

What is Groundwater?

Groundwater is the water that fills the small spaces between rock particles (sand, gravel, etc.) or cracks in solid rock. Rain, melting snow, or surface water becomes groundwater by seeping into the ground and filling these spaces. The top of the water-saturated zone is called the water table.

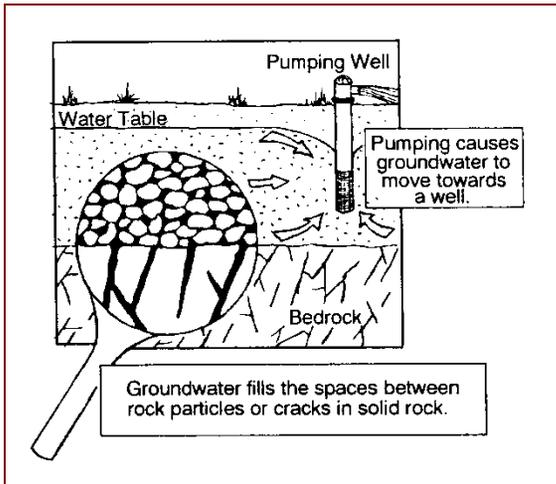
When water seeps in from the surface and reaches the water table, it begins moving towards points where it can escape, such as wells, springs, rivers, or lakes.

A spring occurs when the water table meets the land surface, allowing groundwater to naturally flow out of the ground.

An aquifer is any type of geologic material, such as sand or sandstone, that can supply water to wells or springs.

The groundwater, which supplies wells, often comes from within a short distance (a few miles) of the well. How fast groundwater moves depends on how much the well is pumped and what type of rock particles or bedrock it is moving through.

In areas with limestone (sometimes called karst), groundwater can move rapidly through dissolved channels in the rock. This rapid water movement makes limestone areas very sensitive to pollution.



Ways to Help

What can you do?

- Look for environmentally-friendly or biodegradable products whenever possible. Minimize the use of potential contaminants.
- Dispose of motor oil at a garage that will recycle it. Never pour oil on the ground or in a storm drain or sewer on the street.
- Pump out your septic system every two or three years. Look under "Septic Tanks" in the Yellow Pages to find a contractor.
- Bring household hazardous waste – such as paint, varnishes, and other chemicals – to a local waste collection site. Check with your county's Solid Waste department for dates.
- Minimize the use of pesticides and herbicides on your lawn and garden.
- If you drill a new well, make sure the old one is properly closed and abandoned.
- Do not dump swimming pool water into a creek or storm drain at the end of the season. If possible, direct the water into the sanitary sewer during dry weather, or wait until the chlorine diminishes and then direct it onto grass, forest, or other natural area.
- Remember: anything you throw or store on the ground can find its way into the groundwater. Store and handle chemicals properly.
- Call the Department of Environmental Protection at 814-332-6945 or 800-373-3398 after hours if you observe a chemical spill.

For more information

Pennsylvania DEP www.dep.state.pa.us

Watershed Protection www.epa.gov/owow/

Water Resources Education Network (WREN)
wren.palwv.org/resource.html

Groundwater and Karst

www.water.ky.gov/gw/gwtech/karst/

Maintaining Your Septic System

www.epa.gov/npdes/pubs/

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HOMEOWNER GUIDE

Protecting Your Drinking Water



Oil City Source Water Protection Program

This program is funded by the PA Department of Environmental Protection

For more information

City of Oil City Engineering Office

21 Seneca Street

Oil City, PA 16301

814/678-3020

A Message from Oil City

We work around the clock to provide top quality water to every tap. It is a task that we are proud of and take very seriously. We work hard to protect our water resources, which are the heart of our community, our way of life and our children's future. To maintain a clean, dependable water supply, we need your help. This brochure was developed to make our community aware of the importance of protecting our water supply. Once groundwater becomes contaminated, the cleanup often takes many years and can be very expensive. It is in our community's best interest to take the proper precautions to prevent contaminants from entering our groundwater.

If you have any questions about our Source Water Protection Plan, please contact the Oil City Engineering Office.

For more information

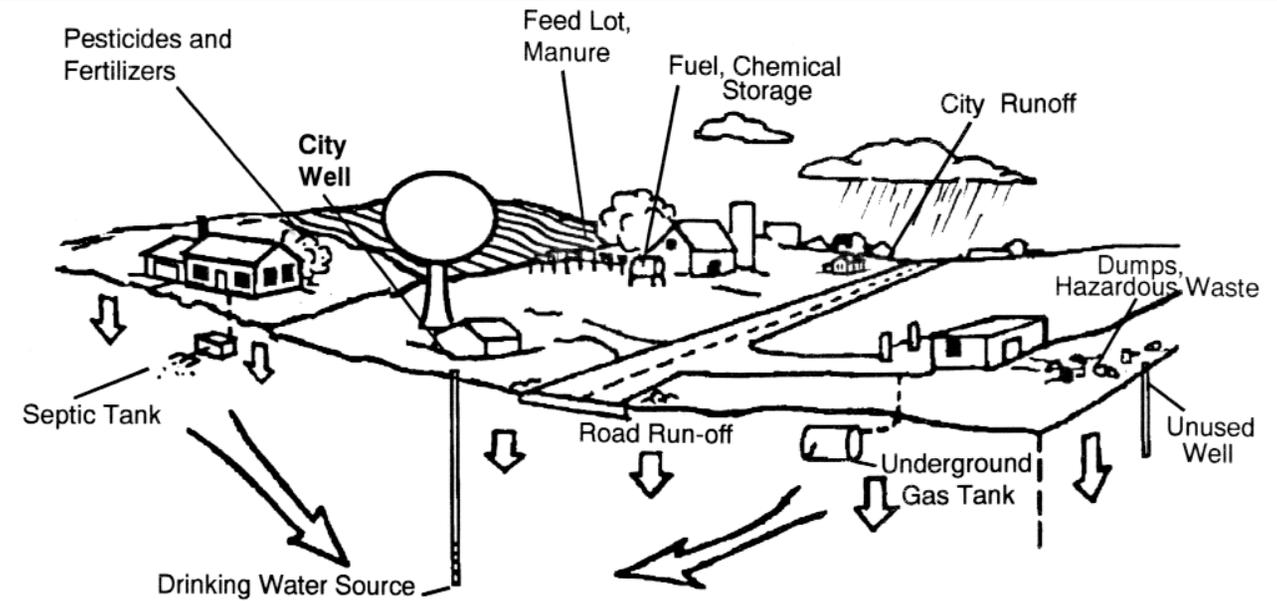
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Engineering and Environmental Services
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Examples of Source Water Contamination



Oil City obtains its drinking water from groundwater wells. Source water protection can help prevent drinking water from becoming polluted by managing possible sources of contamination in the area that supplies water to a public well. Everyone has an important part to play in protecting drinking water – today and for the future. Source water protection is a community effort – we hope you will read this and other information on Source Water Protection, and help protect our water supply.



Why do wells sometimes become polluted? Wells become polluted when substances that are harmful to human health enter the groundwater. Common pollutants include gasoline or oil from leaking tanks, nitrate and pesticides from agriculture, salt from winter road maintenance, and chemicals from industrial facilities. Once groundwater is contaminated, it must be treated or abandoned as a drinking water source. The expense of treating polluted water or finding a new source of drinking water can be avoided through source water protection.