	37.4
Total Phosphorus (mg/L)			15:38	0.12	16:08	0.1	16:50	0.11
Total Nitrogen (mg/L)			15:38	0.98	16:08	1.29	16:50	1.17

Note: Sample 1 was collected during dry weather conditions. Samples 2-4 were collected during wet weather conditions.