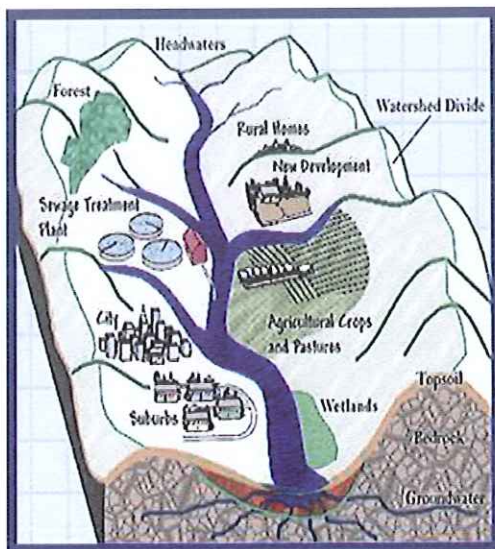


What is a Watershed?

A watershed is all the land that drains to the same river or lake. Water travels from the highest points at the watershed edge to the lowest point at the bottom of the watershed. Wherever you are, you are in a watershed!

When it rains, some water travels over the land surface to the nearest stream or creek. This water is called surface runoff or stormwater. As the stormwater flows, it picks up any contaminants lying on the surface – pesticides and fertilizer from lawns, manure from farms, sediment from construction sites, and oil and gas from roads. Small streams join to form larger and larger rivers, until the water – and any contaminants it is carrying – reaches the water sources.

Some precipitation, instead of traveling over the land, will percolate into the soil and reach the groundwater. Similarly, the groundwater may pick up nitrates from failing septic systems, gasoline from leaky storage tanks, and industrial chemicals from improper dumping. The groundwater ultimately flows into one of the rivers or lakes in the watershed.



Ways to Help

What can you do?

- 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.
- Purchase alternative products that contain fewer hazardous ingredients.
- Use only as much as you need, and use up the product completely.
- Minimize the use of pesticides and herbicides on your lawn and garden. Use biodegradable products when available.
- Do not pour used or unused chemicals or paints down the drain or flush in the toilet.
- Use water-based paints if possible. Sweep up dust and paint chips from sanding or stripping activities.
- NEVER mix leftover chemicals with other materials.
- Make sure all chemicals are properly labeled and stored away from children and pets.
- Contact your county solid waste department for HHW collection events in your area.
- Remember: anything you throw or store on the ground can find its way into the groundwater. Store and handle chemicals properly.

For more information

Check the Adams County Environmental Services website for programs available.

<http://www.adamscounty.us/Dept/Planning/Pages/SolidWaste-Recycling.aspx>

CITIZEN'S GUIDE

Proper Disposal of Household Hazardous Waste



Gettysburg Municipal Authority Source Water Protection Program

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

For more information:
Gettysburg Municipal Authority
601 East Middle Street
Gettysburg, PA 17325
717-334-6738
www.gettysburgma.com

Remember, it's not just toxic to you!

Did you know that many household products are dangerous to our children, pets, and the environment? Household cleaners, lawn and garden chemicals, gasoline, antifreeze, and many other substances need to be stored and disposed of properly.

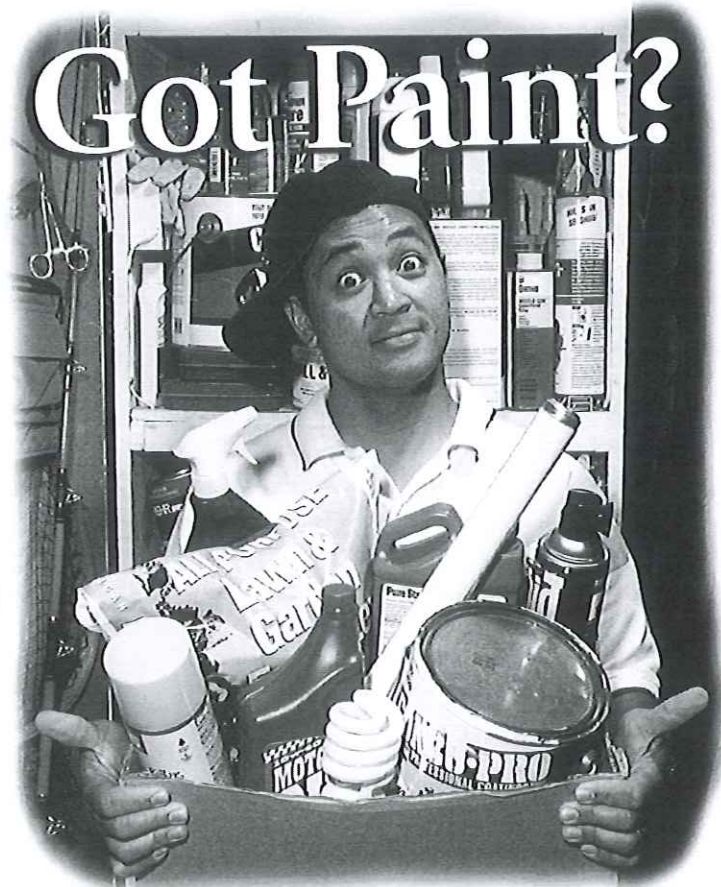
When Household Hazardous Waste (HHW) makes its way into the environment, plants, animals, and humans can all be affected. Never throw away these materials into the trash or flushed down a drain.

All the items listed in this brochure should be carefully handled and disposed of according to directions. Check for HHW collection events sponsored by your municipality or the county government.



Examples of Household Hazardous Wastes

- ✓ Latex and oil-based paint
- ✓ Vehicle fluids like gasoline, used motor oil, and antifreeze
- ✓ Lawn & garden fertilizers, pesticides, and herbicides
- ✓ Pool Chemicals
- ✓ Solvents
- ✓ Household cleaners
- ✓ Electronic devices
- ✓ Asphalt and driveway sealants
- ✓ Ammunition
- ✓ Vehicle batteries
- ✓ Lithium/NiCad batteries
- ✓ Outdated or unused pharmaceuticals



How does drinking water sometimes become polluted?

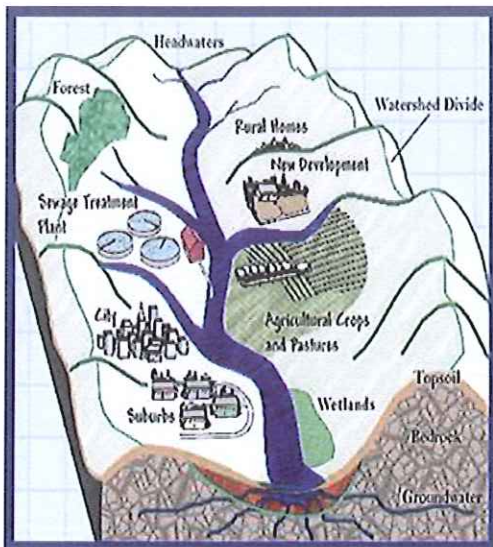
Your drinking water may become polluted when substances that are harmful to human health enter the groundwater or surface source, like a lake or reservoir. Common pollutants include gasoline or oil from leaking tanks, homeowner lawn and garden activities, salt from winter road maintenance, and other chemicals from stormwater runoff. Once water 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.

What is a Watershed?

A watershed is all the land that drains to the same river or lake. Water travels from the highest points at the watershed edge to the lowest point at the bottom of the watershed. Wherever you are, you are in a watershed!

When it rains, some water travels over the land surface to the nearest stream or creek. This water is called surface runoff or stormwater. As the stormwater flows, it picks up any contaminants lying on the surface – pesticides and fertilizer from lawns, manure from farms, sediment from construction sites, and oil and gas from roads. Small streams join to form larger and larger rivers, until the water – and any contaminants it is carrying – reaches the water sources.

Some precipitation, instead of traveling over the land, will percolate into the soil and reach the groundwater. Similarly, the groundwater may pick up nitrates from failing septic systems, gasoline from leaky storage tanks, and industrial chemicals from improper dumping. The groundwater may supply your drinking water wells, and ultimately flows into one of the rivers or lakes in the watershed.



Other Ways to Protect Your Drinking Water

What can you do?

- Dispose of used motor oil at a garage that will recycle it. Never pour oil on the ground or in a storm drain on the street.
- Minimize the use of pesticides and herbicides on your lawn and garden. Use biodegradable products when available.
- Do not pour unwanted pharmaceuticals or unused chemicals or paints down the drain or flush in the toilet. Take your pharmaceuticals to a collection area to avoid use by others.
- Participate in community cleanup events or planting projects.
- Contact your county solid waste department for Household Hazardous Waste collection events in your area.
- Clean up after your pet. Pet waste contains bacteria and other pathogens that can make its way into waterways through rain or snow melt.
- If you have an on-lot septic system, inspect it and arrange for pump-out every three years, or according to local ordinances.
- Remember: anything you throw or store on the ground can find its way into the groundwater. Store and handle chemicals properly.

For more information on recycling programs:

Check the Adams County Environmental Services website for programs available.

<http://www.adamscounty.us/Dept/Planning/Pages/SolidWaste-Recycling.aspx>

CITIZEN'S GUIDE

Tips for Residential Heating Oil Tank Owners



Gettysburg Municipal Authority Source Water Protection Program

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

For more information:

Gettysburg Municipal Authority
601 East Middle Street
Gettysburg, PA 17325
www.gettysburgma.com

The Costs of Cleanup

When heating oil or other materials makes its way into the environment, plants, animals, and humans can all be affected. Leaking tanks can potentially contaminate public water supplies, private wells, contaminate soil, and cause fire or explosion hazards.

Cleanups to tank owners can also be very expensive. Owners of leaking underground storage tanks are required to clean up affected contaminated soil as well as polluted groundwater or surface water like creeks and streams.

If you notice a leak, it is in your best interest to clean it up promptly and properly to reduce expense, liability, and the potential for contamination. Your best bet is to prevent contamination by monitoring and maintaining your tank.

Access these informative factsheets at www.dep.pa.gov KEYWORD Tank Tips:

- *Tips for Residential Heating Oil Tank Owners*
- *Home Heating Oil Releases*
- *Leaking Underground Storage Tanks: Controlling Cleanup Costs*



How can releases from residential tanks be prevented?

- ✓ Routinely inspect the exterior of an aboveground tank and all attached equipment.
- ✓ Install spill and overfill prevention devices.
- ✓ Ensure that the tank address is clear and the fill line is marked, to help avoid accidental deliveries.
- ✓ Consider a secondary containment structure to prevent spills or leaks from entering the environment.
- ✓ Be sure to take out the fill pipe if removing a tank from inside your home.
- ✓ If you notice drips or leaks, or you are using more oil than normal, call a professional for a detailed inspection of your tank.



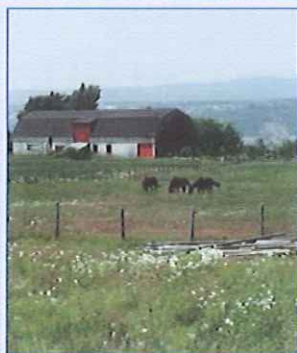
How does drinking water sometimes become polluted?

Your drinking water may become polluted when substances that are harmful to human health enter the groundwater or surface source, like a lake or reservoir. Common pollutants include gasoline or oil from leaking tanks, homeowner lawn and garden activities, salt from winter road maintenance, and other chemicals from stormwater runoff. Once water 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.

Protecting Our Drinking Water

Much of the Pennsylvania countryside is in agricultural operations, and plays a huge role in our commonwealth's production of food. Conversely, agriculture also has a huge impact on the drinking water sources throughout the state. Farmers have a unique challenge in balancing efficient operations with environmental stewardship. This brochure is designed to provide information on various Best Management Practices (BMPs) that can help reduce nutrients found in manure and sediment from row crops.

All agricultural producers are encouraged to seek assistance from their County Conservation District and the Natural Resources Conservation Service for the installation and implementation of these practices.



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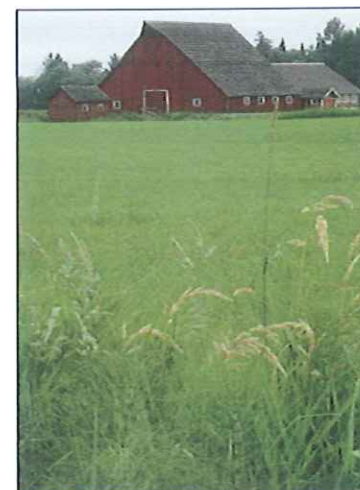
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Some precipitation, instead of traveling over the land, will percolate into the soil and reach the groundwater. Similarly, the groundwater may pick up these contaminants, which are then carried by the groundwater into one of the rivers or lakes in the watershed.



CITIZEN'S GUIDE

Agriculture and Your Drinking Water



Gettysburg Municipal Authority Source Water Protection Program

*This brochure was funded by the PA Department
of Environmental Protection's Source Water
Protection Technical Assistance Program*

For more information
Gettysburg Municipal Authority
601 East Middle Street
Gettysburg, PA 17325
www.gettysburgma.com

How Does Drinking Water Become Polluted?

Your drinking water may become polluted when substances that are harmful to human health enter the groundwater or surface source, like a lake or reservoir. Sometimes pollutants like manure and sediment from stormwater runoff find their way into streams and creeks. Once water 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.



For more information:

Natural Resources Conservation Service

<http://www.pa.nrcs.usda.gov/>

County Conservation District

<http://pacd.org>



Examples of Agriculture Practices That Reduce Pollution



No-Till Planting and Contour Strips reduce loss of sediment through stormwater runoff.



Grazing Management helps maintain plant life on pasture lands, reducing soil loss during rain events or snow melts.

Buffer Plantings along streams and creeks help filter pollutants in stormwater runoff from getting into the water.



Streambank Fencing prevents animals from depositing manure into streams. The fence also avoids destruction of the streambanks that add sediment to the water.



Conservation and Nutrient Plans help farmers with sustainable operations while complying with Pennsylvania Chapter 102 and Act 38 regulations.

Creek Crossings minimize animal access to streams, and reduces manure and sediment contamination.

