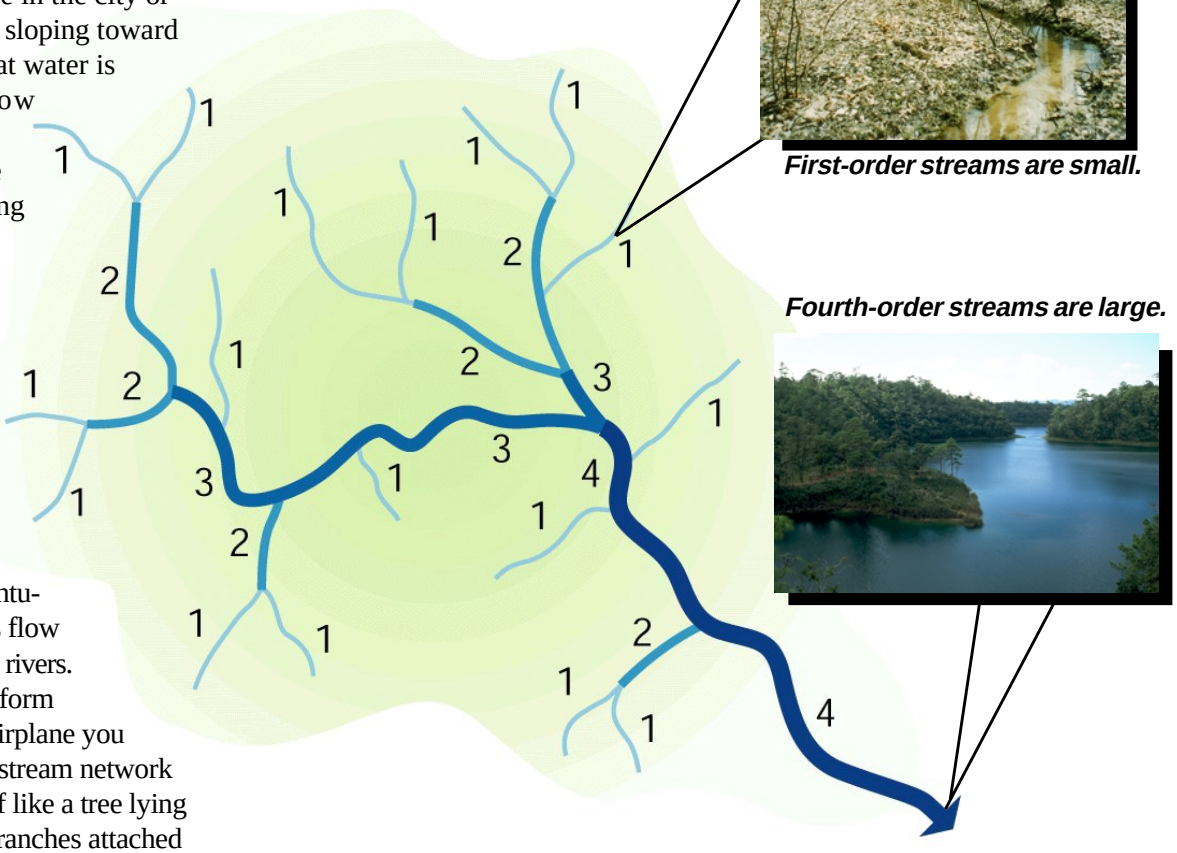
Whatzzzzup-stream?

Water goes with the flow

Raise your hand if you live in a watershed! Do you all have your hands raised? Great! Because we all live in a watershed. No matter whether you live in the city or the country, our land is sloping toward the sea. This means that water is always trying to flow downhill to the sea. (Gravity at work!) The next time you are standing next to a stream, think about whatzzzzup-stream. Has this water flowed past another neighborhood like yours? A forest? A farm?

When water falls as rain or snow, it quickly runs together into small streams. Eventually these small streams flow into each other and form rivers. Rivers, in turn, meet to form larger rivers. From an airplane you can easily see how this stream network is organized. It's kind of like a tree lying on its side with many branches attached to a main trunk.

Pick out any location in any stream and all the land that contributes water up to that point is called its *drainage basin* or *watershed*. The watershed of a small stream—one you can cross wearing only rubber boots—might be only a couple of acres in size. On the other hand, if you need fishing waders to get across, the stream is probably draining a square mile or more of land. If scuba gear is required, you know the stream has a large drainage area. Knowing where your water comes from is important, especially if any problems occur upstream. You probably would not want to head out to your favorite swimming hole if that morning a gasoline truck spilled some of its load upstream.



First-order streams are small.

Fourth-order streams are large.

Streams are ordered according to their position in the watershed. The smallest streams have a "1" and are called "first-order" streams.

Hydrologists (scientists who study the movement of water) have devised a system for classifying the position of streams in a watershed. The uppermost channels with no tributaries are designated first-order streams. A second-order stream is formed when two first-order streams meet. Third-order streams are created when two second-order streams join, and so on. A network is formed by all the streams in the watershed, and people can easily see how they connect.

Like nesting dolls, small watersheds are part of larger watersheds, which in turn are part of even larger watersheds. To help keep everything organized, the U.S. Geological Survey developed a system to keep track of all the different scales of watersheds. There are four basic sizes of watersheds in their system. The largest are known