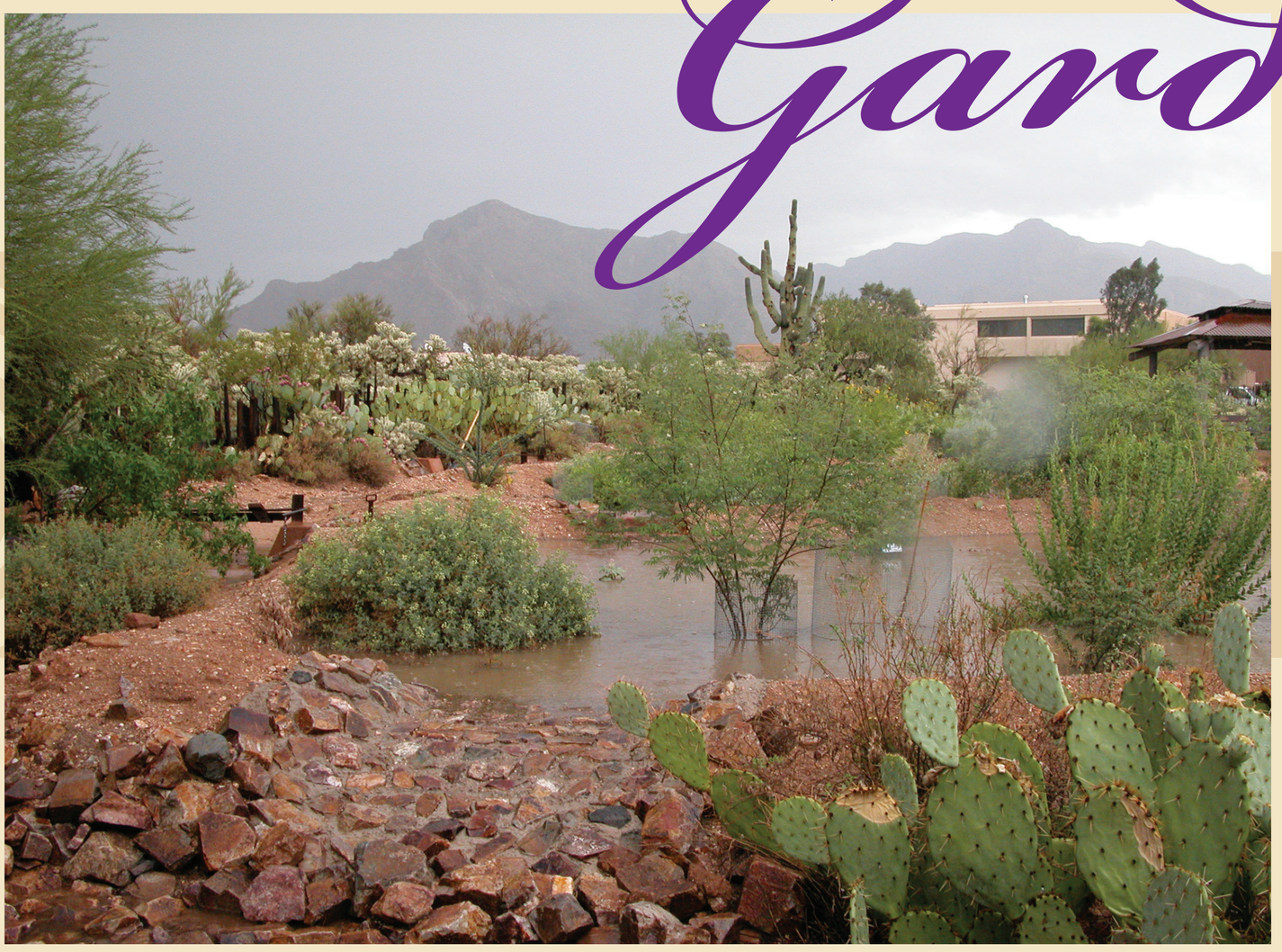
Welcome to Tohono Chul Park's

SIN AGUA *Garden*



Jekyll and Hyde Plants

The Garden's native and adapted plants are so tolerant of alternating drought and flood conditions you could say they have split personalities. Some, though, are less tolerant of "wet feet" and are grown on the tops or sides of the berms so they won't stand in water when the plots are full.

It's true. "Sin agua" is Spanish for "without water." But the SIN AGUA GARDEN actually models the efficient and sustainable use of renewable water.

- It channels rainwater runoff from the nearby Education Center parking lot to demonstrate water harvesting.
- It uses native and adapted plants to create a landscape that uses little or no supplemental groundwater.

If you are lucky enough to visit when it's raining, you'll see first-hand how the Garden works:

- Berms—contoured mounds of earth—define each plot and contain or direct the flow of surface runoff, allowing sediments to settle and water to soak into the ground.
- Manually-operated gates in the channel along the Garden's northern border direct water to the driest plots first and carefully calculated slopes permit surface water to flow from one plot to the next. Excess runoff is directed into the surrounding natural desert.

So, how much water does this "garden without water" harvest?

- An average annual rainfall of 12 inches yields 37,000 cubic feet of runoff—equivalent to 40 inches of rain.
- The Garden stores approximately 8,000 cubic feet of water at one time and a full plot (8–9 inches of water) takes from 5–6 hours to an entire day to empty.

Our Water Footprint

Tucson is located in the basin and range, a region characterized by sloping valleys surrounded by steep mountains. The solid bedrock of the mountains allows rainwater to flow downhill and filter into porous valley sediments of sand and gravel—our natural groundwater aquifers. However, most of the groundwater beneath Tucson was deposited 10,000 years ago when the climate was much wetter.

Southern Arizona's distinctive basin and range landscape

Until the 1990s, Tucson's groundwater was pumped so heavily, the water table dropped significantly (200 feet in central Tucson), causing areas of land to sink and reducing or eliminating the surface flow of the Santa Cruz and San Pedro Rivers.

Today we depend on water from a blend of sources, from groundwater deposited by rain that fell on Tucson when wooly mammoths roamed to snow that melted last spring somewhere in the Colorado River watershed and delivered via the Central Arizona Project canal.

The Central Arizona Project (CAP) canal snakes its way through the desert to Tucson

rain cloud symbol

Living sustainably means living within our water means, no longer dependent on nonrenewable or imported sources. What is your personal "water footprint?" Keep in mind that your footprint includes the water you consume indirectly, too—the water used to produce any products or services you use, as well as the water you drink or bathe in.

Use the calculator to check out *your* water footprint at www.h2oconserve.org

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