

# Continuous Real Time and Online Data from Around The Watershed

Automated data monitoring stations are installed around the watershed and transmit data (via a cell phone link) to the Monitor My Watershed website, where it can be viewed on your phone or computer.

## What are the Monitoring Stations?

The monitoring stations included a small computer, a solar panel to charge the battery in the computer and an in-stream probe, that continuously monitor our network of streams to record water depth, stream temperature and conductivity every five minutes.

Our monitoring stations are a small part of a much larger citizen science (EnviroDIY) effort launched across Pennsylvania and our nation organized on the public access website [Monitormywatershed.org](http://Monitormywatershed.org)

The website is a non-profit, non-governmental, open access website presented by Stroud Water Research Center, Avondale, PA. The Stroud Center seeks to advance knowledge and stewardship of fresh water through research, education, and watershed restoration.

## Why has the BWA invested in Monitoring Stations?

Water depth measurements can help us understand how streams respond to rain, snow and ice melt, stormwater runoff from different landscapes, as well as groundwater and drought influence.

Stream temperature helps us understand how thermal variations throughout the year and how conditions relate to thresholds for aquatic life such as trout. Continuous data are the best way to get a detailed and accurate picture of thermal pollution in streams.

Conductivity is a measure of how well water conducts electricity and is directly related to the concentration of dissolved ions in the water. Conductivity is often used as a coarse measure of stream health and increases in response to urbanization. Runoff of road salt in the winter can cause extreme spikes in conductivity and can cause groundwater contamination resulting in salt contamination of streams throughout the year.

Each type of information is important on its own, but taken together, water depth, temperature and conductivity give us a record that can measure how development and other landscape activities are affecting stream health. Additionally, these data can provide insights on how climate change is warming streams and if winter salt application or other pollution events will affect stream life.

## What have the Stations been able to tell us so far?

The data give us a “big” picture. They tell the condition of streams at the moment as well as trends over time. This [link](#) the summary report (prepared by the Stroud Center) of 2023 summer temperature trends in the watershed, shows us the good news is most streams in the watershed are healthy, cool and clean. The Brodhead watershed has some of the very best stream water quality in Pennsylvania. Some of our streams though are impacted by high summer temperatures, and a few are subject to chronic salt pollution.

## How can BWA members help?

The BWA needs volunteers interested in helping maintain data loggers. We also need others to learn about the loggers and see what they show about streams near them.



*For humans, fish, and every living thing, Brodhead Watershed Association protects water quality and quantity throughout our area. Get involved! Become a member today.*  
<https://www.brodheadwatershed.org>