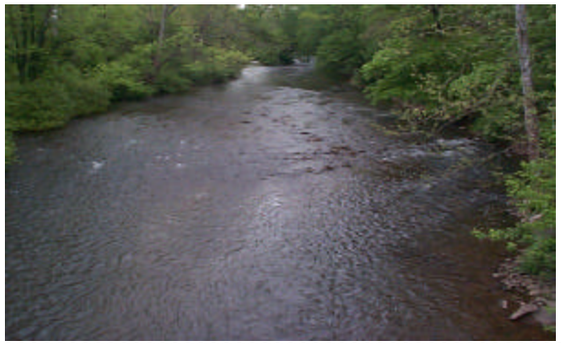
References

- Overview of Drinking Water Issues:
  (Available from League of Women Voters)
  - *Safety on Tap: A Citizen's Drinking Water Handbook*
  - *D.E.P. Fact Sheet: Pennsylvanian's Source Water Assessment and Protection (SWAP) Program*
- Specific to Private Well Owners or to Given Containment:
  (Available from EPA Safe Drinking Water Hotline: (800) 426-4791)
  - *Is Your Drinking Water Safe?* Publication No: 570/9-89-005
  - *Protecting Our Drinking Water from Microbes.* Publication No: 570/9-89-008
  - *Lead and Your Drinking Water*. Publication No: OPA-87-006
  - Removal of Radon From Household Water. Publication No: OPA-87-01

Stay tuned for more information to come on source water protection programs in the Pennridge Area!



Sources for More Information

- Pennsylvania Department of Environmental Protection (DEP), Bureau of Watershed Management: (717) 787-5259 or Regional Office: (610) 832-6060
- U.S. Environmental Protection Agency (EPA) Safe Drinking Water Hotline: (800) 426-4791 or (202) 382-5533 www.epa.gov/safewater
- Bucks County Cooperative Extension Office: (215) 345-3283
- Bucks County Health Department (215) 345-3318
- Bucks County Planning Commission: (215) 345-3400
- The Groundwater Foundation: (800) 858-4844 www.groundwater.org
- The League of Women Voters' Water Resources Education Network: (800) 692-7281 ext. 10 www.pa.lwv.org/wren

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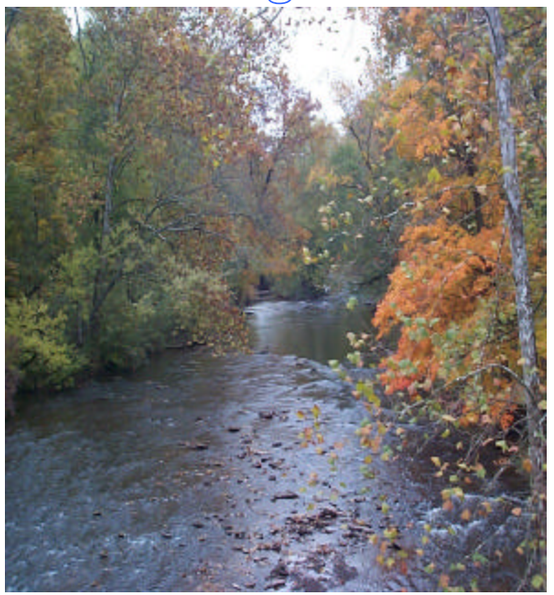
Protecting Water Quality in the Pennridge Area



East Branch Perkiomen Creek

How to Protect Source Water in Your Community

What are Source Waters?

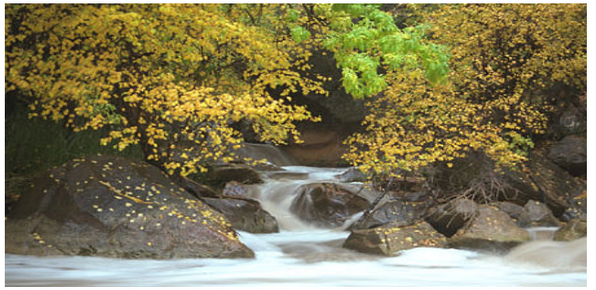
Source waters are the lakes, rivers, streams, aquifers, and springs that supply people with their drinking water. For a community to stay healthy and prosperous, all its residents must protect the quality of their drinking source water.

How Source Water Protection Works

Source water protection prevents the pollution of the lakes, rivers, streams, and ground water that serve as supplies for drinking water. Management of land around a reservoir or intake drinking water is an example of source water protection for a surface water supply. Wellhead protection is source water protection that prevents contamination of groundwater.

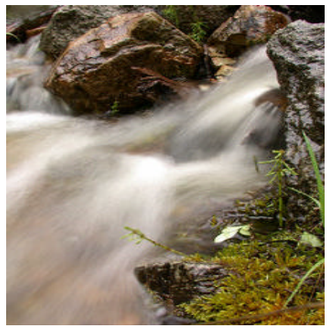
Why Protect Source Water Now?

In 1996 Congress adopted amendments to the Safe Drinking Water Act that require source water assessments be completed for all public water systems in the United States by September 2003. These assessments, which are being prepared by the Pennsylvania Department of Environmental Protection, will provide communities with tools that they need to make informed decisions about water consumption and how to protect their drinking water supplies.



Sources of Water Contamination

Many people assume that our water is naturally protected from contamination, especially if we rely on an underground drinking water source. The weed killers and insecticides used by us, our neighbors, or the farmer down the road may seem like the last things we should think about when it comes to water quality. A variety of pesticides, legally used and applied, have found their way into our drinking water supplies—including groundwater.



Major natural sources of drinking water contamination prior to treatment can include salt water, arsenic, heavy metals, and radon gas. Man-made contaminants enter water sources from point sources (leaking underground storage tanks, landfills, overflowing storm sewers) or non-point sources (agricultural runoff, fertilizers, pesticides, sediments, septic systems, highways, etc.).

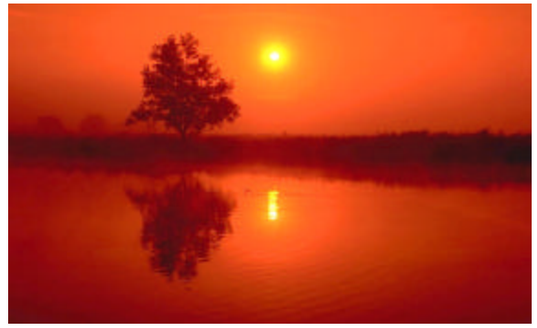
Monitoring for contamination takes place at the water treatment facility to detect contaminants that are present before the water treatment process. The potential for after-treatment contamination is the basis for monitoring water samples that may be taken at points along the distribution lines belonging to the system, at the point of entry into a service location, or at the point of use within a customer's home.

Private Well Users

Private wells may have a greater potential for contamination depending on how they are constructed and whether their water quality is routinely checked. It is important that well owners take steps to protect their wells.

Bacteria – typically coliforms – are contaminants that maybe found in private wells. The presence of these microbiological organisms can suggest the infiltration of animal or human wastes into well water. Septic fields, due to their frequent proximity to wells, are often the source of such contamination. Poor well construction can also cause this.

Nitrates are another common type of contaminant found in private wells. Their presence suggests animal and/or human wastes or applications of such substances as fertilizers are reaching the well. Nitrates are of special concern to young children and women of childbearing age.



Two other potential contaminants are lead and radon. The degree to which any well is vulnerable to contamination depends upon a variety of factors including local geology, depth to water table, soil characteristics, land use activities, and characteristics of home plumbing materials.

Action Steps for Private Well Owners

1) Test your water for bacteria at least once per year, after periods of significant rainfall, and after flooding has occurred, especially if you notice changes in the water's taste, odor, or color.

2) Test your water for nitrates once a year, especially if young children and women of childbearing age are consuming the water.

3) Test your primary kitchen tap at least once for the presence of lead or radon.

4) Assess surrounding land use activities—industrial, agricultural, governmental, and residential. Identify potential threats to private wells from these activities. Questions to ask yourself might include (a) Is your well close to less than 100 feet from your or a neighbor's septic field? (b) Are there gas stations nearby whose underground storage tanks could be leaking? (c) Is your well located near a road that is frequently salted or sprayed with deicers during the winter months? (d) Are pesticides and fertilizers applied near the well or on nearby croplands, lawns, or nurseries? and (e) Are oils, gasoline, paints, pesticides, and solvents safely stored around the home?

5) Test for contaminants of concern based upon information obtained from the well assessment activities done in the step above. Compare results to federal and state standards for the particular contaminant(s) in question.

6) If repeat tests show unacceptable levels of a given contaminant, take immediate action. Consult the Bucks County Health Department for suggestions on remedies.

Action Steps for All Residents

1) Find out where your drinking water comes from.

2) Identify things in the area that could contaminate your drinking water source.

3) Find out if potential contaminants could reach your drinking water.

4) Let other residents and local municipal officials know what you have found out about your drinking water source.

5) Keep potential contaminants away from your drinking water source.

6) Have a plan in case of an emergency.

7) Get involved in local water protection efforts.

8) Participate in annual household hazardous waste collection days sponsored by the county and your municipality.