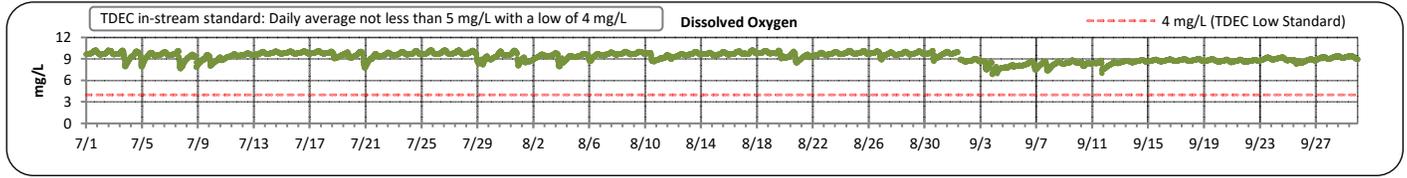
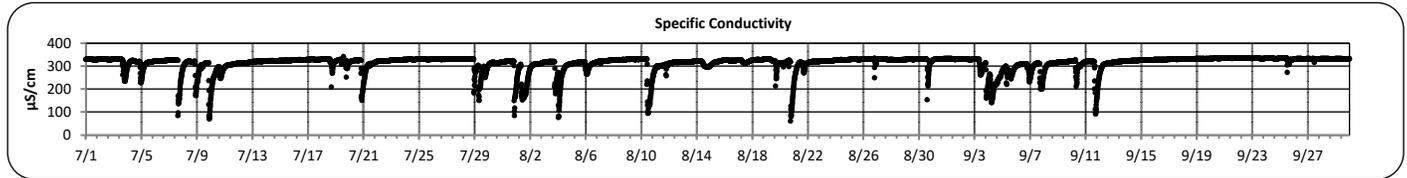
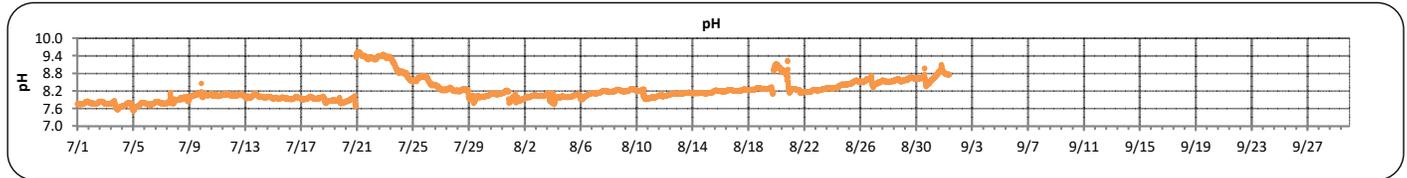
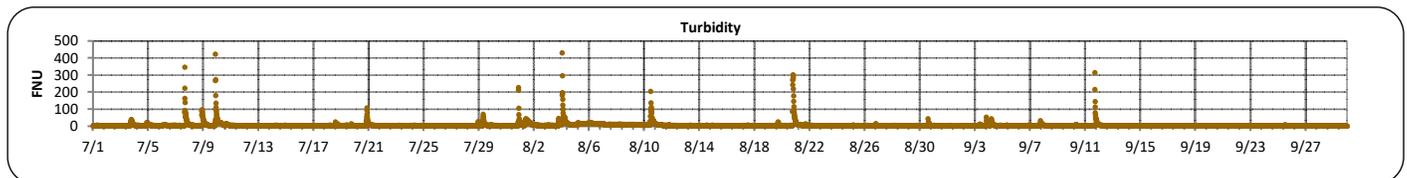
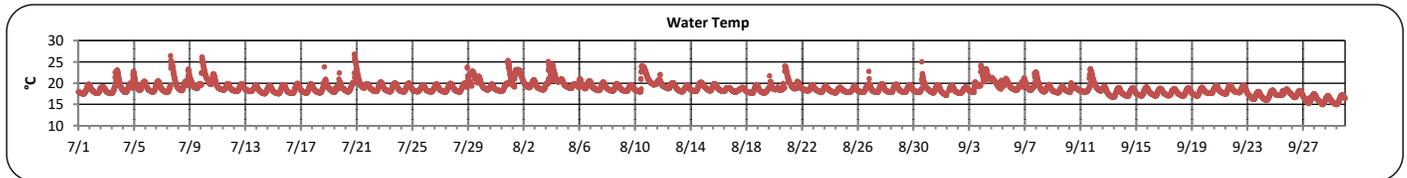
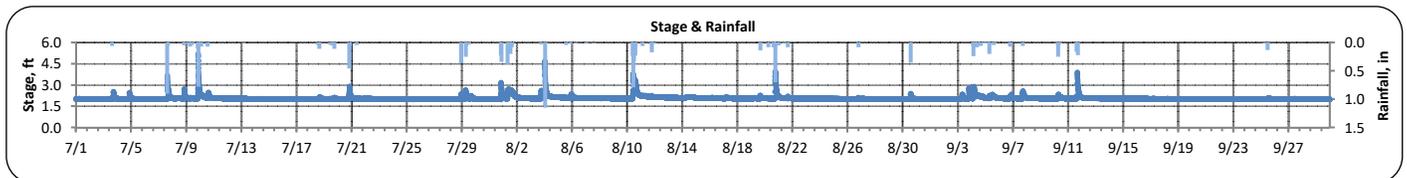




# The City of Chattanooga and Hamilton County Joint Water Quality Monitoring Quarterly Report (July 1, 2022 - September 30, 2022) Stringers Branch at Signal Mountain



PARAMETER	DESCRIPTION	CONTINUOUS WATER QUALITY PARAMETERS:	SUMMARY STATISTICS				
			MINIMUM OBSERVED	MAXIMUM OBSERVED	MEDIAN OBSERVED	MEAN OBSERVED	STANDARD DEVIATION
STREAM NAME:	Stringers Branch	STAGE (FT):	2.0	5.2	2.0	2.1	0.1
LOCATION:	Signal Mountain Rd	TEMPERATURE (°C):	15	27	19	19	1
TMDL/IMPAIRMENT:	<i>E. coli</i> , Siltation, Habitat Alteration	TURBIDITY (FNU):	1	431	3	6	17
		pH:	7.5	9.6	8.1	8.2	0.4
APPROX. DRAINAGE AREA:	5.7 square miles	SPECIFIC CONDUCTIVITY (µS/cm):	62	343	325	314	34
TOTAL NO. STORMS OVER 0.1 INCH:	22	DISSOLVED OXYGEN (mg/L):	6.9	10.3	9.5	9.3	0.6
MAX. DAILY RAINFALL:	1.9 inches						
TOTAL RAINFALL (FOR PERIOD):	12.8 inches						





**The City of Chattanooga and Hamilton County Joint Water Quality Monitoring  
Quarterly Report (July 1, 2022 - September 30, 2022)  
Stringers Branch at Signal Mountain**



**Explanation of Statistics:**

<b>MINIMUM OBSERVED</b>	The minimum of the values recorded by the datasonde in 15 minute intervals.
<b>MAXIMUM OBSERVED</b>	The maximum of the values recorded by the datasonde in 15 minute intervals.
<b>MEDIAN OBSERVED</b>	The median of all the values recorded by the datasonde in 15 minute intervals.
<b>MEAN OBSERVED</b>	The average of all the values recorded by the datasonde in 15 minute intervals.
<b>STANDARD DEVIATION</b>	The standard deviation of all the values recorded by the datasonde in 15 minute intervals.

**Sampled Data:**

Analyte (units)	Dry Sample							
	8/11/2022							
	Time	Results						
<i>Escherichia coli</i> (MPN/100mL)	11:11	160						
Total Suspended Solids (mg/L)	11:11	3						
Total Phosphorus (mg/L)	11:11	0.100						
Total Nitrogen (mg/L)	11:11	3.35						

**Notes:**

Data Gaps

pH data were removed beginning 9/1 through the end of the quarter due to a sensor fault.

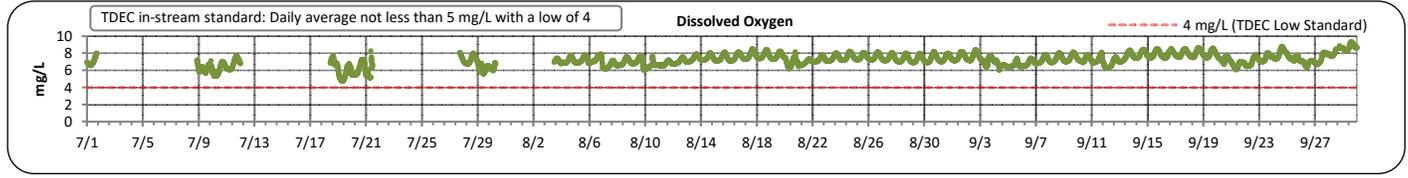
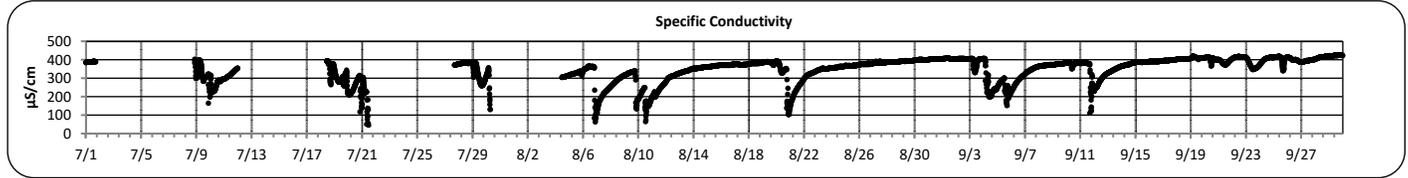
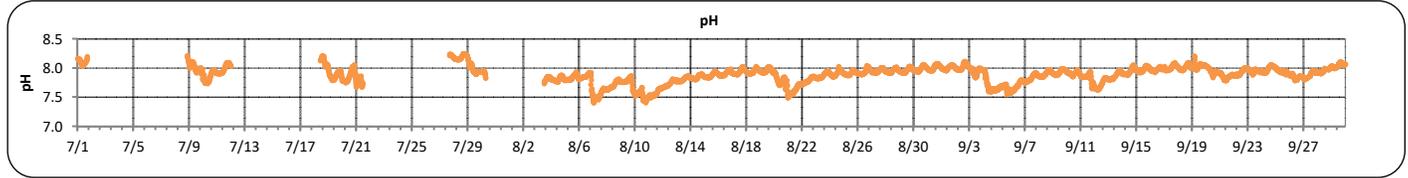
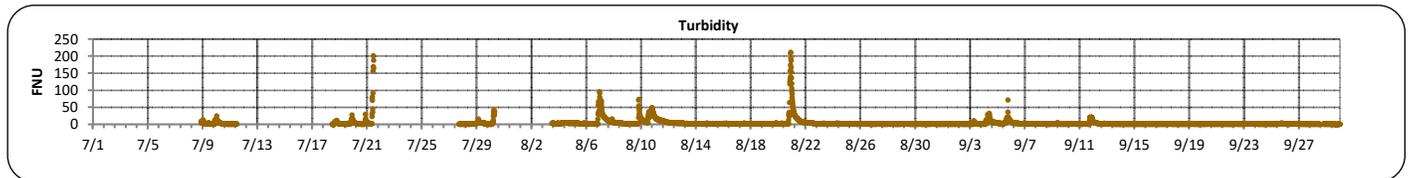
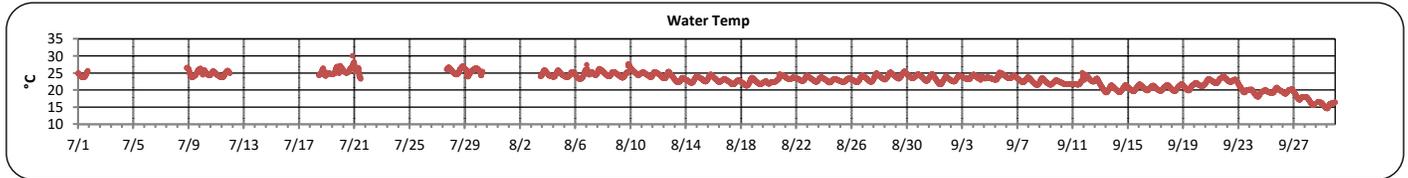
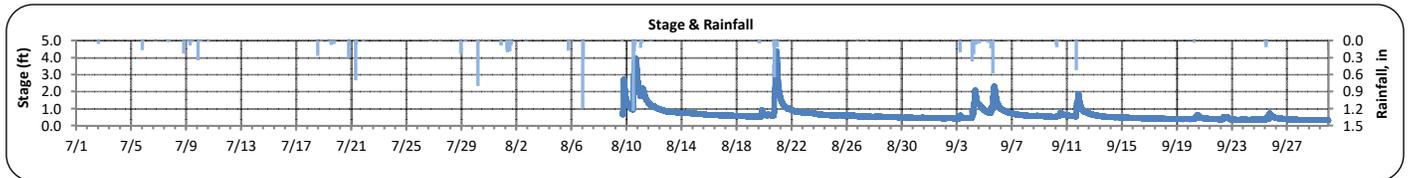


# The City of Chattanooga and Hamilton County Joint Water Quality Monitoring Quarterly Report (July 1, 2022 - September 30, 2022)

## Friar Branch at Polymer Drive



PARAMETER	DESCRIPTION	CONTINUOUS WATER QUALITY PARAMETERS:	SUMMARY STATISTICS				
			MINIMUM OBSERVED	MAXIMUM OBSERVED	MEDIAN OBSERVED	MEAN OBSERVED	STANDARD DEVIATION
STREAM NAME:	Friar Branch	STAGE (FT):	0.3	4.4	0.6	0.7	0.4
LOCATION:	Polymer Drive Bridge	TEMPERATURE (°C):	15	30	23	23	2
TMDL/IMPAIRMENT:	<i>E. coli</i> , Siltation, Habitat Alteration	TURBIDITY (FNU):	1	211	2	4	12
		pH:	7.4	8.3	7.9	7.9	0.1
APPROX. DRAINAGE AREA:	20.7 square miles	SPECIFIC CONDUCTIVITY (µS/cm):	45	431	374	350	64
TOTAL NO. STORMS OVER 0.1 INCH:	23	DISSOLVED OXYGEN (mg/L):	4.8	9.4	7.3	7.3	0.7
MAX. DAILY RAINFALL:	1.8 inches						
TOTAL RAINFALL (FOR PERIOD):	13.2 inches						





**The City of Chattanooga and Hamilton County Joint Water Quality Monitoring  
Quarterly Report (July 1, 2022 - September 30, 2022)  
Friar Branch at Polymer Drive**



**Explanation of Statistics:**

<b>MINIMUM OBSERVED</b>	The minimum of the values recorded by the datasonde in 15 minute intervals.
<b>MAXIMUM OBSERVED</b>	The maximum of the values recorded by the datasonde in 15 minute intervals.
<b>MEDIAN OBSERVED</b>	The median of all the values recorded by the datasonde in 15 minute intervals.
<b>MEAN OBSERVED</b>	The average of all the values recorded by the datasonde in 15 minute intervals.
<b>STANDARD DEVIATION</b>	The standard deviation of all the values recorded by the datasonde in 15 minute intervals.

**Sampled Data:**

Analyte (units)	Dry Sample		Storm Sample					
	8/9/2022		9/6/2022					
	Time	Results	Time	Results	Time	Results	Time	Results
<i>Escherichia coli</i> (MPN/100mL)	10:10	410	11:10	340				
Total Suspended Solids (mg/L)	10:10	6.4	11:10	5.2				
Total Phosphorus (mg/L)	10:10	<0.5	11:10	<0.5				
Total Nitrogen (mg/L)	10:10	0.613*	11:10	0.53*				

\*TKN was below the detection limit of 1 mg/L.

**Notes:**

The sonde well was lowered on 7/18 due to consistently low water levels at this location.  
The pressure transducer was installed on 8/9. Stage data are available beginning on this date.

Data Gaps

Data gaps are present between 7/1-7/8 and 7/12-7/18 due to sensors being unsubmerged.  
Data gaps are present between 7/21-7/27 and 7/30-8/2 due to sensors being buried under sediment.  
Data are unavailable between 8/2-8/4 due to equipment issues, troubleshooting, and calibration.



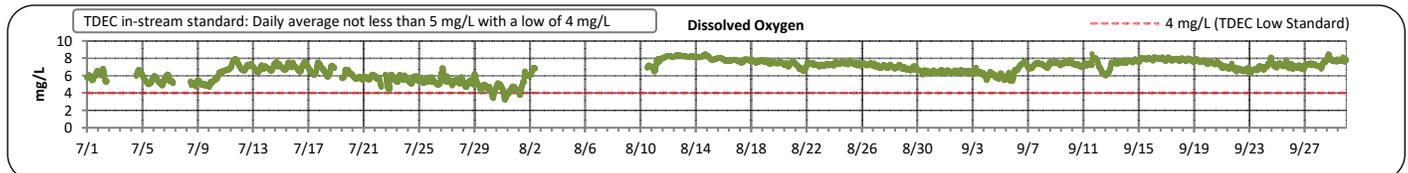
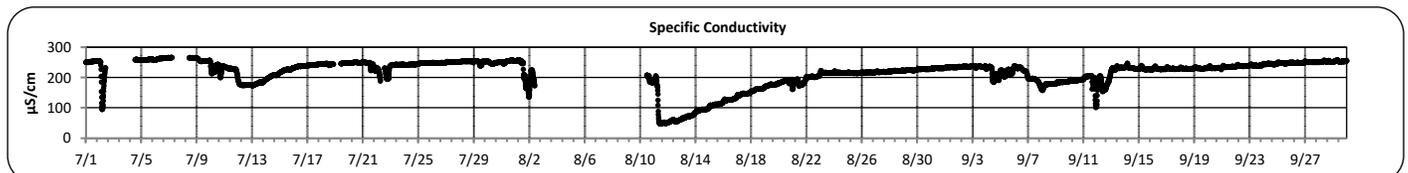
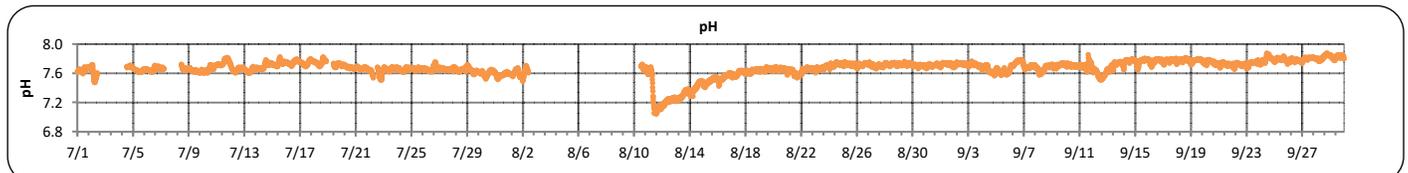
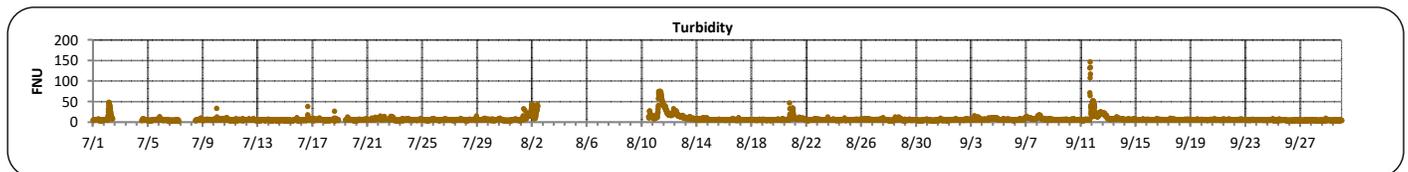
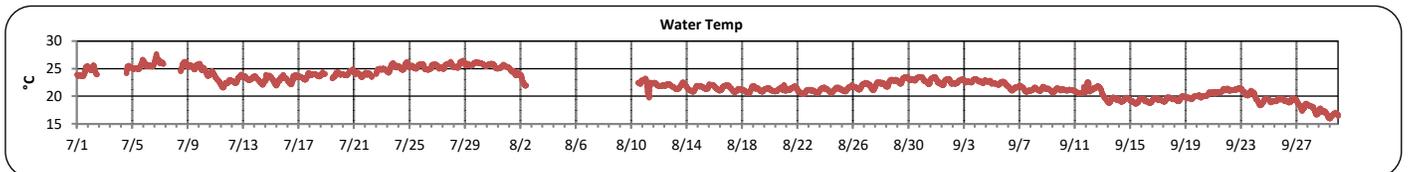
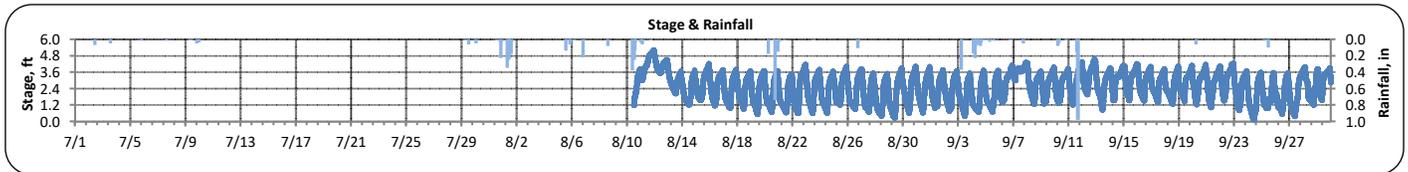
# The City of Chattanooga and Hamilton County Joint Water Quality Monitoring Quarterly Report (July 1, 2022 - September 30, 2022)



Hamilton County  
Water Quality Program

## N. Chick Creek at Greenway Farms

PARAMETER	DESCRIPTION	CONTINUOUS WATER QUALITY PARAMETERS:	SUMMARY STATISTICS				
			MINIMUM OBSERVED	MAXIMUM OBSERVED	MEDIAN OBSERVED	MEAN OBSERVED	STANDARD DEVIATION
STREAM NAME:	N. Chick	STAGE (FT):	0.2	5.2	2.7	2.5	1.1
LOCATION:	Greenway Farms Boat Launch	TEMPERATURE (°C):	16	28	22	22	2
TMDL/IMPAIRMENT:	pH, Siltation, Habitat Alteration	TURBIDITY (FNU):	2	147	6	7	7
		pH:	7.1	7.9	7.7	7.7	0.1
APPROX. DRAINAGE AREA:	117.4 square miles	SPECIFIC CONDUCTIVITY (µS/cm):	48	274	230	216	45
TOTAL NO. STORMS OVER 0.1 INCH:	30	DISSOLVED OXYGEN (mg/L):	3.3	8.6	7.1	6.8	1.0
MAX. DAILY RAINFALL:	2.1 inches						
TOTAL RAINFALL (FOR PERIOD):	12.0 inches						





**The City of Chattanooga and Hamilton County Joint Water Quality Monitoring  
Quarterly Report (July 1, 2022 - September 30, 2022)  
N. Chick Creek at Greenway Farms**



**Explanation of Statistics:**

<b>MINIMUM OBSERVED</b>	The minimum of the values recorded by the datasonde in 15 minute intervals.
<b>MAXIMUM OBSERVED</b>	The maximum of the values recorded by the datasonde in 15 minute intervals.
<b>MEDIAN OBSERVED</b>	The median of all the values recorded by the datasonde in 15 minute intervals.
<b>MEAN OBSERVED</b>	The average of all the values recorded by the datasonde in 15 minute intervals.
<b>STANDARD DEVIATION</b>	The standard deviation of all the values recorded by the datasonde in 15 minute intervals.

**Sampled Data:**

Analyte (units)	Dry Sample		Storm Sample					
	8/9/2022		9/6/2022					
	Time	Results	Time	Results	Time	Results	Time	Results
<i>Escherichia coli</i> (MPN/100mL)	10:50	170	11:20	460				
Total Suspended Solids (mg/L)	10:50	9.6	11:20	6				
Total Phosphorus (mg/L)	10:50	<0.5	11:20	<0.5				
Total Nitrogen (mg/L)	10:50	0.285*	11:20	0.593*				

\*TKN was below the detection limit of 1 mg/L.

**Notes:**

The pressure transducer was installed on 8/10. Stage data are available beginning on this date.

Data Gaps

Data gaps are present between 7/2-7/4, 7/7-7/8, 7/18-7/19, and on 7/22 due to sensors being unsubmerged. Data are unavailable between 8/2-8/10 due to equipment issues, troubleshooting, and calibration.

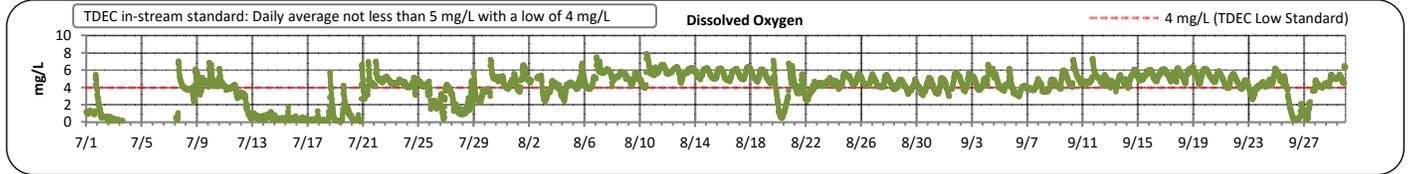
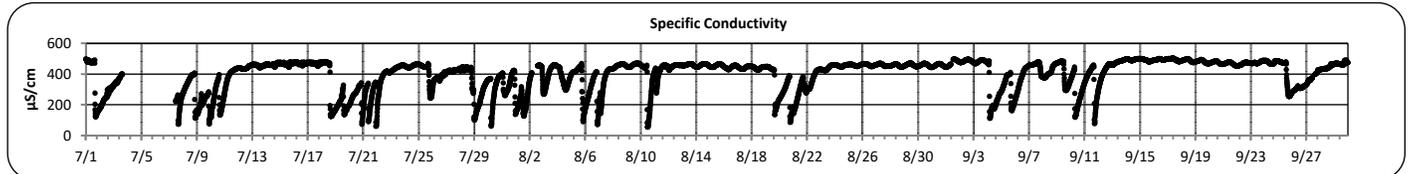
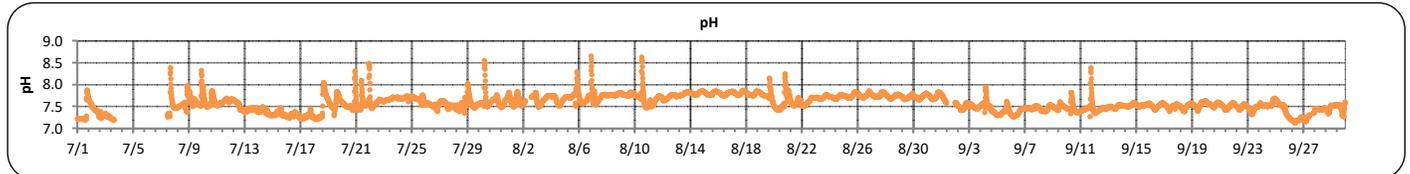
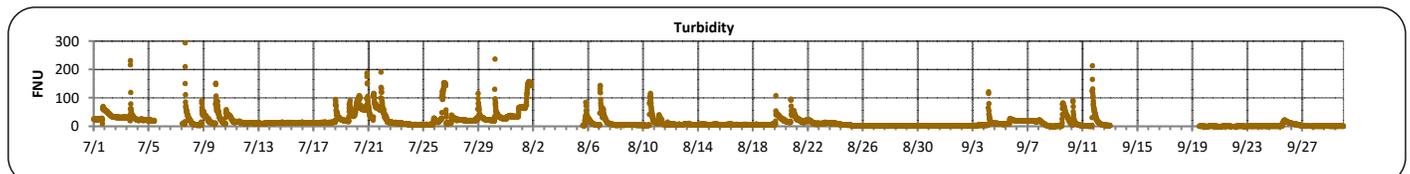
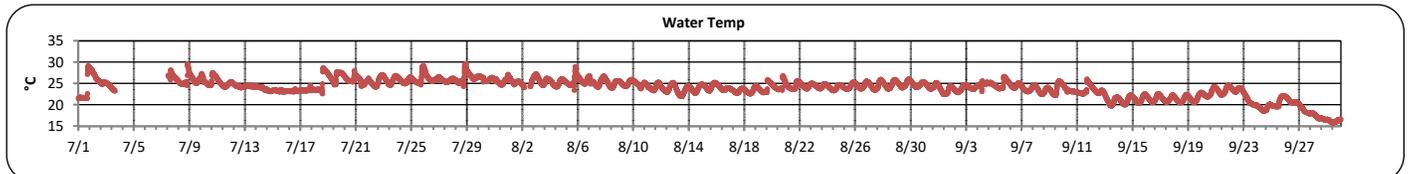
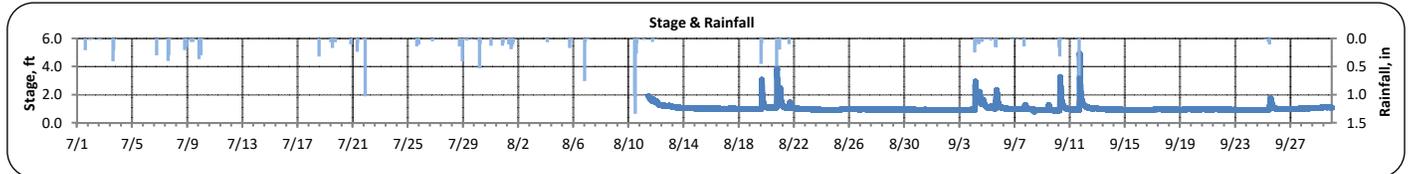


# The City of Chattanooga and Hamilton County Joint Water Quality Monitoring Quarterly Report (July 1, 2022 - September 30, 2022)

## Dobbs Branch at Park City Park



PARAMETER	DESCRIPTION	CONTINUOUS WATER QUALITY PARAMETERS:	SUMMARY STATISTICS				
			MINIMUM OBSERVED	MAXIMUM OBSERVED	MEDIAN OBSERVED	MEAN OBSERVED	STANDARD DEVIATION
STREAM NAME:	Dobbs Branch	STAGE (FT):	0.8	5.0	1.0	1.0	0.2
LOCATION:	Park City Park	TEMPERATURE (°C):	16	30	24	24	2
TMDL/IMPAIRMENT:	<i>E. coli</i> , Siltation, Habitat Alteration	TURBIDITY (FNU):	1	294	9	16	23
		pH:	7.1	8.7	7.6	7.6	0.2
APPROX. DRAINAGE AREA:	6.2 square miles	SPECIFIC CONDUCTIVITY (µS/cm):	56	505	449	401	100
TOTAL NO. STORMS OVER 0.1 INCH:	32	DISSOLVED OXYGEN (mg/L):	0.2	7.9	4.5	4.1	1.7
MAX. DAILY RAINFALL:	3.0 inches						
TOTAL RAINFALL (FOR PERIOD):	16.8 inches						





**The City of Chattanooga and Hamilton County Joint Water Quality Monitoring  
Quarterly Report (July 1, 2022 - September 30, 2022)  
Dobbs Branch at Park City Park**



**Explanation of Statistics:**

<b>MINIMUM OBSERVED</b>	The minimum of the values recorded by the datasonde in 15 minute intervals.
<b>MAXIMUM OBSERVED</b>	The maximum of the values recorded by the datasonde in 15 minute intervals.
<b>MEDIAN OBSERVED</b>	The median of all the values recorded by the datasonde in 15 minute intervals.
<b>MEAN OBSERVED</b>	The average of all the values recorded by the datasonde in 15 minute intervals.
<b>STANDARD DEVIATION</b>	The standard deviation of all the values recorded by the datasonde in 15 minute intervals.

**Sampled Data:**

Analyte (units)	Dry Sample		Storm Sample					
	8/9/2022		9/6/2022					
	Time	Results	Time	Results	Time	Results	Time	Results
<i>Escherichia coli</i> (MPN/100mL)	09:35	1,600	10:40	130				
Total Suspended Solids (mg/L)	09:35	5.2	10:40	7.6				
Total Phosphorus (mg/L)	09:35	<0.5	10:40	<0.5				
Total Nitrogen (mg/L)	09:35	1.02*	10:40	0.742*				

\*TKN was below the detection limit of 1 mg/L.

**Notes:**

The pressure transducer was installed on 8/11. Stage data are available beginning on this date.

Data Gaps

Data gaps are present between 7/3-7/7 due to multiple sensor failures.

A data gap is present on 8/2 due to a signal output adapter error.

Turbidity data were removed between 8/2-8/5 and 9/12-9/15 due to apparent sensor fouling.

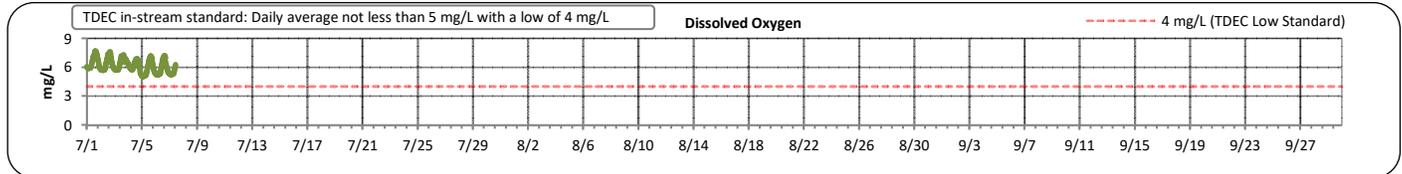
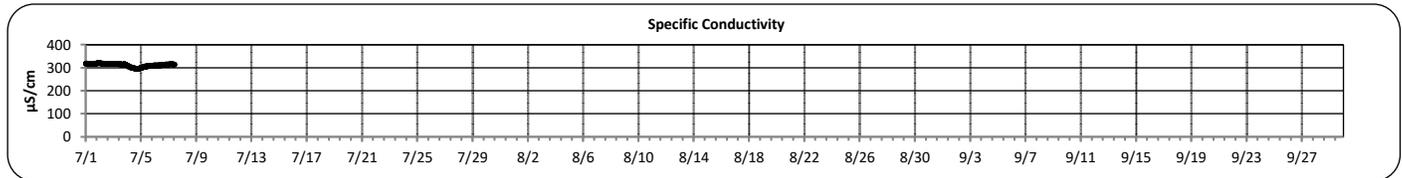
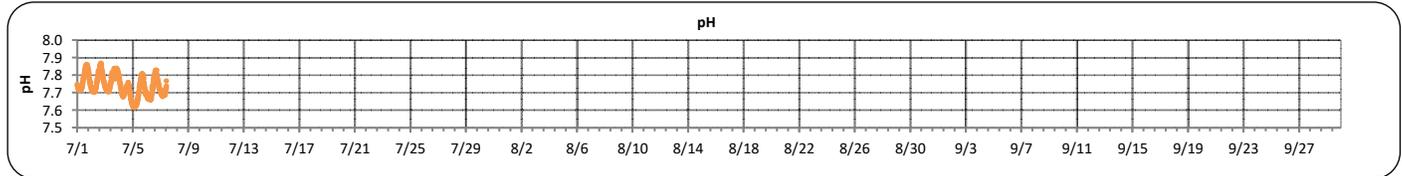
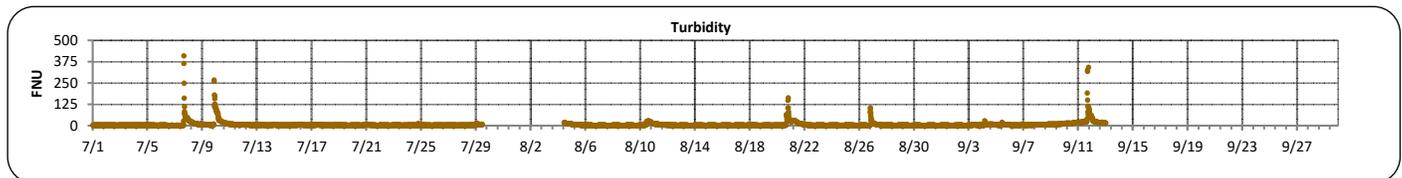
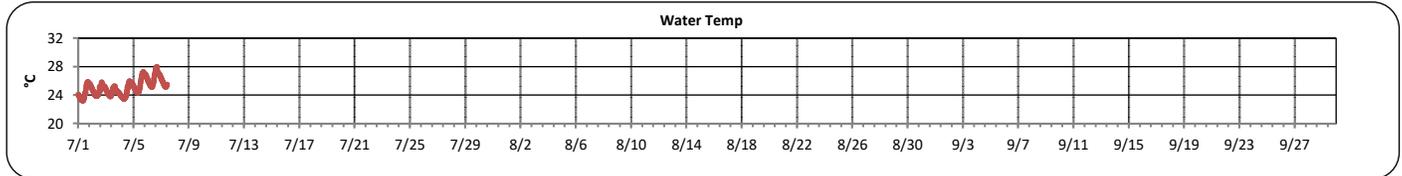
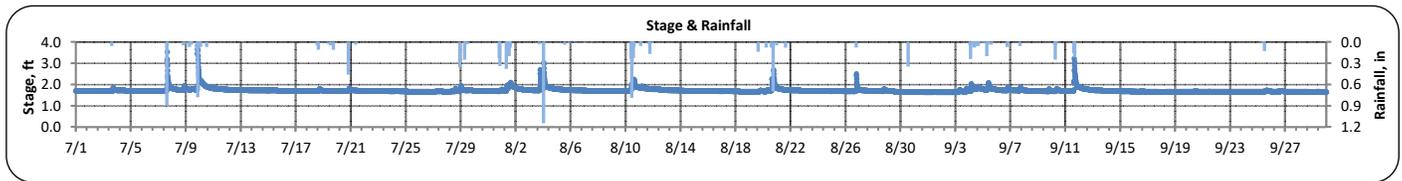
A short data gap is present on 9/27 due to the sonde being removed for calibration.



The City of Chattanooga and Hamilton County Joint Water Quality Monitoring  
 Quarterly Report (July 1, 2022 - September 30, 2022)  
 Mountain Creek at Elementary School



PARAMETER	DESCRIPTION	CONTINUOUS WATER QUALITY PARAMETERS:	SUMMARY STATISTICS				
			MINIMUM OBSERVED	MAXIMUM OBSERVED	MEDIAN OBSERVED	MEAN OBSERVED	STANDARD DEVIATION
STREAM NAME:	Mountain Creek	STAGE (FT):	1.6	3.8	1.7	1.7	0.1
LOCATION:	Red Bank Elementary School	TEMPERATURE (°C):	23	28	25	25	1
TMDL/IMPAIRMENT:	<i>E. coli</i> , Siltation, Habitat Alteration	TURBIDITY (FNU):	1	411	3	7	16
		pH:	7.6	7.9	7.7	7.7	0.1
APPROX. DRAINAGE AREA:	5.5 square miles	SPECIFIC CONDUCTIVITY (µS/cm):	296	321	315	312	7
TOTAL NO. STORMS OVER 0.1 INCH:	22						
MAX. DAILY RAINFALL:	1.9 inches	DISSOLVED OXYGEN (mg/L):	5.1	7.7	6.0	6.2	0.7
TOTAL RAINFALL (FOR PERIOD):	12.8 inches						





**The City of Chattanooga and Hamilton County Joint Water Quality Monitoring  
Quarterly Report (July 1, 2022 - September 30, 2022)  
Mountain Creek at Elementary School**



**Explanation of Statistics:**

<b>MINIMUM OBSERVED</b>	The minimum of the values recorded by the datasonde in 15 minute intervals.
<b>MAXIMUM OBSERVED</b>	The maximum of the values recorded by the datasonde in 15 minute intervals.
<b>MEDIAN OBSERVED</b>	The median of all the values recorded by the datasonde in 15 minute intervals.
<b>MEAN OBSERVED</b>	The average of all the values recorded by the datasonde in 15 minute intervals.
<b>STANDARD DEVIATION</b>	The standard deviation of all the values recorded by the datasonde in 15 minute intervals.

**Sampled Data:**

Analyte (units)	Dry Sample		Storm Sample					
	8/9/2022		9/6/2022					
	Time	Results	Time	Results	Time	Results	Time	Results
<i>Escherichia coli</i> (MPN/100mL)	9:35	370	10:15	120				
Total Suspended Solids (mg/L)	9:35	4.0	10:15	2.4				
Total Phosphorus (mg/L)	9:35	<0.5	10:15	<0.5				
Total Nitrogen (mg/L)	9:35	0.333*	10:15	0.615*				

\*TKN was below the detection limit of 1 mg/L.

**Notes:**

Data Gaps

Data beginning 7/7 through the end of the quarter are unavailable due to the specific conductivity/temperature and dissolved oxygen sensor being shifted to the Dobbs Branch at Park City Park location to replace the faulty sensors at that location. pH data were also removed due to the measurements reliance on temperature correction.

Turbidity data were removed between 9/13-9/17 due to sensor fouling.

Sonde data were unavailable beginning 9/17 through the end of the quarter due to battery failure.