

Water in Southern New Mexico — an ongoing controversy

By Jerri Spoehel

Recent thunderstorms left many puddles in local potholes. One might observe lizards and toads, rabbits and roadrunners having a drink or taking a bath. Technically these pools could be considered wetlands, "a place where water and land meet," although temporary.

Of course, the only really large wetland we have in New Mexico is the **Bosque del Apache**, the National Wildlife Refuge just south of **Socorro**. There the riparian habitat along nine miles of the **Rio Grande** sustains a wide variety of life.

Further south in **Las Cruces**, more thought goes to long term sources of water than to temporary wetlands. Ground water from wells is used for public drinking water suppliers. In Las Cruces, 31 wells have been dug within the city, supplying each resident about 230 gallons of water per day. New Mexico State University has its own water supply, but contracts with the city for purification. The **Rio Grande** is the only surface water in the area. It supplies water for agricultural irrigation and also replenishes the ground water, but it is not at this moment being used for city drinking water.

Water Rights Aren't Wet

Ownership of the supply of water is critical to life in New Mexico. "For over a thousand years inhabitants of New Mexico have been regulating their water supply," writes Linda G. Harris in *New Mexico Water Rights*. The ruins of ancient irrigation canals are reminders that even prehistoric Indians controlled their water resources, she continues.

Throughout the Southwest, New Mexico has set the standard for water rights law. In 1848, New Mexico became a territory, and by 1851 the Territorial Legislature began establishing water laws. Now the State Engineer Office (SEO) has been mandated to oversee water rights administration and is the caretaker of the state's water rights. Those who come from New York or Indiana are sometimes confused by water rights here. In the East, water is usually tied to the land; not so here. A water right is considered property and can be separated from the land. It pertains to only the right to use the water and not the water itself.

Incidentally, if you want the real wet stuff and are considering the purchase of land outside the City of Las Cruces, you might prudently tie in a clause that you will buy it contingent on proof a well on the property would yield so many gallons per minute. Some people have had a house built and then discovered they had no water.

Will Conservation Help Save Water?

Many people come to this area because the air is dry. Throughout New Mexico, the precipitation varies from 7 to 20 inches and averages about 14 inches a year, making it the third most arid state in the nation. Opinions about water change. Just a few years ago a local Garden Club went to city government, pleading for conservation. The members were told there was no point to save water within the city because most of the water here was used by agriculture. The lead story in the *Las Cruces Bulletin* for July 6, 1996, asked "What drought? . . . Area awash in water so far." Then water running in the gutter became a frequent topic of discussion. And recently, watering yards on Tuesdays or Thursdays for conservation has been a heated topic. Times do change.

So should water conservation be a law? One reason to make it so is the state can deny the digging of new city wells if no conservation plan is in place. Some residents voice other feelings. Janet McKimpson, president and CEO of a consulting firm, comments strongly, "This is the **Chihuahuan desert**. I can't understand why people move here and want to make it look just like home in Ohio."

McKimpson takes a very unusual view, saying, "I'm not in favor of conservation. The present population is

being asked to conserve water so that more people can move in and use more water." Instead, she believes in limiting development. Stopping growth is not a popular concept, she knows. "Those screaming the loudest would be the developers. But how long will they be here? Do the largest ones even live in the county? One just left the area and moved to Montana," she continues.

"Some contractors also say to conserve. Then they will have more water and they can build more houses for more people. All efforts aimed at increased population will, in the end, use more water. There's no limit on greed, but there is a limit on the amount of water. The complacency of the residents will result in exactly what the citizens deserve: No water. Then those in real estate will not find many eager buyers in the area if there is no water. Somewhere down the line people will learn they can't drink bucks," she admonishes.

McKimpson does believe in xeriscaping. That doesn't mean you have to fill your yard completely with volcanic rock. Beavertail and barrel cactus, ocotillo, desert marigold, sotol, and creosote will grow, and won't add to humidity, she says. She also believes in limiting development of residential outdoor swimming pools, and allowing only indoor pools, which would considerably slow the evaporation rate and save water.

Agriculture — Pecans Are Thirsty

It's agriculture which accounts for well over 80 percent of the water consumed in the state. "In this area, 93 percent of the Rio Grande goes to agriculture," says Kevin Bixby, executive director of the Southwest Environmental Center. "The **Elephant Butte** Irrigation District (EBID) is responsible for agriculture getting enough water," affirms Michael Riley, its director of special projects.

Elephant Butte Dam, completed in 1916, created the world's largest man-made reservoir. The EBID is a 130,000 acre irrigation project stretching from the dam near **Truth or Consequences** to the Texas border. It contains 600 miles of canals and laterals, and 400 miles of drains. To determine how the water is distributed, at the beginning of the year runoff is calculated from the estimate of forecast snowfall. That's added to what is already in the reservoir. Then 57 percent goes to EBID; 43 percent goes to El Paso Water Improvement District #1. Mexico gets the first 60,000 acre feet, a rather small amount, as part of a treaty alliance, but no one has ever decided exactly where that water comes from.

Today agriculture is the sector receiving increased attention because there is a potential for large savings of water. However, it's a very complex issue, little understood by the general population and policy makers, according to Thomas Bahr, director of the New Mexico Water Resources Research Institute. Many possibilities are discussed, such as changing from overhead sprinklers to flood irrigation or to buried drip irrigation. There's also talk of reinjecting water or putting concrete liners in the ditches. Another possibility is use of a soil potentiometer. It looks like a sugar cube with electrodes coming off of it. It is put at whatever depth one wants to monitor, causing a very, very low current one can read. When there is no reading, there's no moisture . . . no water. One needs to irrigate then, not just because it is the second Friday.

Many farmers agree they could get by with less water, even for thirsty crops such as pecans, but they have no incentive to conserve. If there were a clear policy allowing an irrigator to market "saved water," there would be strong incentive to the farmer to become more efficient in irrigation practices. Currently, New Mexico has no such policy. A new system would require new management skills and constant attention and maintenance. But irrigators need more of an incentive than the warm fuzzy feeling that saving water is noble.

What's an Acequia?

People have been having water "discussions" for quite some time. Among the first groups were *acequias* or "ditch associations." Probably the one in longest continuous operation began in **Tularosa**. There, in 1862, a

group of seven families began setting up the distribution of water. Today it is also believed to be the only adjudicated system in New Mexico. (That means legal action has been taken to protect a water right and to ensure it is properly recognized. It's similar to a title search that guarantees proof of ownership of property.) The Tularosa Community Ditch Corporation is a nonprofit corporation which became official in 1909 - even before New Mexico became a state. Its mandate is to see that water goes from its source, which is a spring up in the mountains, to those who own water shares. The job of the association is to see that no one poaches water in the mountains. The disagreements among the Mescaleros, the ranchers and the farmers have now been resolved.

Reuben Morris, the ditch boss, who might be called a mayordomo elsewhere, has been on the job 21 years. He knows which gates to flip to regulate exactly where the water goes. The farmers have irrigation water from approximately April 1 to the end of September, depending on the weather. The Village gets the first 15 percent and then does its own purification, reports Camille Cunningham, bookkeeper for the group.

Media Attention — Water Sometimes Gets Center Stage.

Since water is an issue of great importance to everyone (although some people don't see it as very exciting), the League of Women Voters of Greater Las Cruces has been active in studying the topic for several years. One member still has four inches of paper in a "completed file." Water is also of concern on the national level. About a year ago, a live television broadcast arranged through the National League included a panel of experts to answer questions which were phoned in from around the country. Then participation took place at the state, and finally, the local levels. Protection of water and equitable use of water were discussed. The program created much awareness about water problems, reported Mary Thompson, who chaired the League's water study committee then. Las Cruces had the most participation of any place in the state, she noted, and the study later resulted in a forum about wellhead protection.

More recently, KRWG-TV broadcast a special program considering the water quality of the Rio Grande. Many questions were raised: how to protect the water supply from terrorist attack or pesticide accidents; about the safety of eating fish from the river; the need to manage watersheds; international treaty arrangements. Two panelists voiced very strong views. EBID's Riley urged, "Get the Bureau of Reclamation out of the picture. They don't have ownership of water; that's completely in error." He also made the reminder, "EBID facilities are private property. Those who walk or drive next to the channels for reasons other than agriculture are illegally trespassing. Swimming is not legal and is quite dangerous."

Bixby proclaimed his vision for the future of the river: "Remove the salt cedar and replace it with native growth; let the water flow all year around; stop the management of the banks and channel it as if it is meandering; plant new cottonwoods; let it be a haven for wildlife, clean for fish, and enjoyed by people; if there is a drought, have it shared by all water users."

Judges not Firearms

Bahr summarizes comments about water in New Mexico: "Water supplies are finite. But this doesn't mean that snow-melt from the mountains is going to cease, that large quantities of groundwater in storage are disappearing or that there is insufficient water for future growth. Rather, it means that as New Mexico communities continue to grow, they must undertake to more carefully manage water demand through such measures as conservation and water reuse. Equally important is to develop a better understanding of the quantity, quality and dependability of surface water and the relationships of surface supplies to groundwater. Most importantly, we must bridge the gap between our scientists and policy makers in order to develop effective policies."

Throughout the Southwest's history, few topics have generated more passion than water. Today battles are fought by lawyers with briefcases rather than farmers with six-guns. The issues are many and certainly changes will come. The chief agreement seems to be is that there are no simple solutions.