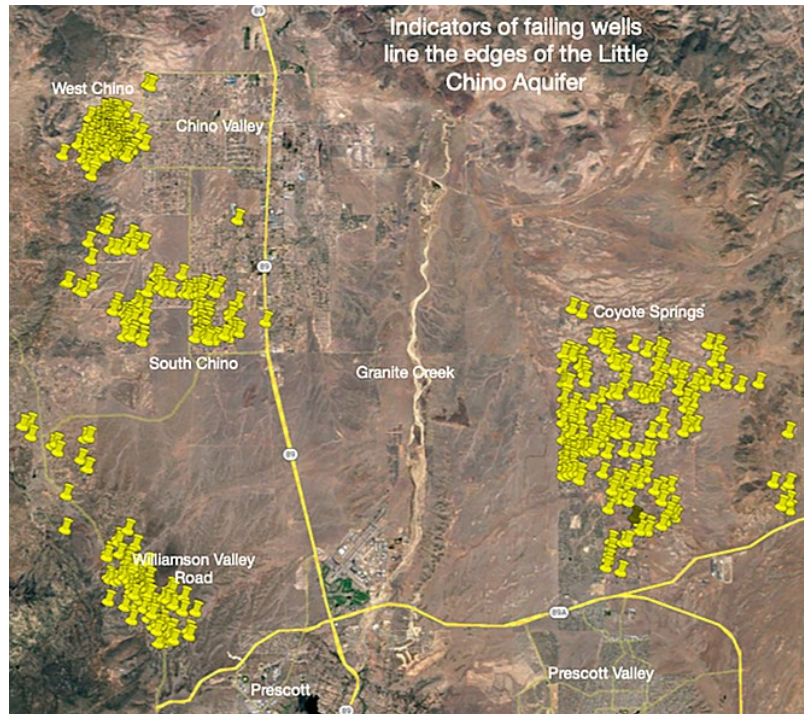


Talk of the Town: Are domestic wells draining our aquifer?

GARY BEVERLY Special to the Courier
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Are domestic wells draining our aquifer? No.

In the Prescott Active Management Area (PrAMA), family homes in rural areas that are not served by a water utility must rely on a small domestic well. The Arizona Department of Water Resources (ADWR) calls these family wells “exempt wells,” meaning that they are not required to report annual water use.

ADWR management plans do not mention and fail to protect these families. ADWR is apparently unaware that about 500 family wells on the edges of the Little Chino aquifer in the PrAMA are now failing, an early symptom of excessive groundwater pumping. Worse, one local water manager has historically blamed family wells for the groundwater overdraft, claiming the wells are unregulated. This is an attempt to deflect blame from the true culprits by scapegoating.

There are approximately 13,000 domestic wells in the PrAMA. According to ADWR estimates, these wells serve 19% of the population while pumping 14% of the total, indicating that domestic wells are not excessive water users. Municipal water utilities pump about 75%. We should focus management efforts on the major pumpers. Domestic (“exempt”) wells are regulated and limited to pumping 35 gallons per minute (gpm) and cannot irrigate more than two acres. A typical family well pumps 5 to 10

gpm and waters a couple of flowerbeds. Studies show that the amount of water used by a domestic family well is similar to the amount a family in Prescott uses. There are huge gaps in ADWR groundwater pumping data. In 87% of the state, no wells, even very large irrigation wells, are required to report pumping. Big Agriculture, using about 75% of the state's water, resists any legislative effort to measure irrigation pumping. Exempt well owners are similarly opposed, but unmetered family wells are a drop in the bucket. It is true that you can't manage what you don't measure. The first priority is to meter large irrigation wells.

Why so many domestic wells? Yavapai County reduced the minimum parcel size to two acres; then the Arizona Legislature redefined a subdivision as a parcel split into more than five lots (previously three lots). These changes fueled growth by creating an enormous number of parcels with water rights. Family wells are not the problem but are instead the result of pro-development land use policies. Every family in the PrAMA has the same right to a clean and reliable water supply.

Some believe that a big problem with family wells is that they use septic tanks. Groundwater recharge from septic tanks is highly variable, but is generally small. Homes on municipal sewer are not much better because lots of treated wastewater is used for irrigating golf courses and other landscapes and is not recharged. The remaining recharged water is then used to support additional growth, so the municipal recharge does not benefit the aquifer. Wastewater recharge is a good thing, but neither the cities nor septic tanks are very effective.

The Citizens Water Advocacy Group (CWAG) has said this many times before, and here it is again: The PrAMA is the worst performing AMA in the state, the overdraft is growing, water levels are falling, Del Rio Springs is drying, the Verde River is shrinking, and domestic wells are now failing on the edges of the aquifer — an early warning for all of us.

We all share the same aquifer and the same problem. Scapegoating, finger pointing and competition for more water cannot be a solution. Until the cities and county begin to cooperate on regional water planning, we will continue to drain the aquifer. Family wells on the edges are the first to pay the price.

I will discuss "Domestic Wells: Impacts and Threats" when CWAG meets on April 13. Details under "Next Event" at cwagaz.org.

Gary Beverly, Ph.D., is a member of the CWAG Executive Committee and a retired business owner working to protect the Verde River.