



Central Arizona Project Presents:

AQUIFERS

Why Are They Important?

All living things on earth need water to live. People need water for drinking, business and agriculture and get it from two sources.

One water source is called surface water because it is found above ground in lakes and rivers. Surface water is important because it is replenished every year through rainfall and snowmelt.

The other source is called groundwater because it is found underground where it is naturally stored in aquifers. Aquifers are layers of sand and gravel that can hold a lot of water. When it rains, water soaks far down into the soil and, if there is enough rain and snow, the water can slowly fill the aquifers.

Riparian plants and trees use water in aquifers to live and absorb it through their roots. People use groundwater by pumping it up through wells. In a desert, it takes many years for nature to fill an aquifer and little time for people to deplete it.

People in Arizona have depleted many aquifers. When water is pumped from an aquifer faster than nature can replenish, the water table drops and subsidence happens. Subsidence is the process of the layers of the aquifer compressing. This causes the ground above to settle and crack, sometimes damaging roads and buildings. To prevent subsidence, people can use surface water instead of groundwater.

CAP replenishes aquifers through a process called recharge. CAP constructs and manages recharge projects where water is allowed to flood an area of land and percolate down through the soil where it is stored in an aquifer.

Central Arizona Project can help Arizonans conserve groundwater by importing water from the Colorado River. In central and southern Arizona, people use CAP water for drinking, farming and business.

