



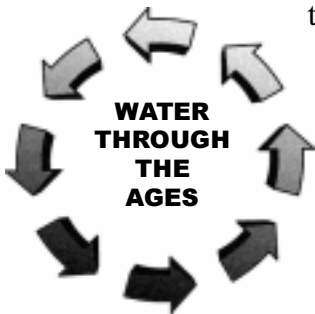
As a Citizen, What Do You Know about Wastewater?

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Your answer to this question is probably “not very much!” Furthermore, you may be thinking “Just what do I need to know?” As a citizen, a homeowner, or a renter, what you don’t know about wastewater could be harmful—even deadly—to you and your family.

How Does Wastewater Affect Me?

Whether you realize it or not, the water we use day after day never goes away. It is the same water that has been used since the beginning of time. The only exception is water that has been identified as being so badly contaminated that treating it would not make it safe or usable. This means that even our wastewater must be returned to the environment so that it can be reused again and again. Water has been recycled through the ages long before we understood or recognized the importance of this environmental concept.



typhoid, dysentery, and other water-related illnesses. In addition, wastewater impacts the local economy, recreation, residential and business development, utility bills, taxes, and other aspects of our everyday life.

Storm water is a collection of surface runoff following a rain. As water runs off the land, it can pick up impurities. Water collected in storm sewers may travel to a treatment plant, but more often to a nearby stream, river, or collection basin.

What Is Wastewater?

Wastewater is sewage and storm water. It is water that has been used and/or discarded. Wastewater comes from our homes, local factories, businesses, and industries. It comes from farm animals, wildlife, and humans. Unless it is properly treated, wastewater can cause serious health effects such as cholera,

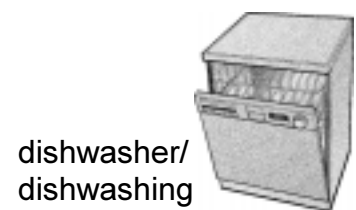
Black water—
sewage water from toilets



Gray water—all other sources:



tap



dishwasher/
dishwashing



laundrying



bathing

In most communities, wastewater comes from both residential and nonresidential sources. Household or residential wastewater is divided into black water and gray water. These types of household wastewater have different characteristics, but both contain substances that can cause disease if not properly treated.

During a water emergency, the recommendation is frequently made to use gray water from rinsing dishes, bathing, and unused tap water to flush toilets or to water plants. In some sections of the United States, certain types of home treatment devices are used to recycle gray water to toilets and irrigation systems to conserve water. This practice is not generally needed in Kentucky.

Wastewater is basically more water than any other substance. However, anything that can go down the drain or be put in the toilet can be found in wastewater. Common items found in household wastewater include organisms (bacteria, protozoa, etc.), pathogens (viruses, parasites, etc.), organic matter (food, paper, detergents, etc.), oil and grease, inorganics (metals, minerals, etc.), nutrients (nitrogen and phosphorus), solids (items that do not degrade or dissolve), and gases.

How Is Wastewater Treated?

Household wastewater is primarily treated through one of two ways:

- municipal system (sewer to treatment plant)
- septic system (on-site/nearby).

If your home does not have access to a municipal sewer system, a septic system is typically the wastewater treatment system of choice in Kentucky. Legislation passed in 1996 requires all newly built homes not connected to a municipal sewer system to have an approved septic system before electricity can be turned on. The use of straight pipes is prohibited for residential and nonresidential use.

Until 1854, very little was known about the connection between disease and sewage control. Straight pipes and open waste areas were common. Since that time, great strides have been made in the United States and across the modern world as a result of increased technology, legislation, and science. Community leaders are now responsible for ensuring that state and national standards for wastewater treatment and water quality are met. Homeowners are personally liable for malfunctioning on-site septic systems. On-site systems must be properly serviced and maintained to protect groundwater and other drinking water sources.

What Does This Mean to Me?

It's important to know what type of wastewater system your home uses. If it is a septic system, become familiar with how to care for and maintain your system. Ask your county Extension agent for additional information.

- Home septic system maintenance records could be important when buying or selling your home. Do you have a septic system maintenance log? Ask for a *Homeowner's Septic System Guide and Record Keeping Folder* by calling (502) 564-4856.
- Reducing wastewater saves money. Municipal sewer users pay a sewer fee based on the amount of water used each month. Using less water lowers sewer charges as well as your water bill.
- Being water efficient benefits septic system users. It prevents system failures, extends the life of the system, and lowers overall maintenance costs.
- Community-wide water conservation programs can increase the wastewater treatment plant's efficiency and costs. These savings can translate into more dollars for schools, roads, and other projects.

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