

Water for Wildlife

By Evan Lautzenheiser, Wildlife Manager AZGFD

It shouldn't come as a surprise that Arizona is a dry state, especially if you live in one of Arizona's largest population centers. It is true, most of Arizona is comprised of low desert or Sonoran Desert habitat types. But if you think of Arizona's high country, you probably don't think that water, especially year-round water, is limited for wildlife. We tend to think that when we're surrounded by big, tall Ponderosas or standing in a stand of aspens that there has to be a water source nearby...a creek, a pond, something. Right? Wrong. There are huge tracks of land in the high country, particularly along the Mogollon Rim, that would not have a year-long water source unless we people created them. There are numerous types of constructed waters, with probably even more labels to describe them. These could include trick tanks, guzzlers, spring boxes, dirt tanks, stock tanks, catch basins, lakes, ponds, etcetera. Some were developed for livestock; some were developed for water storage or flood control or recreation and some were developed specifically for our wildlife.

I began my career as a wildlife manager (WM) with the Arizona Game and Fish Department over 10 years ago and could honestly say that, at that point, I didn't know much about wildlife waters. I graduated from Humboldt State University with a Bachelor's degree in Wildlife Management so I knew that wildlife waters were a tool in the wildlife biologist's tool box but it was one I had never needed to use. I came to Arizona from the northern coast of California where water availability was not a problem. With an average annual rainfall of 40 inches, water storage or water for wildlife was not exactly a management priority. Once I got settled in Arizona, I was fortunate to be stationed in a district that was in the high country along the Mogollon Rim. I was responsible for all management activities for Game Management Unit (GMU) 4B, including, but not limited to, maintaining and monitoring all of the wildlife water catchments. Believe me when I say that I went from not knowing a lot about wildlife waters to becoming an expert almost overnight, it was true! GMU 4B has 34 different waters managed for wildlife use...some working, some in different levels of disrepair and some non-operational. Most of these were built between the early 1950's through the 1970's. Some were constructed by agencies, such as the US Forest Service or by the Youth Conservation Corps with funding provided by federal or state agencies. Most were constructed to help provide a year-round water supply for deer and other game species and were comprised of a storage capacity of approximately 2000 gallons each and that is where the problem began. Since these catchments were built, we have enjoyed a significant increase in the number and distribution of the Rocky Mountain elk in Arizona. Elk require a lot more water than their smaller counterparts, especially around the time of giving birth and when temperatures start

to rise before our monsoon season begins. More elk, in more areas, with no change in water capacity resulted in managers having to haul tens of thousands of water a year to maintain water availability for wildlife.

So, we have identified the problem...what is the solution? Well, thank goodness that this isn't really that difficult; simply increase the storage capacity to meet the demand. Arizona Game and Fish engineers figure that a storage capacity increase to 10,000 gallons will be sufficient to meet the demand by wildlife in this habitat type. How do you go from 2,000 gallons to 10,000 gallons? Arizona Game and Fish Department's current design incorporates four 2,500-gallon storage tanks, plumed together and buried under the catch apron resulting in a lot of water in a pretty tight space. The water that is stored is then available to wildlife through a drinker that is buried a short distance from the storage tanks and apron.

Ok, so we have the design, how are we going to pay for it? Currently, a standard renovated water catchment can cost around \$70,000. Where does a wildlife manager working in GMU 4B get that kind of funding? Actually, the process is already in place and working throughout the state to fund projects just like these; real projects on the ground to benefit wildlife. It's called the Habitat Partnership Committee (HPC). Through a grant submittal process through the local HPC committee, I was able to receive funding for water catchment renovations in GMU 4B. The funding originates from the auctions of big game tags by non-profit wildlife organizations such as the Arizona Elk Society, Arizona Mule Deer foundation and others. These dollars raised are then available to go towards projects that benefit wildlife in the state.

Of the 34 wildlife waters in GMU 4B, I have renovated five to date and currently have an additional five funded for renovation. These new and improved wildlife waters will not only save countless man hours of maintenance and thousands of gallons of water hauling but, most importantly, will provide a year-round water source for numerous species of wildlife from elk and mule deer to Red tailed hawks to even bats. Now that gives you a good feeling at the end of the day.