

## UNDERSTANDING

# Source Water Protection

**THE GOAL:** Prevent contaminants from entering waterways that serve as sources for our drinking water.

**THE BENEFITS:**

- ✓ Protects public health.
- ✓ Ensures a healthy habitat for countless species.
- ✓ Decreases need for costly, complex treatments to remove pollutants.

**The source water for Middleburg Municipal Authority is from surface water intakes and a groundwater well.**

Your water system has volunteered to participate in the Pennsylvania Department of Environmental Protection's Source Water Protection Technical Assistance Program (SWPTAP).

**THROUGH SWPTAP:** A plan will be developed to guide your water system's source water protection efforts in the future. Once complete, it will be available for all customers to learn more about assisting with our source water protection efforts.



## More Ways to Help



Minimize your use of pesticides and herbicides on your lawn and garden.



Bring hazardous waste (ex: paint) to recycling facilities.



Don't pour motor oil on the ground or in a storm drain. Dispose of motor oil at garages that recycle it.



Pump out your septic system every two or three years.



Do not flush any unwanted or leftover medications down the toilet or sink drain. Dispose of them at a disposal event or collection box.



Don't dump chlorinated pool water into a creek or storm drain. Direct it to a sanitary sewer or dechlorinate prior to disposal.

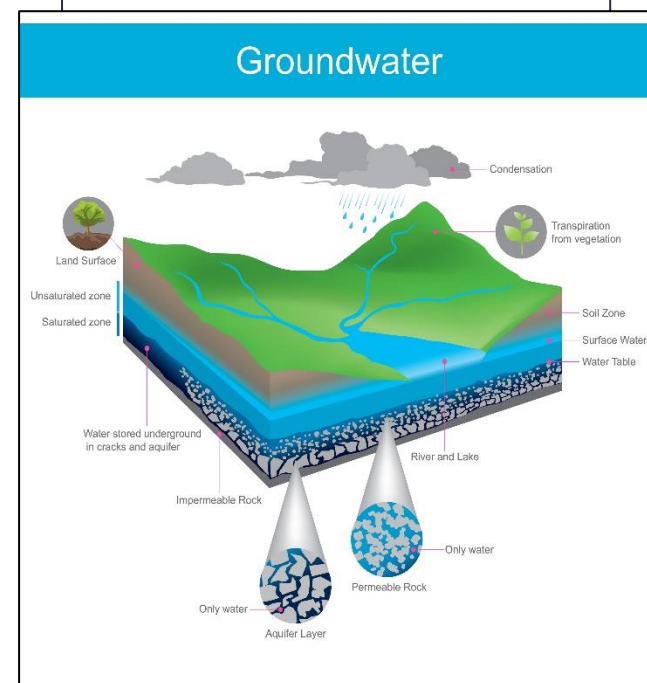


Remember that anything you throw or store on the ground or put down the toilet will find its way into waterways.

If you observe a chemical spill, call the PA Department of Environmental Protection at 800-541-2050.

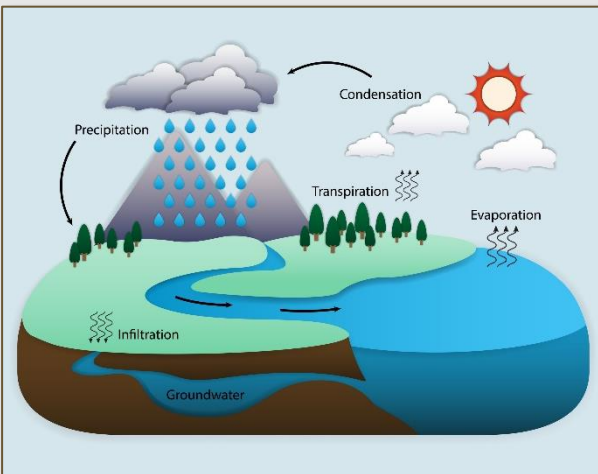
## CITIZEN'S GUIDE:

# Groundwater Testing for Safe Drinking Water



Middleburg Municipal Authority

This program is funded by the PA Department of Environmental Protection's Source Water Protection Technical Assistance Program.



*Middleburg Municipal Authority takes water quality testing very seriously to ensure that your drinking water is safe when it arrives at the tap.*



## Understanding Groundwater Aquifers

Groundwater is recharged, stored and discharged from underground saturated zones known as aquifers. Aquifers vary in size from just a few acres to large aquifers that cover multiple states.

Groundwater, like streams, is constantly in motion. However, it moves at a much slower pace. In fact, it's not unusual for groundwater to flow a few inches a day.

The natural movement for groundwater is to flow from headwaters of a watershed to topographically low areas where the groundwater is discharged into streams, lakes and springs.

When a well is pumped, groundwater flow in the aquifer is altered by creating a reduction in the pressure gradient, with water flowing from a higher to a lower pressure zone. This induced groundwater flow recharges the pumping well.

## Groundwater Testing

Community water systems routinely test for over 90 chemical compounds to ensure that your drinking water is safe to consume. The standards for these compounds are developed by the U.S. Environmental Protection Agency (EPA) and adopted by the Pennsylvania DEP.

**MAXIMUM CONTAMINANT LEVELS (MCL):** This is the highest level of a contaminant that is allowed for safe drinking water.

**HEALTH ADVISORY LEVELS (HAL):** This is another level of testing water for compounds that do not have specific MCLs.

As new chemical compounds are discovered that may be harmful to human health, new MCLs are established. Currently, EPA is developing MCLs for Per- and polyfluoroalkyl substances known as PFAS compounds. PFAS are manmade compounds found in a large array of products such as nonstick cookware, fabric coatings and firefighting compounds.

## Groundwater Treatment

At a minimum, groundwater for public supply is disinfected by using additives such as chlorine or chloramine. Based on water quality test results, additional treatment may be required.

Water systems undergo a comprehensive testing program that includes:

- ✓ **GROUNDWATER RULE:** Protection against pathogens and disinfection byproducts.
- ✓ **LEAD & COPPER RULE:** Minimize lead and copper from entering supply via plumbing.
- ✓ **REVISED COLIFORM RULE:** Reducing coliform pathogens to minimum levels.
- ✓ **DISINFECTION RULE:** Establishes chlorine residuals in the water distribution system to guard against pathogens.
- ✓ **RADIONUCLIDE RULE:** Provides testing for radionuclide MCLs in drinking water.

**Middleburg Municipal Authority**

13 North Main Street | Middleburg, PA 17842  
(570) 837-2533 | <https://middleburgborough.com/>

The members of your water system work around the clock to provide top quality tap water to every tap. It is a task that we take very seriously. For more information, contact us.