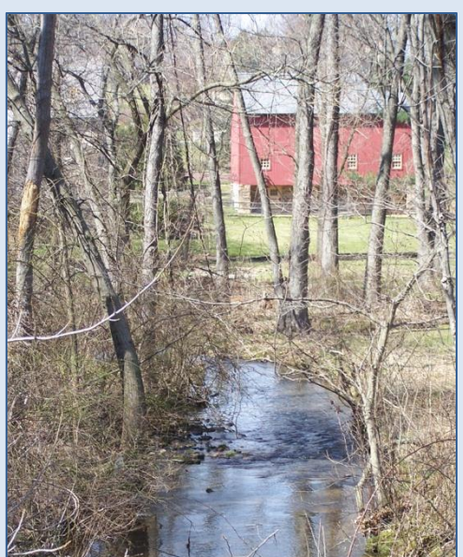
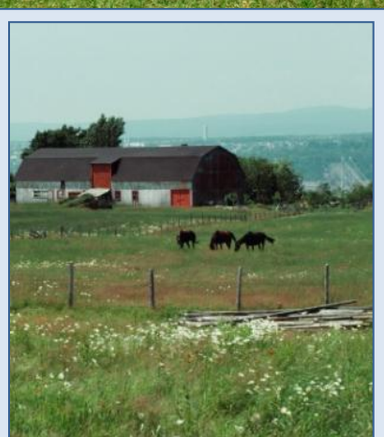
Protecting Our Drinking Water

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.









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!

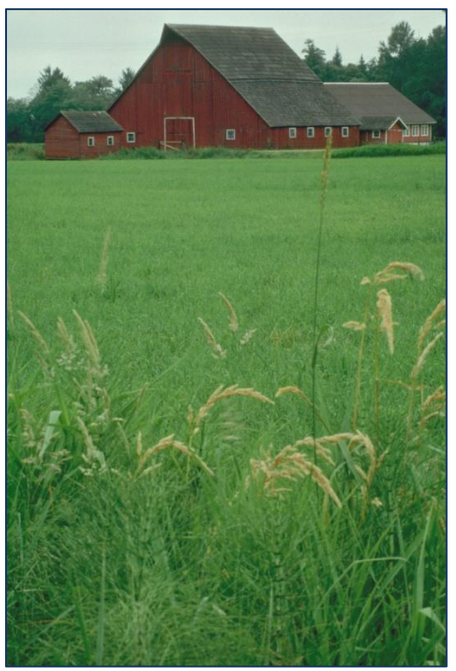
When it rains, some water travels over the land surface to the nearest stream or creek. This water is called *surface runoff* or *stormwater*. As the stormwater flows, it picks up any contaminants lying on the surface – pesticides and fertilizer from lawns, manure from farms, sediment from construction 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.

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.



HOMEOWNER GUIDE

Agriculture and Your Drinking Water



Reading Area Water Authority
Source Water Protection Program

For more information
Reading Area Water Authority
1801 Kutztown Road
Reading, PA 19604
(610) 406-6300

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/

Berks County Conservation District
http://berkscd.com/

RAWA
READING AREA WATER AUTHORITY

SSM
SSM GROUP, INC.
Engineering and Environmental Services
ssmgroup.com

Examples of Agriculture Practices That Reduce Pollution



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



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





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



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

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



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

