# 470 Ind/Sta A98480 **United States Department of Agriculture** Soil Conservation Service PA-420 What is a Watershed?

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## What is a WATERSHED?

"Watershed" is a new term to many people. The increasing use of soil and water conservation measures for watershed protection and flood prevention is bringing the term into more common use. Its definition is almost as simple as the well-known phrase "water runs downhill."

The drainboard that carries rinse water into your kitchen sink can be compared to a watershed.

On the land, water that does not evaporate or soak into the soil usually drains into ditches, streams, marshes, or lakes. The land area from which the water drains to a given point is a watershed.

When you were a small child, you probably had a favorite mud puddle in which you liked to play. The part of the yard from which the water drained into the puddle was its watershed.

Possibly a small stream ran by your house. It may have been dry most of the year or it may have flowed continuously. Water from a few acres drained into that little stream. Those few acres were its watershed. This small stream and others like it ran into a larger one. The land areas drained by the small streams made up the watershed of the larger stream into which they flowed.

Small watersheds make up the larger ones. The Mississippi River, for example, drains a watershed of about 1,243,000 square miles.

This large watershed is made up of thousands of smaller ones.

So, wherever you live you are in a watershed. It can be just your own backyard or the area drained by a small creek or a large river.

Your watershed may include farm or ranch land. It may include hills or mountains or both. Or it may be nearly flat. Some of it may be rough, rocky, or marshy land suited only for trees and wildlife. Some of it may be covered with towns, suburban developments, or industrial plants.

You and the other people who live in the watershed are part of the watershed community. So are the animals, the birds, and the fish. All depend on the watershed, and they, in turn, influence what happens there—

whether it's good or bad. What happens in your small watershed also affects the larger watershed downstream.

Why your watershed is important. — Water may be a friend or it may be an enemy. If it runs off the land too fast, it cuts gullies and carries off topsoil which should be kept on the farm to produce food and clothing. This soil along with other debris the water carries into streams and lakes may spoil fishing. It may also reduce the amount of water the stream or lake can hold and thus decrease the water supply for your town and your bathroom. Such sediment carried downstream by runaway water may greatly increase the cost of filtering the water you get from the kitchen faucet. It can interfere with the hydroelectric plant that produces your electricity. This may make your electric bills higher.

A small watershed consisting of all or parts of several farms. The land drains into the ditch in the center.





Diagram of a watershed.

If too much water runs away too rapidly, it causes a flood that damages farms, ranches, crops, property, homes, highways, and utilities. It may take lives. Stream channels may be choked with sediment. Then the flood is more serious because the choked-up channels carry less water. Sediment deposited in reservoirs after heavy rains reduces the amount of water that can be stored for use in water-short areas. When water does these things it is an enemy. But water can be slowed down and used to



Diagram of the same watershed with the farm fields, trees, buildings, and roads removed to show the drainage pattern.

advantage when soil and water conservation practices and other flood-prevention measures are put in over all the watershed. Terraces. stripcropping, more grass and legumes in crop rotations, and improved pastures are practices that make more water soak into the soil for use of crops, pasture, and range. Small dams can hold back runoff water that would otherwise cause flood damage. These dams may also store water for irrigation, recreation, and municipal or industrial water supply. Conservation irrigation systems waste less water and thus leave more for other irrigators to use. Later some water will go into streams, lakes, or underground storage to be used in other ways. It doesn't carry sediment to clog streams and water supplies. Thus, more water is available for the many uses people make of it. Then water is a friend.

More detailed information on soil and water conservation and watershed protection and flood prevention can be obtained from your local Soil Conservation Service office.

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