



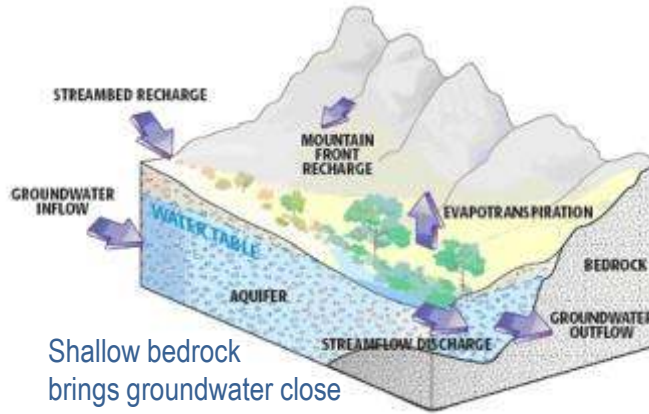
# Living in the Watershed: protecting shallow groundwater

## A Rich Landscape

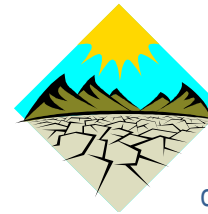
Shallow groundwater sustains lush, rare riparian habitat, like we see in the Cienega Watershed in Cienega Creek, Davidson Canyon and Empire Gulch.



Davidson Canyon flowing north toward Tucson and Cienega Creek

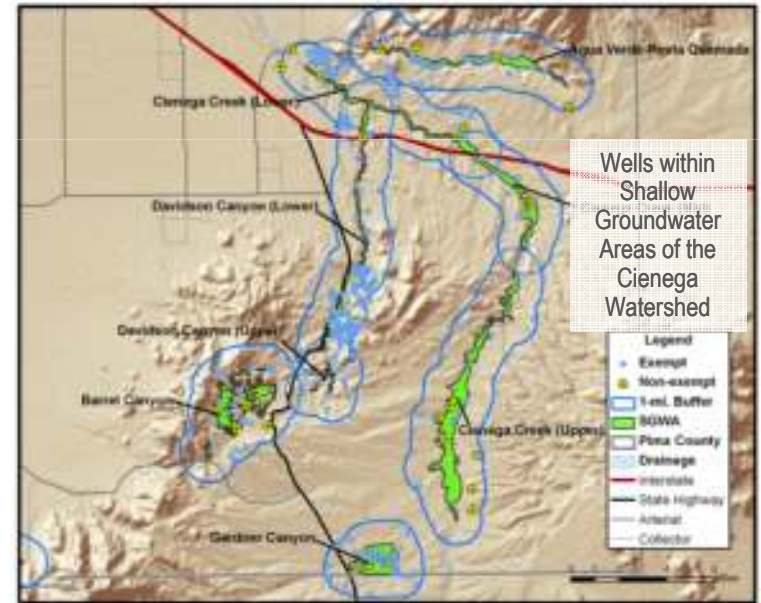


Shallow bedrock brings groundwater close to the surface, creating a shallow aquifer.

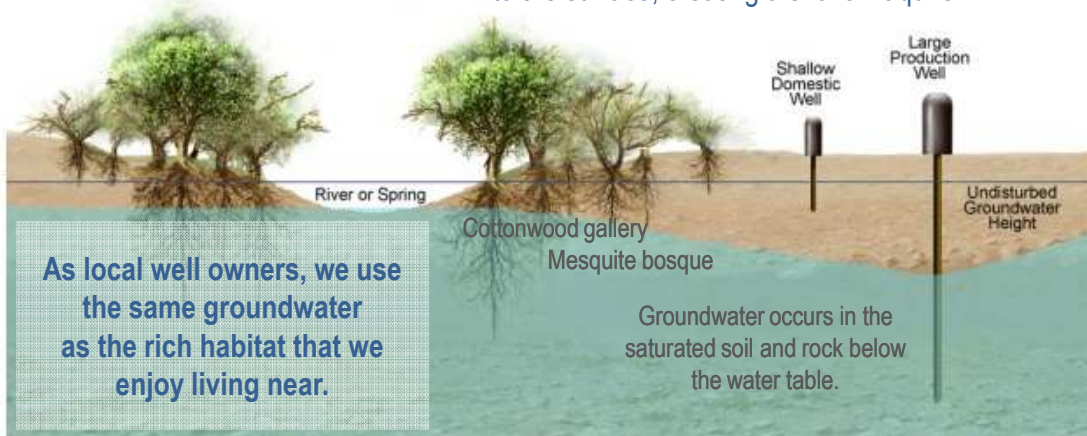


## Drought and Pumping Concerns

Local drought conditions are severe and are impacting the survival of aquatic species and causing well owners to truck in water or drill deeper.



A Pima Association of Governments study found that the number of wells and amount pumped from shallow groundwater areas has increased each decade.



As local well owners, we use the same groundwater as the rich habitat that we enjoy living near.

What can you do? →

# Rainwater harvesting makes the difference!



BEFORE

One rock dams increase soil moisture. Our Youth Engaged Stewards restored this grasslands in Summer of 2014.



AFTER



Earthworks trainings held by CWP and partners help to restore erosion and prevent the dewatering of our shallow aquifers.



Charles Cole and Carol Townsend, who live outside water utility service areas, say rainfall has provided all of their water requirements since 2005. It is stored in a large, partially hidden cistern, complete with a filtration and water pressure system.

*Harvesting rainwater on your landscape means collecting rain in containers or contouring the land to capture runoff for beneficial use. Using this water will reduce your need to irrigate with pumped groundwater.*

*Stormwater earthworks in your landscape help to slow runoff and increase stormwater infiltration to replenish the shallow groundwater.*

*Some residents have chosen to install large rainwater harvesting cisterns instead of drilling deeper wells or hauling in imported water. They have found it to be similar to the price of a new well and to still supply enough water for the household.*



## CIENEGA WATERSHED PARTNERSHIP

*Cienega means 'wetlands'. In a desert landscape where most riparian areas are threatened, we work to preserve the Cienega Creek watershed into perpetuity.*

*The Cienega Watershed Partnership facilitates cooperative actions that steward the natural and cultural resources of the Cienega Watershed while enabling sustainable human use. CWP works with all stakeholders who thrive in this ecosystem. We offer youth stewardship programs, science and land management coordination, and restoration efforts.*

- cienega.org -

