

Historic Cienega in Decline: Del Rio Springs

By Gary Beverly

November, 1863: US Army Captain Pishon established a fort in Arizona on Cienega Creek because "... there is good water, firewood, ...hay, ... deer, antelope, turkey and other varieties of game." This cienega, a wet, marshy area on the edge of grassland where groundwater bubbles to the surface, was Del Rio Springs, near Hwy 89 between Chino and Paulden.

Del Rio Springs now produces only a fourth of its original flow. Arizona Department of Water Resources groundwater models estimate that the springs will be completely dry by 2025.

Just a fraction of precipitation on the mountains surrounding Prescott percolates into the aquifers of the Little Chino Sub-basin. This groundwater flows north, downhill, passing beneath Chino Valley. A portion surfaces at Del Rio Springs while the balance emerges as part of the Verde River base flow. The Tri-Cities area water supply relies on groundwater pumped from aquifers below Chino Valley, up gradient from Del Rio Springs. Thus we capture and divert water naturally destined for the springs and the Verde River.

Because we continue to pump far more water than is recharged (overdraft), we are depleting stored groundwater reserves, the same as if you spent more money than you earned and depended on your savings account for the difference. The result is that groundwater levels throughout Chino Valley and the flow from Del Rio Springs continue their historical decline.

The drying of Del Rio Springs is a direct result of several decades of overdraft. Achieving Safe Yield in the Prescott Active Management Area will, over time, halt the decline in flow from Del Rio Springs and into the upper Verde River.

Drying up Del Rio Springs will destroy an icon of Arizona history. In 1863, Ft Whipple was established at Del Rio, serving as the first Territorial Capitol until moving to Prescott in 1864. Homesteaders farmed Del Rio until it was purchased by the City of Prescott in 1900 as a municipal water supply. Prescott pumped spring water 20 miles to town, ending in 1910. Water from Del Rio Springs supported the development of Northern Arizona. For decades the Santa Fe Railroad hauled tank cars of Del Rio water to Seligman, Ash Fork, Williams, Winslow, and the south rim of the Grand Canyon. Del Rio hay and grain fed the dude and working stock in the Grand Canyon and supplied winter pasture into the 1950s. Dairy products from Del Rio Ranch fed Fred Harvey's tourist enterprises along the Santa Fe rail line from Chicago to Los Angeles.

Drying up Del Rio Springs will diminish our wildlife. During the last two breeding seasons, a pair of desert nesting bald eagles successfully raised three chicks in a tall cottonwood tree nurtured by the springs. Neighboring cottonwoods support a regional great blue heron breeding area of a dozen nests. Many owls and other raptors nest nearby. Ecologists have found unique, endemic dragonflies at the springs. Pronghorn are abundant. Historically, Del Rio Springs filled four miles of Little Chino Creek before joining Big Chino Wash to form the headwaters of the Verde River (see photos and graphs at www.cwagaz.org). That perennial riparian habitat is now gone, destroyed by groundwater mining.

The drying of Del Rio Springs by groundwater mining is a glimpse into the future of the upper Verde River. Planned groundwater mining projects in the Big Chino Valley will intercept groundwater destined for the river, just as pumping in Chino Valley captures water from Del Rio Springs. Unmitigated groundwater mining in the Big Chino Valley will eventually turn the first 25 miles of the upper Verde River into a dry wash, destroying some of the finest surviving riparian habitat in the southwest, exactly as is now occurring at Del Rio Springs.

Although it's easy to overlook this slowly unfolding disaster, we should instead recognize that we can solve this problem and comfortably coexist with living springs and rivers. The drying of Del Rio Springs is a clear and present reminder that, unless we better manage our groundwater resources and consume less water, unless we develop a sustainable water supply, unless we care for our water dependent natural resources, we and our children will all suffer the loss.

Next year is the 150th anniversary of Del Rio Springs. Let's begin now to work on a birthday present by planning to sustain the springs, to mitigate the damage, and to preserve an icon of Arizona history.