

Home & Environment

Understanding and Protecting Kentucky's Watersheds

Ashley Osborne, Environmental and Natural Resource Issues; Jenny Cocanougher, 4-H and Youth Development; and Amanda Gumbert, Water Quality

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We all live in a watershed

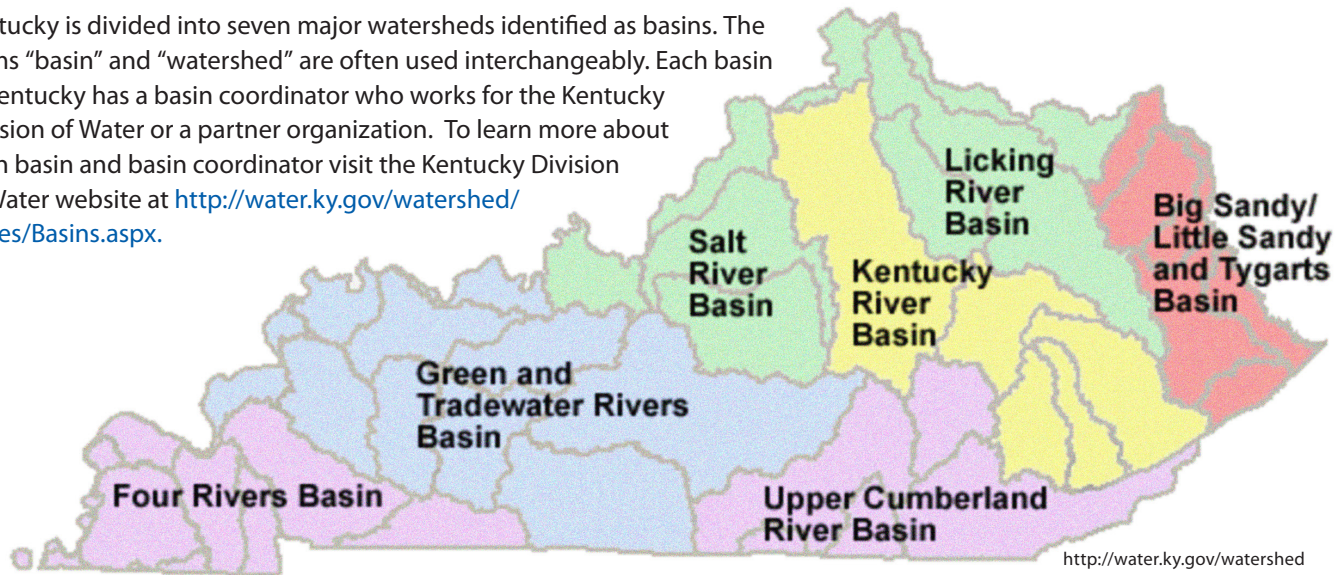
Regardless of where you are, you are always in a watershed. A watershed is any area of land that drains water to a single water body such as a stream or lake. Watersheds can be as small as just a few acres draining into a small stream or as large as several rivers draining into the ocean. Watersheds do not follow county, state, or national boundaries.

The land in a watershed affects how the water flows. If a watershed has numerous hills and mountains, precipitation runs off quickly. This runoff will reach the stream or body of water soon after a rain or snow event. If the land in the watershed is mostly flat, precipitation will run off more slowly and will not reach the stream or body of water as quickly. The rain or snowmelt may soak into the soil and become groundwater.



Kentucky's watersheds

Kentucky is divided into seven major watersheds identified as basins. The terms "basin" and "watershed" are often used interchangeably. Each basin in Kentucky has a basin coordinator who works for the Kentucky Division of Water or a partner organization. To learn more about each basin and basin coordinator visit the Kentucky Division of Water website at <http://water.ky.gov/watershed/Pages/Basins.aspx>.



What watershed do you live in?

Knowing what watershed you live in is a first step toward protecting water quality. To locate your watershed, visit Surf Your Watershed, an online tool offered by the U.S. Environmental Protection Agency at <http://cfpub.epa.gov/surf/locate/index.cfm>. The site provides watershed-specific information including citizen-based groups working in the watershed and water quality monitoring data.

Watersheds and water quality

As humans, we impact the health of our watersheds. We use the land in watersheds for many purposes such as houses, shopping centers, parks, golf courses, factories, farms, and roads. These uses affect how water flows. They also affect the quality of the water. Precipitation washes pollutants from the land into our streams, lakes, and other waterbodies. Everyone who lives in a watershed impacts water quality.

Take a moment to think about the path precipitation follows. When it

reaches the ground, it will either soak into the soil or run along the surface. Precipitation that lands on a parking lot can pick up motor oil and other types of pollutants. Precipitation that lands on a lawn or farm field may carry fertilizer or loose soil with it as it travels. Precipitation that lands on a bare hillside can wash part of the soil away as it moves. All of these are examples of nonpoint source pollution.

Nonpoint source pollution, also referred to as runoff pollution, cannot be traced back to a single starting place. The pollutants are carried in water as it runs off the land. Nonpoint source pollution is the largest water quality problem in the United States today.

Runoff can travel directly to rivers, lakes, and streams, or it may travel through storm drains. Stormwater is runoff water from rain and snow-melt. In cities and towns, a system of drains and pipes is often used to carry stormwater. These systems usually empty into a nearby body of water. They most often do not take water to a treatment plant.

The most common pollutants carried in runoff are sediment and nutrients.

Sediment is soil that is carried in water. The soil can come from farm fields, construction sites, logging sites, or any bare land. As the water moves across the land, it picks up soil particles. This soil travels with the water until it reaches a stream, lake, or river.

Nutrients are found in waste from animals and humans and in fertilizer. Pasture fields and animal feeding lots can be sources of nutrients. Pet waste can be carried in runoff water from lawns. Farm fields, golf courses, and lawns may use fertilizers. If not applied properly the fertilizers can wash away in runoff.

Runoff water can also carry other pollutants. Pathogens can enter runoff water from animal wastes or failing sewer systems. Oil and automotive fluids can wash off streets, roads, parking lots and driveways. Vehicle emissions contain nitrogen oxides and sulfur dioxides that create acid rain when released into the air. Pesticides may be found in runoff from farm fields, lawns and gardens. Toxic chemicals such as paint and household cleaning products are sometimes washed away when spilled on the ground.

Even if you are not in agriculture, construction or logging, you can help prevent nonpoint source pollution with actions you take at your own home.

Protecting our watersheds and waterbodies

We all can help prevent nonpoint source pollution. Farmers and developers use best management practices (BMPs) to help prevent water pollution. Best management practices are techniques or management strategies that help prevent water pollution. These practices can help stop soil erosion and keep nutrients out of water. BMPs can also be used to keep soil from running off construction sites and logging sites. Even if you are not in agriculture, construction, or logging, you can help prevent nonpoint source pollution with actions you take at your own home.

Make a difference in your watershed by:

- Never littering
- Composting yard waste
- Choosing hardy plants in landscaping that require little to no watering, fertilizers, or pesticides
- Covering bare soil with straw or mulch to prevent soil erosion
- Using permeable surfaces, such as wood, brick, or gravel for decks, patios, and walkways
- Picking up after your pet and disposing of their waste in the toilet or trash
- Keeping your septic system in good working condition
- Walking, biking, or carpooling
- Repairing vehicle leaks
- Adopting your watershed!

- The U.S. Environmental Protection Agency's Adopt Your Watershed Program provides information about volunteer groups working to protect watersheds across the U.S. To learn more about the program visit <http://water.epa.gov/action/adopt/>. Join or organize a group to collect trash in your watershed. Ask local businesses to donate trash bags and gloves.
- Conserving water
 - On average, Kentuckians use 70 gallons of water per day per person. Approximately 70 percent of our water use is indoors, most of it used in the bathroom. By making a few simple changes in your daily routine, such as turning the water off while brushing your teeth, taking a shorter shower, and fixing any leaky faucets or toilets, you can do your part.
- Disposing of hazardous waste properly
 - Never dump waste down the storm drain or into the street! Contact your county solid waste coordinator or Cooperative Extension agent for information about local hazardous waste collection days, or visit www.earth911.com, a website that helps you recycle hazardous items in your area.

References

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About the authors

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