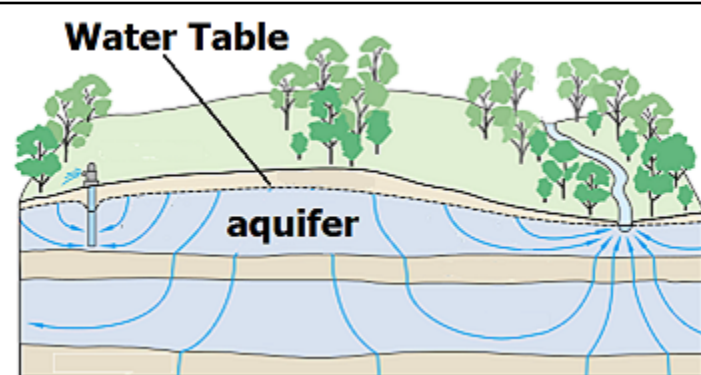
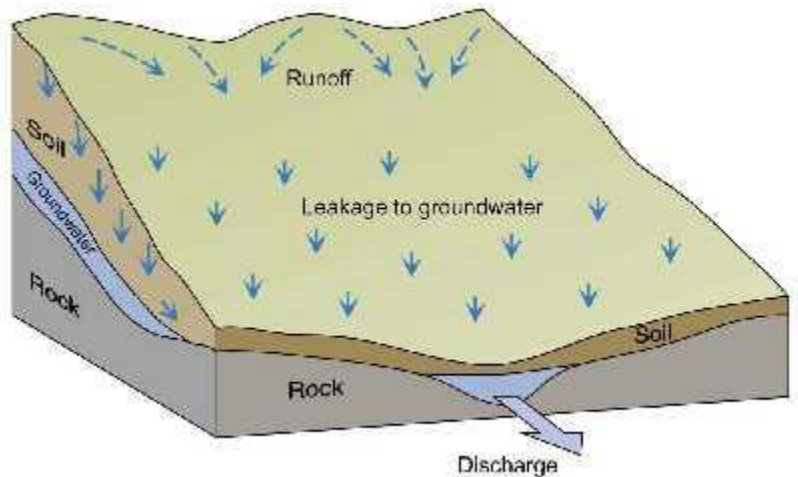


Water Cycle Enhancements!

Runoff and Groundwater

Many people probably have an overly-simplified idea that precipitation falls on the land, flows over land (runoff), and runs into rivers, which then empty into the oceans. That is overly simplified. Still, it is true that much of the water in rivers comes directly from runoff from the land surface, which is defined as surface runoff.

Groundwater is used for drinking water by more than 50 percent of the people in the United States, including almost everyone who lives in rural areas. The largest use for groundwater is to irrigate crops.



Aquifer

Aquifers are typically made up of gravel, sand, sandstone, or fractured rock, like limestone. Water can move through these materials because they have large connected spaces that make them **permeable**. The speed at which groundwater flows depends on the size of the spaces in the soil or rock and how well the spaces are connected. Water in aquifers is brought to the surface naturally through a spring or can be discharged into lakes and streams. Groundwater can also be extracted through a well drilled into the aquifer.

Permeable and Impermeable Rock

Permeable rock is rock that water can travel through, like gravel. Impermeable rock will not let water travel through it. It is solid and has no breaks or cracks in it.

Estuary

Estuaries and their surrounding wetlands are bodies of water usually found where rivers meet the sea. Estuaries are home to unique plant and animal communities that have adapted to brackish water—a mixture of fresh water draining from the land and salty seawater.

Percolation

Percolation is the process of a liquid slowly passing through a filter. Percolation happens when liquid is strained through a filter, like when someone makes coffee. In geology, percolation refers to filtration of water through soil and permeable rocks. The water flows to recharge the groundwater in the water table and aquifers.