

Gills Creek Monitoring Sites

Data Gaps

- The GILA station experienced several periods of unsubmergence during this monitoring period.
- The turbidity probe at GILB became fouled on several occasions. Data collected during these periods was removed from the dataset.
- At the GILC station, the turbidity, pH, and dissolved oxygen (DO) readings were inaccurate for several periods during the deployment. Field inspection revealed a large amount of leaf litter around the sonde stilling well during these periods, as well as crawfish within the sonde guard.

SCDHEC Standards

- During this monitoring period, the average DO at all of the GIL stations was above the daily average limit of 5 mg/L. Additionally, the instantaneous DO limit of 4 mg/L was not violated at any of the GIL stations.
- The lower pH value was contravened at the GILB and GILC stations. These violations occurred during storm conditions and during extended dry periods.
- The upper pH limit of 9 was not exceeded at any of the GIL sites during this period.
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Storm Events

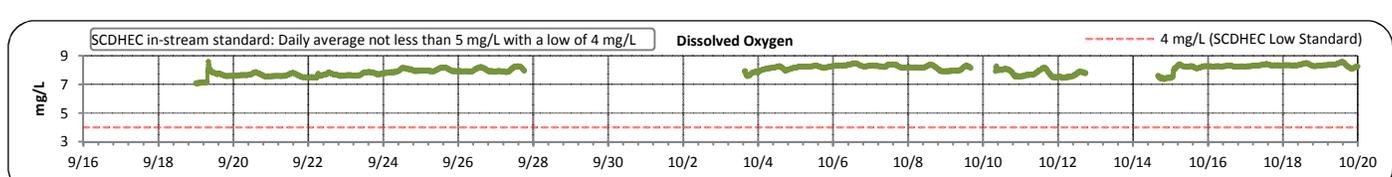
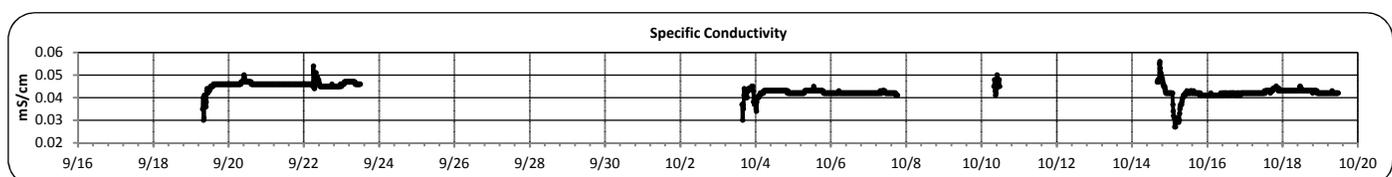
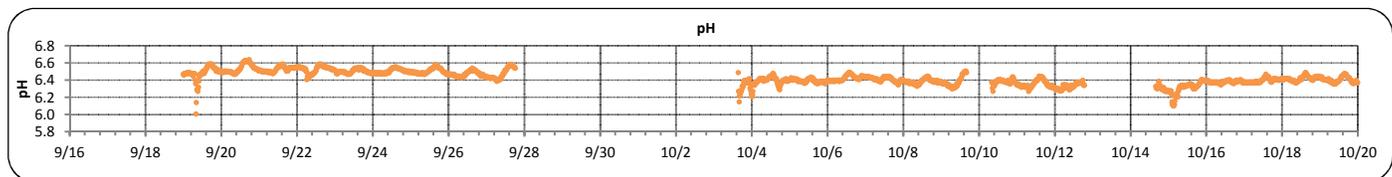
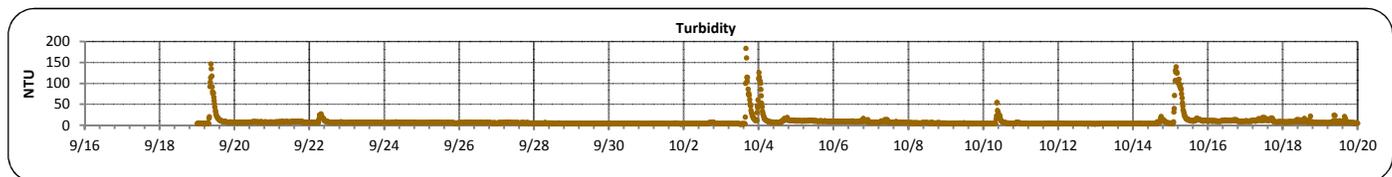
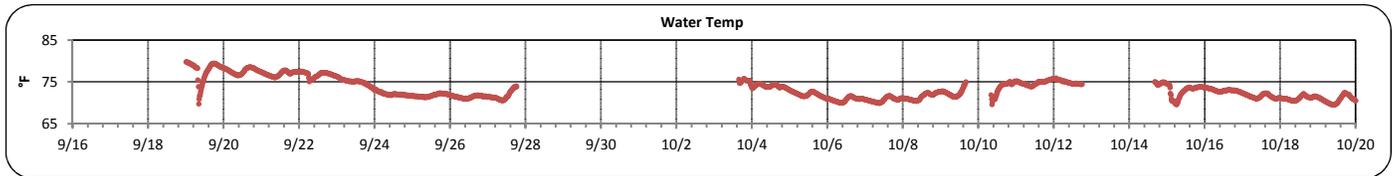
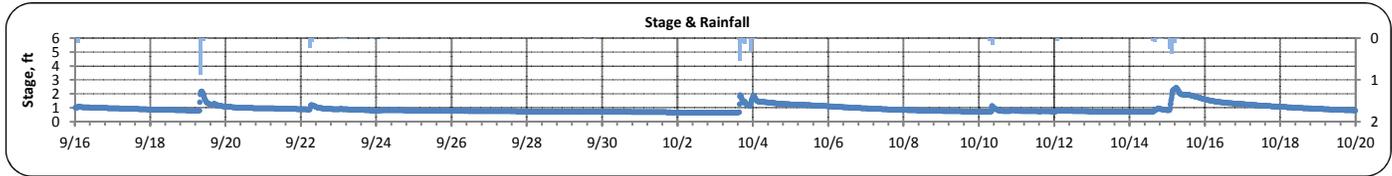
- During this period, the GILA station recorded 8 storm events, the GILB station recorded 7 storm events, and the GILC station recorded 6 storm events.

Potential Illicit Discharges

- Following a small storm event on October 10th, the GILA station recorded a slight increase in turbidity and stage, along with a slight decrease in water temperature. This event occurred between 10pm and 1am.
- At the GILB station, from 4pm through 9pm on October 14th, the specific conductivity and pH increased. This event occurred during a rain event, and may potentially have been due to sanitary sewer influences in the drainage area.

Gills Creek A (Sept 16, 2014 -- Oct 19, 2014)

PARAMETER	DESCRIPTION	CONTINUOUS WATER QUALITY PARAMETERS:	SUMMARY STATISTICS				
			MINIMUM OBSERVED	MAXIMUM OBSERVED	MEDIAN OBSERVED	MEAN OBSERVED	STANDARD DEVIATION
STREAM NAME:	Gills Creek	STAGE (FT):	0.7	2.4	0.8	0.9	0.3
LOCATION:	Forest Drive Bridge	TEMPERATURE (°F):	69	80	73	73	2
ADDRESS:	4840 Forest Drive, Columbia, SC 29206	TURBIDITY (NTU):	3	183	6	9	14
COORDINATES:	34.019826, -80.963566	pH:	6.0	6.6	6.4	6.4	0.1
TMDL/IMPAIRMENT:	Fecal & Dissolved Oxygen	SPECIFIC CONDUCTIVITY (mS/cm):	0.027	0.056	0.043	0.043	0.003
NEIGHBORING LANDUSE:	Residential and commercial	DISSOLVED OXYGEN (mg/L):	7.1	8.6	8.1	8.0	0.3
APPROX. DRAINAGE AREA:	48 square miles						
SPATIAL LOCATION:	Most upstream site						
TOTAL NO. STORMS OVER 0.1 INCH:	8						
MAX. DAILY RAINFALL:	1.1 inches						
TOTAL RAINFALL (FOR PERIOD):	4.0 inches						



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

**Continuous Water Quality
Monitoring Periodic Report**

Gills Creek A (Sept 16, 2014 -- Oct 19, 2014)

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.

Sampled Data:

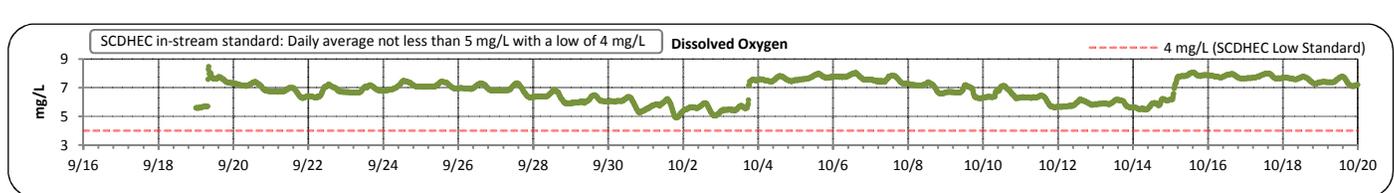
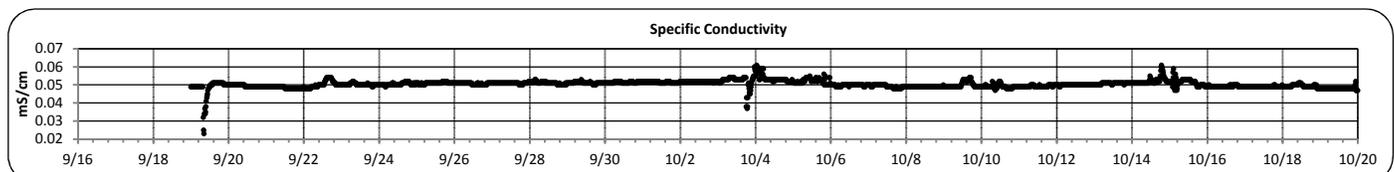
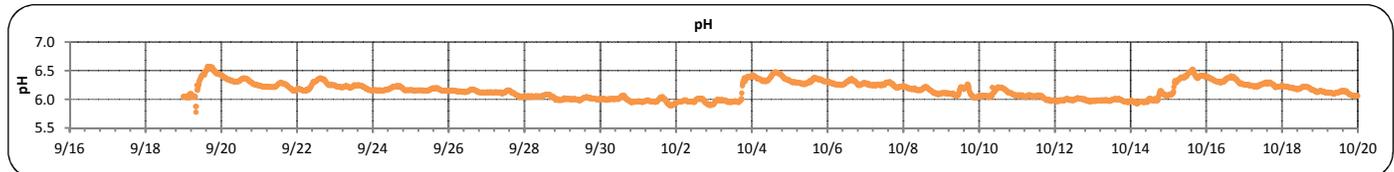
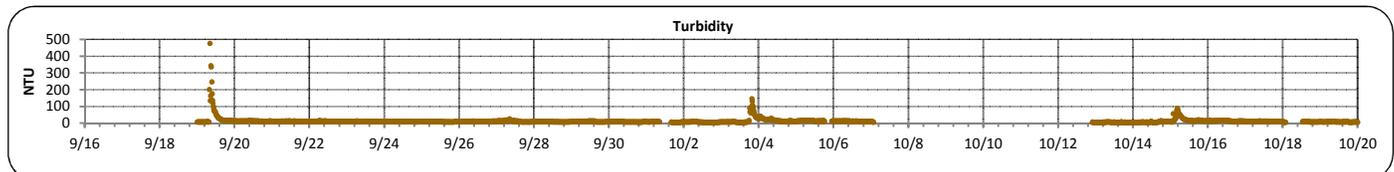
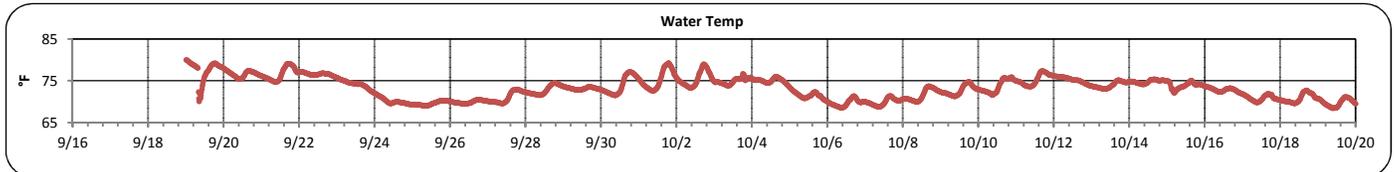
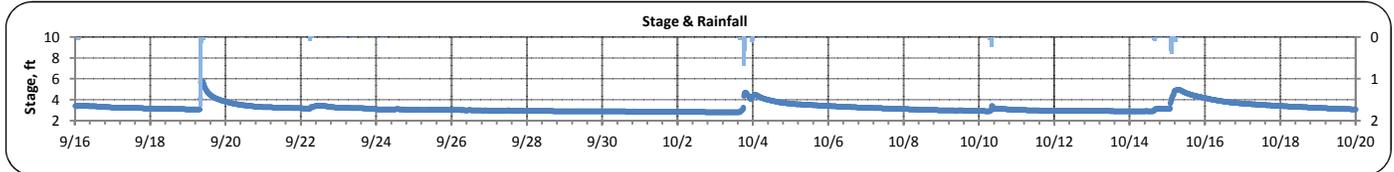
Analyte (units)	Sample 1		Sample 2		Sample 3		Sample 4	
	10/7/2014							
	Time	Results	Time	Results	Time	Results	Time	Results
<i>Escherichia coli</i> (MPN/100mL)	11:03	86						
Total Suspended Solids (mg/L)								
Total Phosphorus (mg/L)								
Total Nitrogen (mg/L)								

Notes: Dry weather grab samples were collected on 10/7/2014 to aide in establishing an *E. coli* background level.

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

Gills Creek B (Sept 16, 2014 -- Oct 19, 2014)

PARAMETER	DESCRIPTION	CONTINUOUS WATER QUALITY PARAMETERS:	SUMMARY STATISTICS				
			MINIMUM OBSERVED	MAXIMUM OBSERVED	MEDIAN OBSERVED	MEAN OBSERVED	STANDARD DEVIATION
STREAM NAME:	Gills Creek	STAGE (FT):	2.8	5.8	3.1	3.2	0.4
LOCATION:	Devine Street bridge	TEMPERATURE (°F):	68	80	73	73	3
ADDRESS:	4716 Devine Street Columbia, SC 29209	TURBIDITY (NTU):	4	476	10	12	19
COORDINATES:	33.989656, -80.97433	pH:	5.8	6.6	6.2	6.2	0.1
TMDL/IMPAIRMENT:	Fecal & Dissolved Oxygen	SPECIFIC CONDUCTIVITY (mS/cm):	0.023	0.061	0.05	0.050	0.002
NEIGHBORING LANDUSE:	Residential and commercial	DISSOLVED OXYGEN (mg/L):	4.9	8.5	6.9	6.8	0.8
APPROX. DRAINAGE AREA:	59 square miles						
SPATIAL LOCATION:	Middle site						
TOTAL NO. STORMS OVER 0.1 INCH:	7						
MAX. DAILY RAINFALL:	1.9 inches						
TOTAL RAINFALL (FOR PERIOD):	5.0 inches						



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

**Continuous Water Quality
Monitoring Periodic Report**

Gills Creek B (Sept 16, 2014 -- Oct 19, 2014)

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.

Sampled Data:

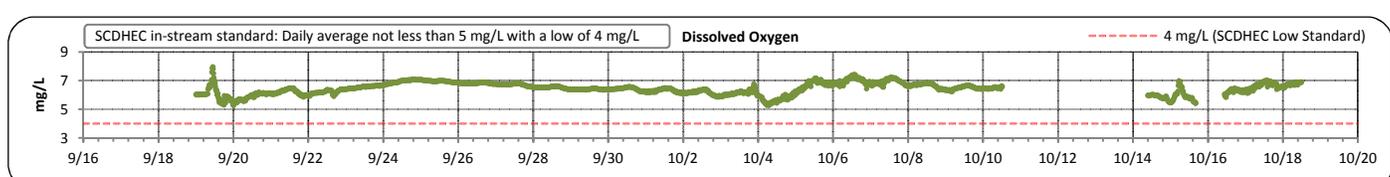
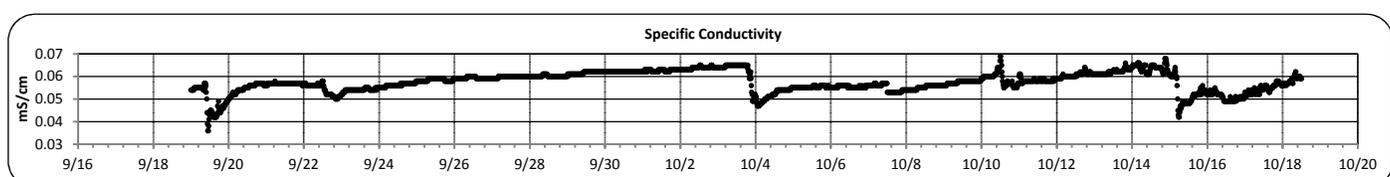
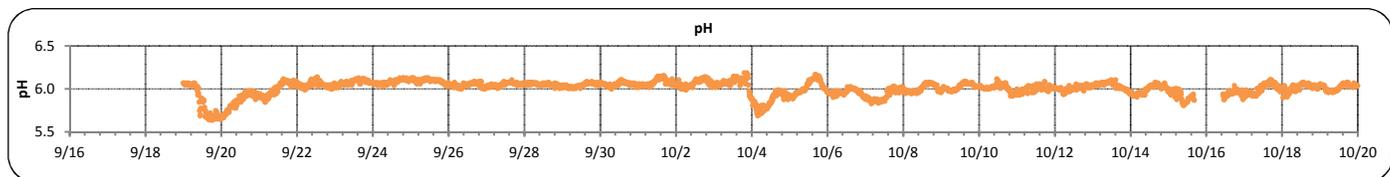
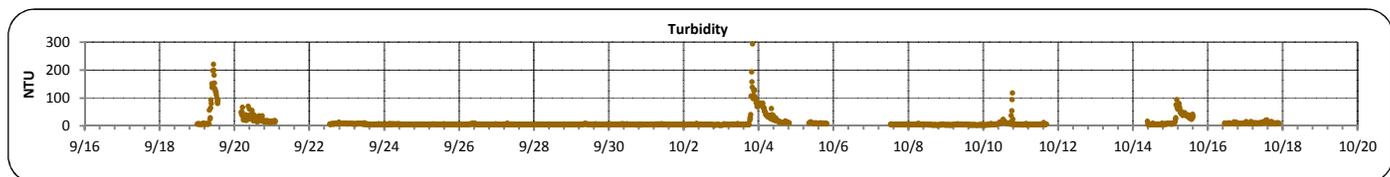
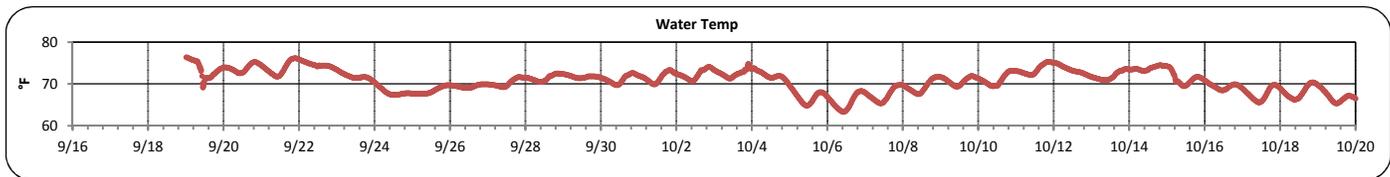
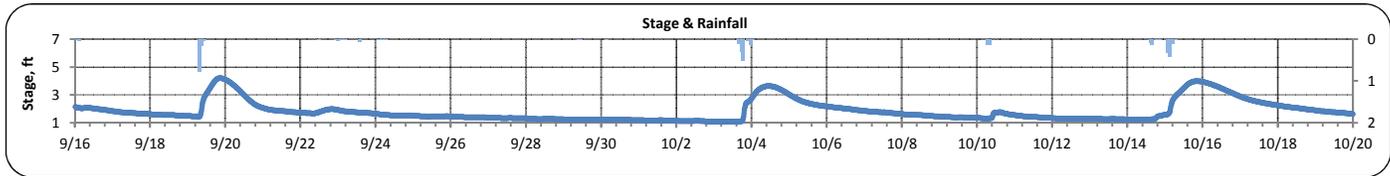
Analyte (units)	Sample 1		Sample 2		Sample 3		Sample 4	
	10/7/2014							
	Time	Results	Time	Results	Time	Results	Time	Results
<i>Escherichia coli</i> (MPN/100mL)	11:33	201						
Total Suspended Solids (mg/L)								
Total Phosphorus (mg/L)								
Total Nitrogen (mg/L)								

Notes: Dry weather grab samples were collected on 10/7/2014 to aide in establishing an E. coli background level.

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

Gills Creek C (Sept 16, 2014 -- Oct 19, 2014)

PARAMETER	DESCRIPTION	CONTINUOUS WATER QUALITY PARAMETERS:	SUMMARY STATISTICS				
			MINIMUM OBSERVED	MAXIMUM OBSERVED	MEDIAN OBSERVED	MEAN OBSERVED	STANDARD DEVIATION
STREAM NAME:	Gills Creek	STAGE (FT):	1.1	4.2	1.6	1.8	0.7
LOCATION:	Bluff Road bridge	TEMPERATURE (°F):	63	76	71	71	3
ADDRESS:	3009 Bluff Rd. Columbia, SC 29209	TURBIDITY (NTU):	3	294	5	11	20
COORDINATES:	33.948043, -80.9889	pH:	5.6	6.2	6.0	6.0	0.1
TMDL/IMPAIRMENT:	Fecal & Dissolved Oxygen	SPECIFIC CONDUCTIVITY (mS/cm):	0.036	0.069	0.057	0.057	0.004
NEIGHBORING LANDUSE:	Residential and commercial	DISSOLVED OXYGEN (mg/L):	5.3	8.0	6.5	6.5	0.4
APPROX. DRAINAGE AREA:	64 square miles						
SPATIAL LOCATION:	Most downstream site						
TOTAL NO. STORMS OVER 0.1 INCH:	6						
MAX. DAILY RAINFALL:	1.12 inches						
TOTAL RAINFALL (FOR PERIOD):	3.9 inches						



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

**Continuous Water Quality
Monitoring Periodic Report**

Gills Creek C (Sept 16, 2014 -- Oct 19, 2014)

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.

Sampled Data:

Analyte (units)	Sample 1		Sample 2		Sample 3		Sample 4	
	10/7/2014							
	Time	Results	Time	Results	Time	Results	Time	Results
<i>Escherichia coli</i> (MPN/100mL)	12:03	63						
Total Suspended Solids (mg/L)								
Total Phosphorus (mg/L)								
Total Nitrogen (mg/L)								

Notes: Dry weather grab samples were collected on 10/7/2014 to aide in establishing an E. coli background level.

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