

Coping with the Urgent Shortfall Reality



Implications of USR for Agriculture and Agriculture's Contributions to the Hydrologic System - Lisa Robert, Assessment Payers Association of the Middle Rio Grande Conservancy District

Lisa Robert, says, "I'm a native of the MRG valley and I farm for the love of it. I just finished hauling in my second cut of hay. The tractor work cost me \$100, I sold \$60 worth of grass bales to a guy in the South Valley for his cows, and I put fifty-four bales of the best alfalfa I've ever produced into my barn for the winter. That's about as good as it gets for a shoestring aggie." Lisa is the former editor of the New Mexico Water Dialogue, and she keeps tabs on the Middle Rio Grande Conservancy District as a member of the Assessment Payers' Association, for which she edits a newsletter, the APA Watermark. Also, she recently published an article in the American Geologic Institute's magazine, Geotimes, entitled, "Hijacking the Rio Grande: Aquifer Mining in an Arid River Basin."

In the Middle Rio Grande, water credited to 'agriculture' has come to serve some pretty varied users. Where does agricultural water really go in our very unique valley and just who and what will feel the shock if its use is curtailed to meet a compact shortfall?

First and foremost, agricultural lands are of great consequence to the present hydrologic system. In the Rio Grande basin, there is a connection between water flowing on the surface and water underground. In its natural state, when the river was free to move back and forth across the valley, water seeped down to both the shallow and deep aquifers. In actual fact, as hydrologist John Shomaker has said, "The river requires to be held up by all that ground water."

But grave damage has been done to the Middle Rio Grande's watershed. Runoff doesn't percolate very well through pavement and concrete, and the basin's upland recharge zones are now wall-to-wall houses. At the bottom end, the river's annual high flows have long been curtailed, along with free access to its floodplain. Together these indignities have impaired the direct link between surface water and groundwater, and were it not for the artificial spreading of the river to the far edges of the floodplain through the local irrigation delivery system, 50% of the groundwater recharge to the Albuquerque basin would be lost. Where there are dirt ditches and irrigated fields, that fundamental connection is still being maintained.

In addition to replenishing the aquifer, agricultural water that leaks into the ground is drawn up by shallow wells throughout the floodplain. Every valley home with a domestic well and septic tank is dependent on agricultural water. Such uses are not distinguishable from the overall diversion of the Middle Rio Grande Conservancy District, and the state continues to issue permits for new wells without acknowledging where the water is coming from. Nor is there any means of controlling what is actually pumped from a domestic well—municipal and agricultural water use can be governed with rate increases and regulations, but domestic well use is not in any way constrained. A decrease in irrigated acreage in the valley, or even a reduced amount of water flowing through conservancy ditches, will impact the valley water table and thus the supply to domestic wells.

There will also be impacts to municipal pumping, which is already outstripping the ability of surface flow (in either the river or the ditches) to replace what is being withdrawn. A 2003 USGS map of groundwater declines

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in the Albuquerque area indicates there has already been a reversal in the direction of flow of groundwater away from the river and toward cones of depression created by municipal wells. To quote Dr. Shomaker once again: "It is the duty of the river to recharge groundwater, and it is very difficult to stop this administratively."

Perhaps a third of the region's irrigated acreage belongs to eight separate and sovereign Indian pueblos, six on the mainstem Rio Grande and two on the Rio Jemez. In addition, the Middle Rio Grande Conservancy District masks some seventy acequias or community ditches with priority dates as old as any in the state. Agriculture is integral to both Native American and Hispanic cultures, and to suppose otherwise is to be ignorant of New Mexico's unparalleled heritage. Rural values are interwoven here, even in the region's urban core. Corrales, Alameda, Los Ranchos, Duranes, Arenal, Atrisco, Pajarito, Los Padillas—all are remnant agricultural communities, built along historic waterways.

Those manmade streams run through the heart of Albuquerque, a braidwork of wild parks that other cities can only dream of having. A friend of mine once said of his ditch, the Harwood Lateral, which crosses a portion of the North Valley just west of 4th Street, "It's a dog walk, a cat's lair, a horse path, a bicycle lane, a birdwatch zone, a shady jogging run, a nature trail for preschool kids and seniors. There's a young woman who walks there regularly, bagging shards of glass as she goes. That speaks pretty eloquently of how the Harwood is cherished."

At a water conference in the southern part of the state some years ago, I heard environmental advocate Kevin Bixby talk about the contrasts between Elephant Butte Irrigation District and the MRGCD. How fortunate we are up here, he said, to have these lush green ribbons, stretching for 150 miles beside the river. There are millions of non-humans who would agree with Kevin. Over the years, I have kept a list of birds and other critters I've seen in and around my acreage north of Tomé. The varieties of birds include American kestrels, Cooper's hawks, golden eagles, meadow larks, roadrunners, pheasants, dove, quail, redwing blackbirds, grackles, kingbirds, kingfishers, egrets, blue herons, night herons, ibis, curlews, ducks, sandhill cranes, snow geese and Canadas, to name but a few. The same landscape supports toads and frogs and snakes, raccoons, water rats, skunks, ground squirrels, pocket gophers, prairie dogs, voles, field mice and even a few beavers that migrate up the drainage ditch from the bosque. There are coyotes, of course, and I've even seen a couple of foxes on Tomé Hill. All of these Middle Rio Grande citizens will suffer if there is less water.

To those who would dismiss aesthetics as a far-removed reason not to pilfer water from agriculture in the MRG, I caution you to think again. Economist Larry Swanson, head of the Regional Economy Program at the O'Connor Center for the Rocky Mountain West in Missoula Montana, offers this little piece of wisdom: "Twenty years ago, they liked to say 'you can't eat the scenery.' But now the scenery--the environment surrounding your town--has become the setting for your economy. The setting is the reason the economy is here."

Agriculture was the middle valley's first industry, and it flourishes still. You can buy locally produced grains and nuts, every sort of vegetable and fruit, herbs, sod, bedding plants, flowers and trees, native seed varieties, honey, milk, butter, yogurt, eggs, meat and poultry, wine, and even champagne. The

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region's high-dollar dairy and horse industries depend on hay raised in the Rio Grande valley, and here I must put in a good word for that much-maligned crop, alfalfa. People tell you it needs worlds of water. It does not. I water mine only four or five times a year--one irrigation for each cut of hay. Show me a lawn that can survive that. Here's another thing worth thinking about. In Canada and Europe, researchers are using alfalfa to remove high concentrations of nitrates from soil and water. In the septic-tank-infested Rio Grande valley, maybe the fact that our groundwater is still drinkable is owed to the floodplain's two most prevalent crops: cottonwoods and alfalfa.

You will have to rely on others to put dollar signs on the agricultural ripple effects of failing to meet the Rio Grande Compact; I'm not a numbers kind of person. What I can tell you is that the burden will fall on good, hard-working people like Lester Paris, who at eighty still does my custom tractor work, and Ken and Margaret Wright, whose parts business keeps swathers and side-discharge rakes and sickle-bar mowers running throughout Valencia and Socorro Counties. It will hurt the folks at Old Mill and Chical Haystack who sell chicks and seed and bailing wire; it will impact mechanics, and field hands, and conservancy equipment operators, and 4-H kids, and farriers, and sale barn people, and bankers, and bureaucrats. These aren't millionaires involved in heartless, faceless agro-business. They are my neighbors, and yours.

Finally, I was asked by John Carangelo, whom many of you know as an acequia spokesman and head of the Socorro Soil and Water Conservation District, to remind you that when agriculture is sacrificed, we nullify the promises made to Native Americans, and the promises made in the Treaty of Guadalupe Hidalgo, and the promises made in New Mexico's own constitution and body of law. Prior rights are the foundation--the setting, if you will--for the Middle Rio Grande's economy and its enchantment, the lifeline to its ecosystem and its aquifer. There is only so much water. If we continue to divide it, and divide it, and divide it, soon not one of us will have enough.