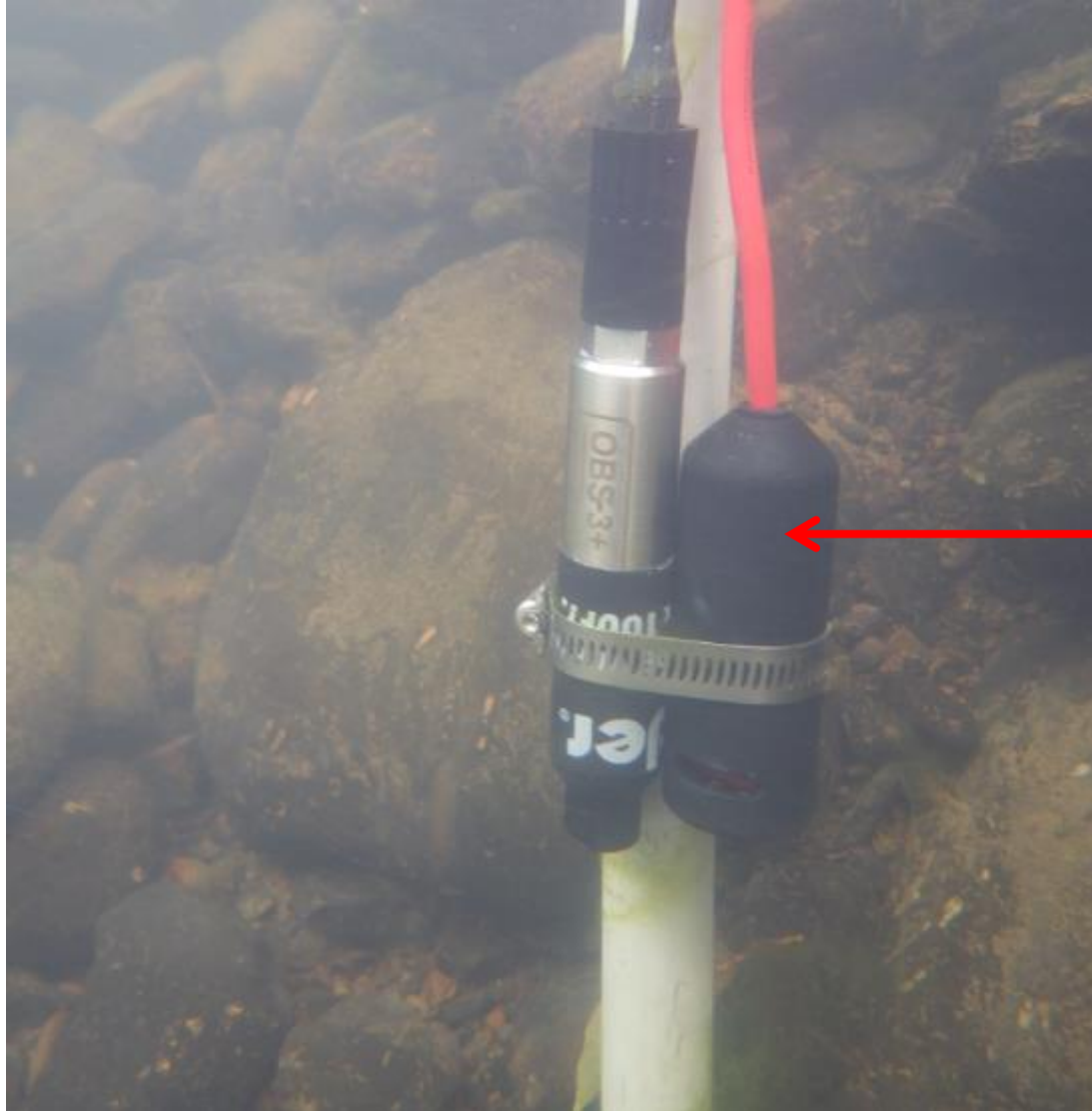


# DRWI User Group Monthly Meeting

## Focus Topic: Pressure transducer / Depth



**HYDROS21** –  
Conductivity/  
Temperature/  
Depth Sensor  
By METER  
group

# HYDROS 21 CTD

## Pressure transducer / Depth Description

What is a pressure transducer ?



Pressure  
Transducer  
location on  
CTD sensor

# HYDROS 21 CTD

## Pressure transducer / Depth Description

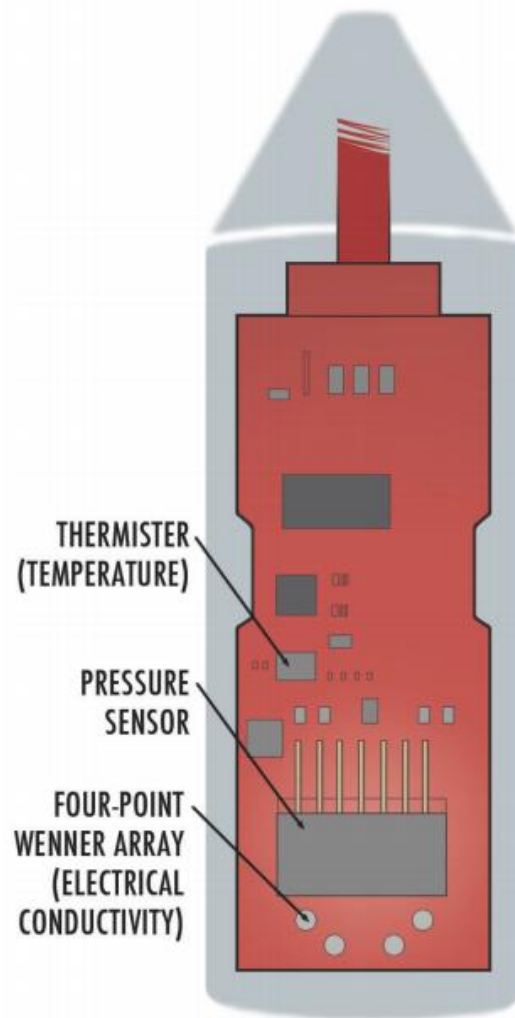
What is a pressure transducer ?



Pressure  
Transducer  
location on  
CTD sensor

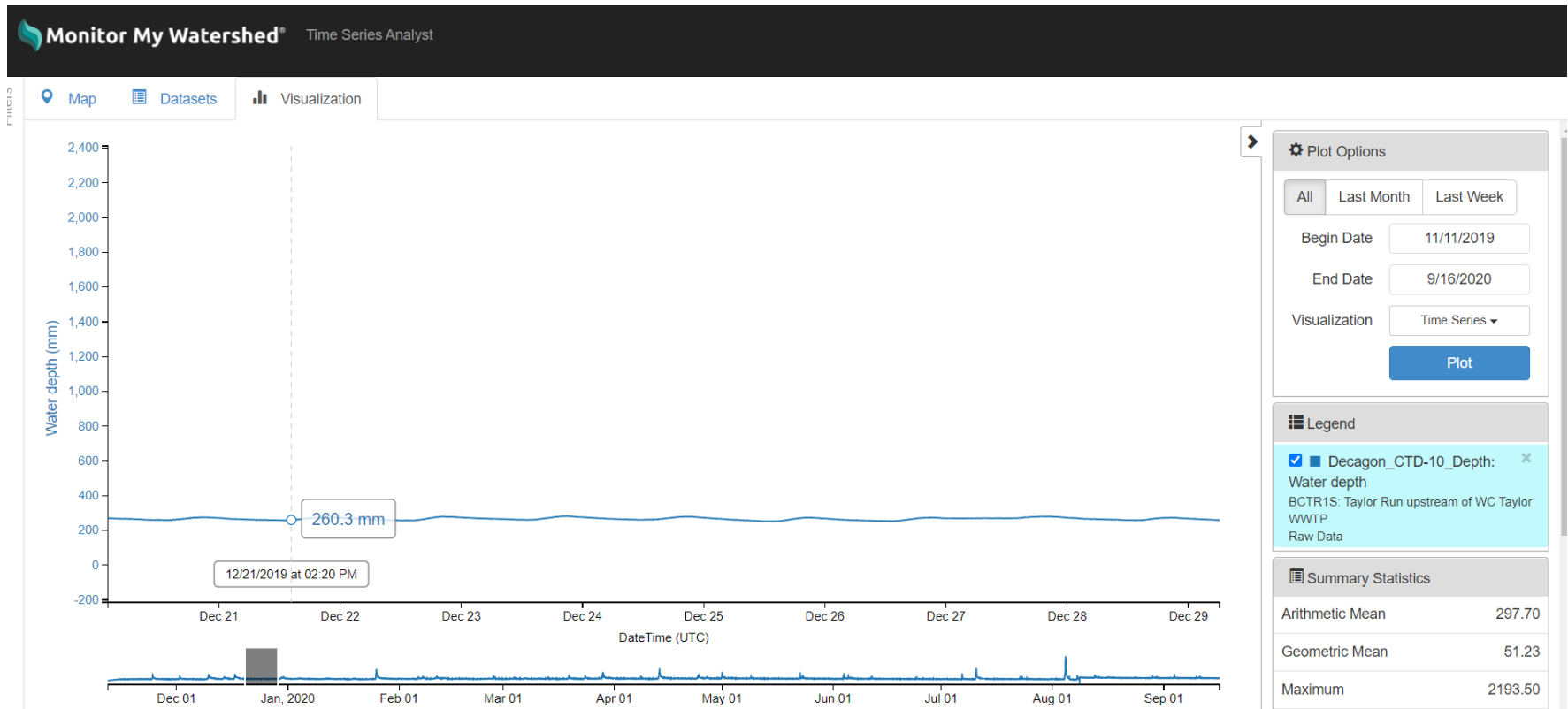
# HYDROS 21 CTD

## Pressure transducer / Depth Description



# Normal depth patterns

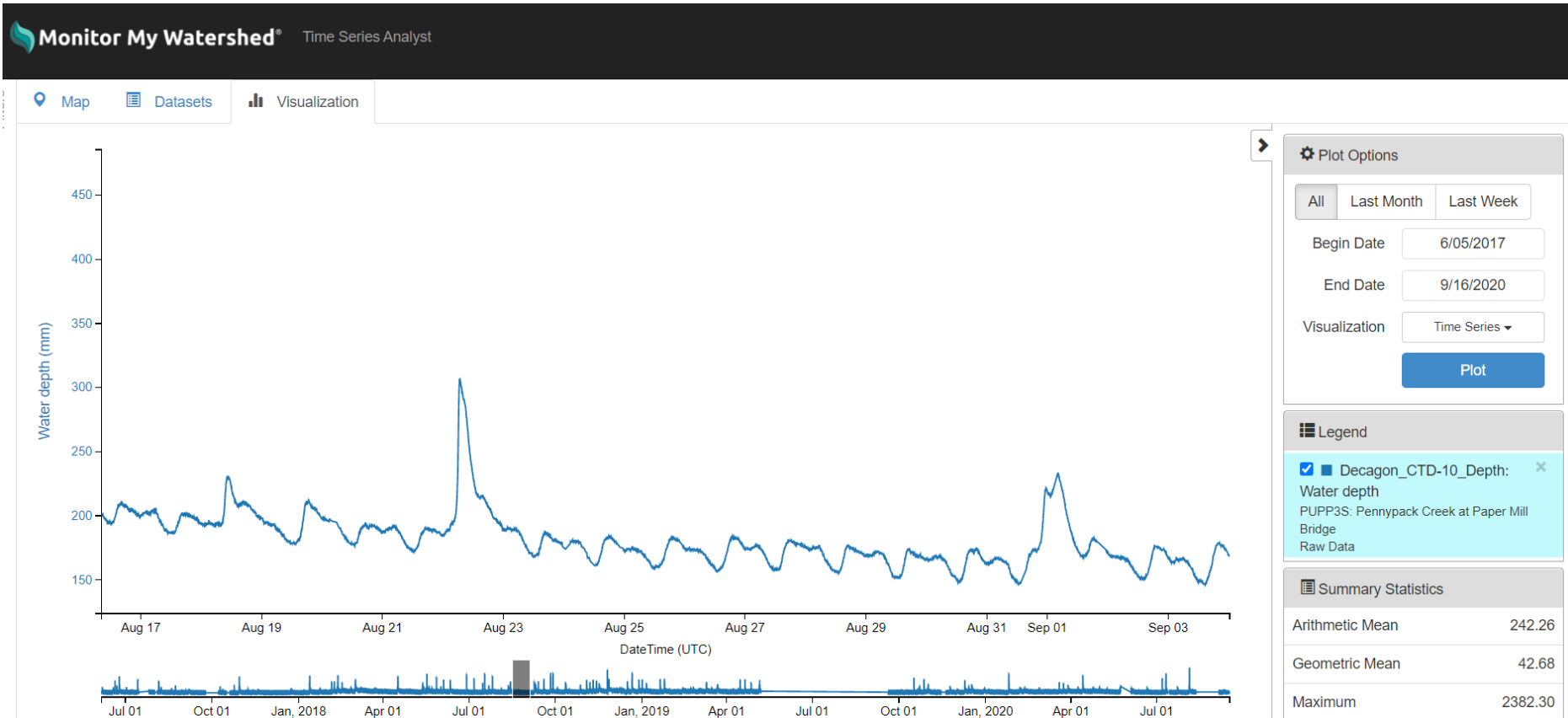
During baseflow conditions



BCTR1S: Taylor Run - upstream of West Chester Taylor Waste Water Treatment Plant

# Normal depth patterns

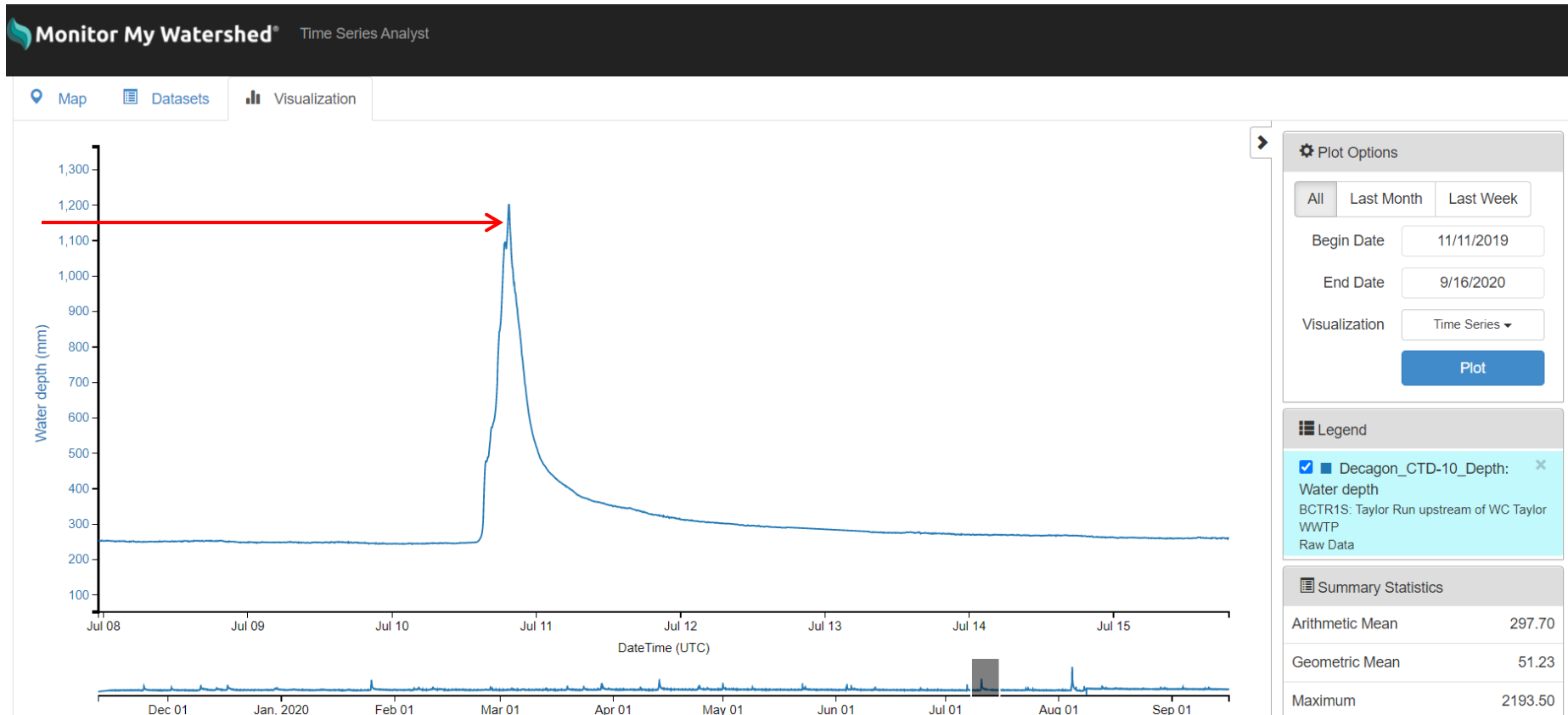
During baseflow conditions



PUPP3S: Pennypack Creek at Paper Mill Bridge

# Normal depth patterns

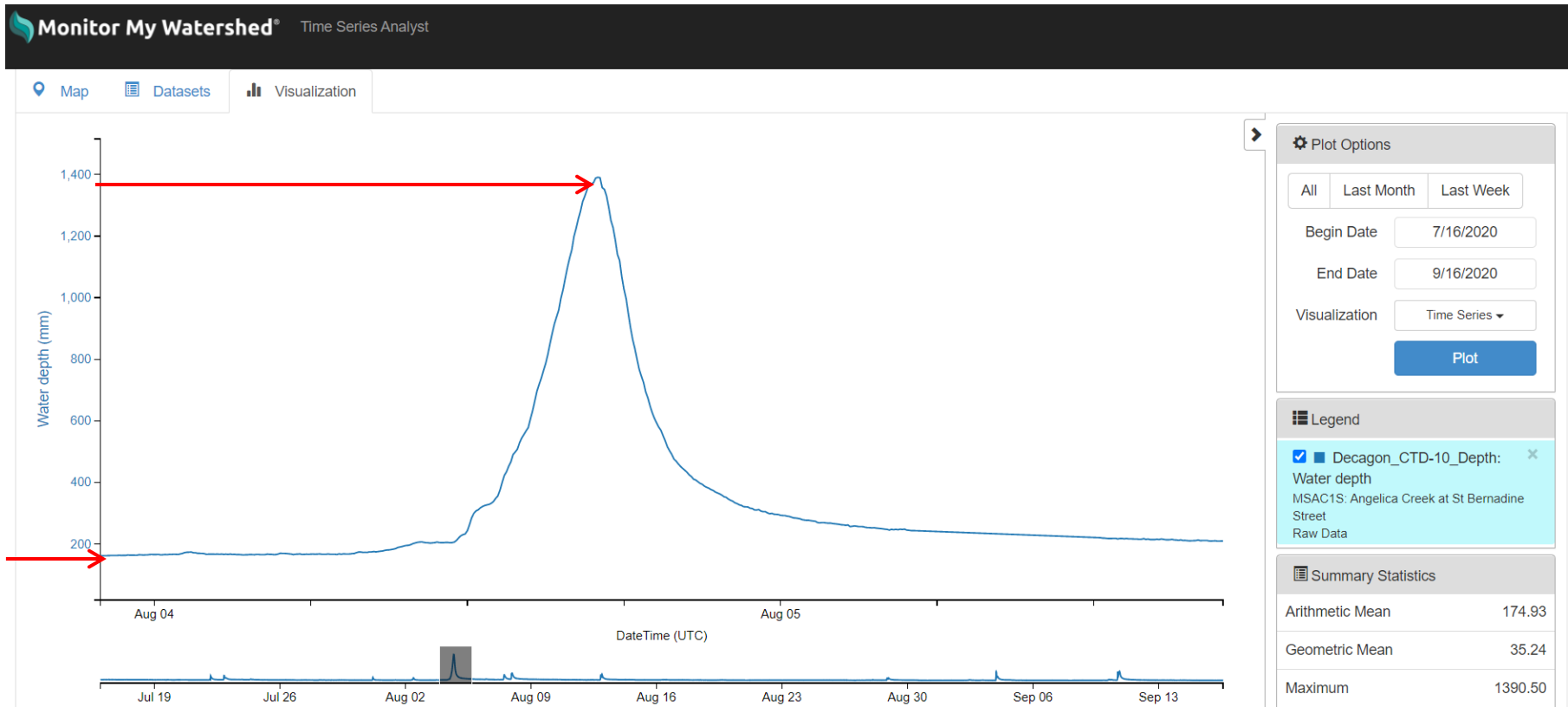
## During Storm Events



BCTR1S: Taylor Run - upstream of West  
Chester Taylor Waste Water Treatment Plant

# Normal depth patterns

## During Storm Events

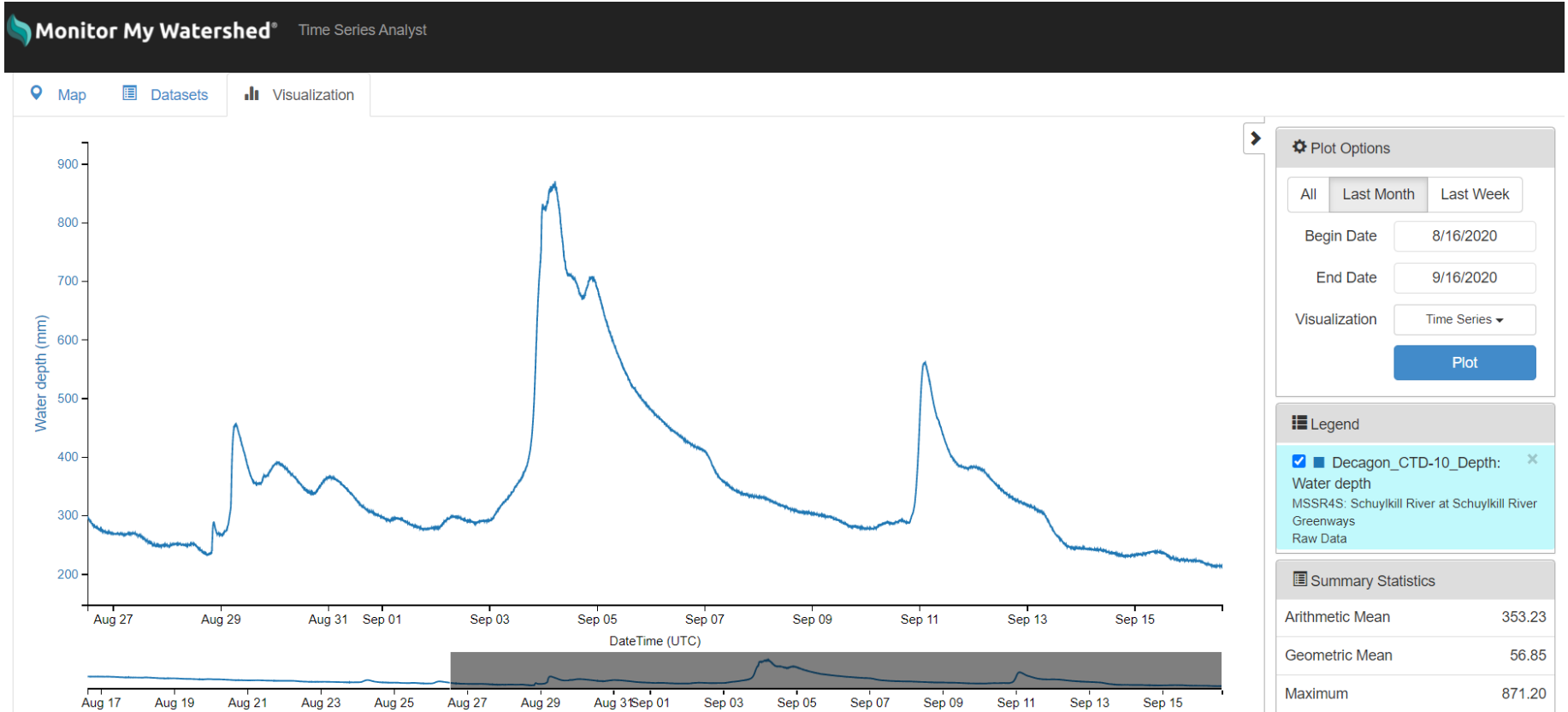


MSAC1S: Angelica Creek at St Bernadine Street



# Normal depth patterns

## During Storm Events

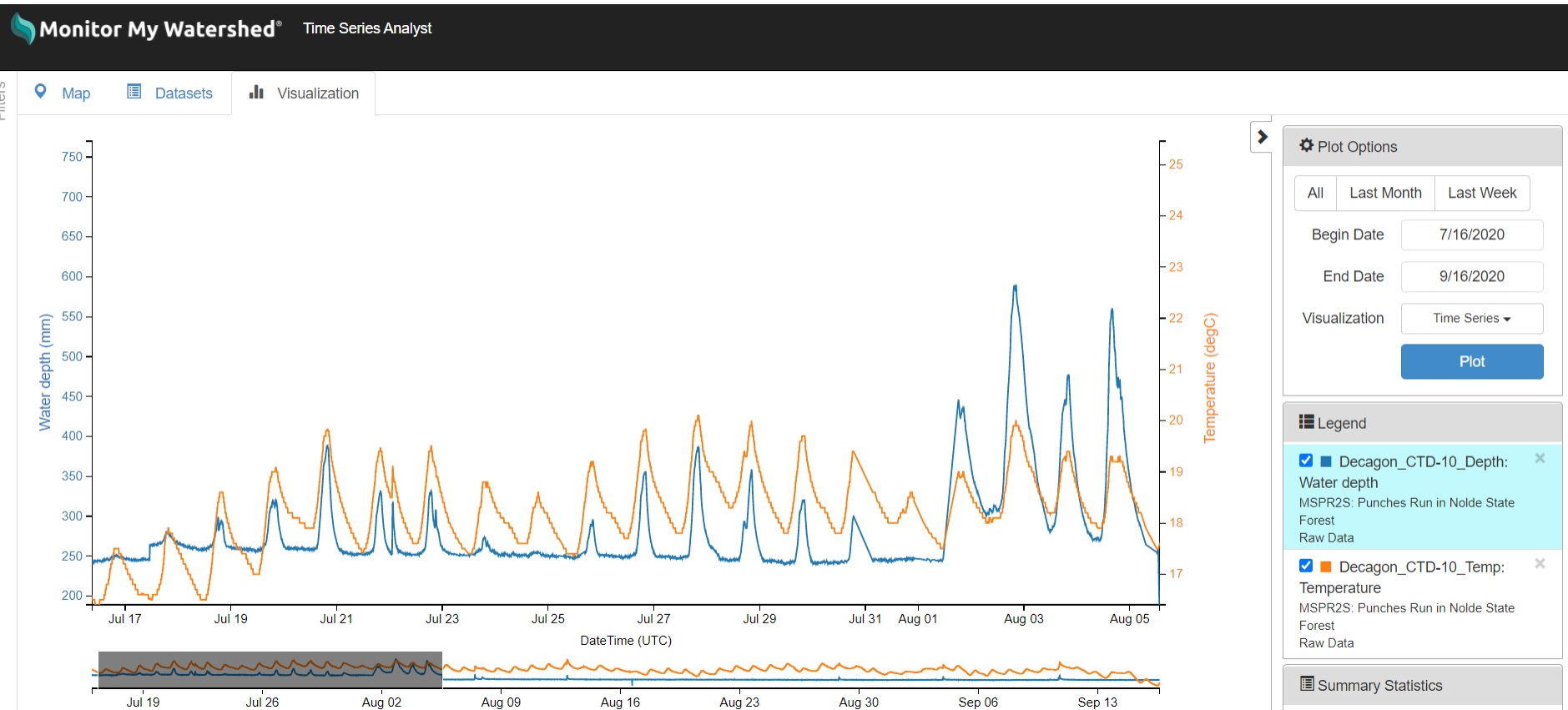


MSSR4S: Schuylkill River at Schuylkill River  
Greenways

# Common Depth Issues



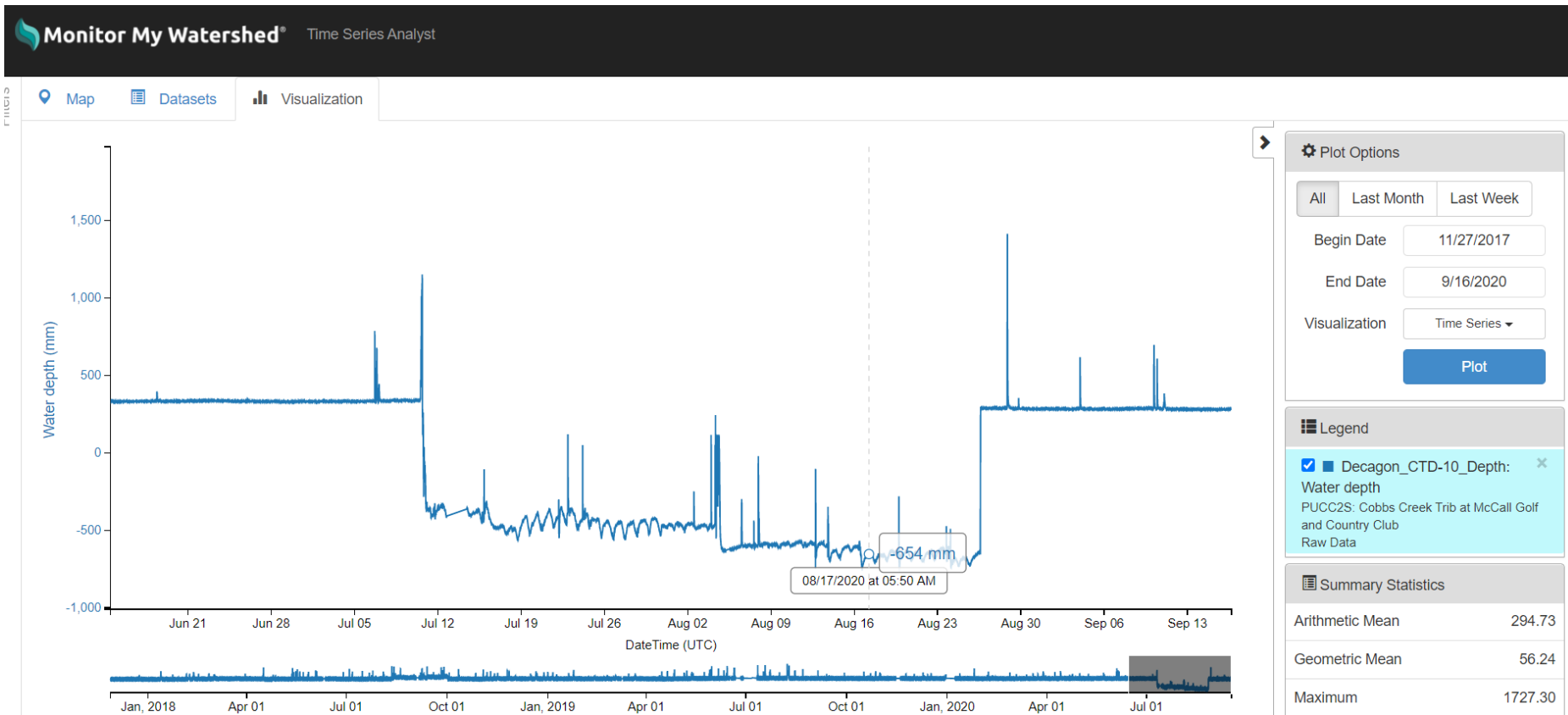
# Depth / Temperature correlation



MSPR2S: Punches Run in Nolde State Forest

# Depth out of range

## Negative Values



PUCC2S: Cobbs Creek Tributary at McCall Golf  
and Country Club

# Depth out of range

Dramatic increase in depth, followed by invalid data



PUPC2S: Primrose Creek at Solebury School



# Depth out of range

Dramatic increase in depth, usually after a storm, caused by sediment or other debris wedged against the pressure sensor



# Ice Damage / Winter precautions





# Depth QC measurements



As a quality check of your sensor depth, Take a measurement by hand, using a metric ruler.

Place the end of the ruler at the bottom of the opening in the CTD and measure to the water surface.

## QUALITY CONTROL - WATER LEVEL DATA *(Rec frequency: quarterly and/or more frequently as needed)*

<b>*Staff Gauge Height (m):</b>	<b>Time:</b>	<b>AM/PM?</b>	<b>EST/EDT?</b>
<b>*Sensor Station Water Depth (mm):</b>	<b>Time (military):</b>	<b>Not applicable</b>	<b>Always EST</b>
<b>*QC Sensor Station Water Depth (mm):</b>	<b>Time:</b>	<b>AM/PM?</b>	<b>EST/EDT?</b>

**Offset (=Staff Gauge Height - Sensor Station Water Depth)(mm):**

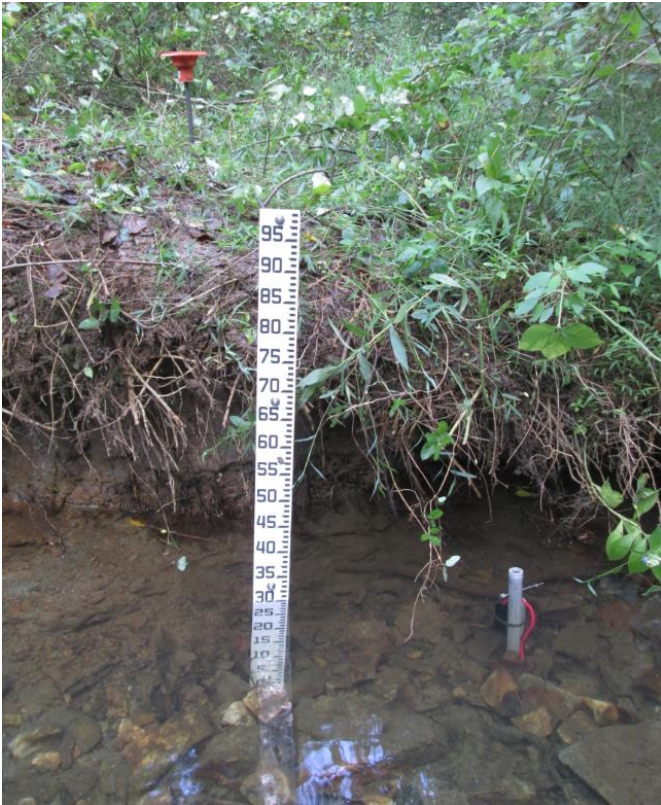
*a - Staff Gauge Height and Sensor Station Water Depth readings should be from about the same time (+/- 5 minutes).*

*b - Use metric ruler to measure from pressure transducer (white disc in CTD sensor) to water surface. Note - this depth measure may be slightly different from the sensor-measured depth but should be consistent over time.*



# Depth QC measurements

Staff gauge



QC Depth Rebar



# Questions ?

