



Water 101: Abeyta Settlement explained

A detailed look at \$150M agreement

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Palemòn Martinez stands atop the head gate where the Acequia Madre del Rio Lucero y Arroyo Seco crosses El Salto Road. Since 1969, Martinez, 80, has been involved in a dispute with Taos Pueblo over how much water should flow through this ditch — one of many prolonged quarrels over water that may finally be coming to an end.

After more than 23 years of negotiations, the Abeyta Water Rights Settlement is entering the home stretch. The deal, worked out between acequia users, Taos Pueblo, the town of Taos and a handful of domestic water providers, is being hailed as a long-term solution to myriad arguments over water in the Taos Valley.

To reach an accord, the parties involved came up with creative ways to shuffle water — from the stream bed to 1,000 feet underground; from 1,000 feet underground back to the surface; and from west to east across the Continental Divide — all in an effort to keep everyone from Arroyo Seco to El Paso whole.

A draft of the Abeyta settlement was finished in 2006 and sent to Washington, D.C., for authorization and funding. Congress approved a bill that included the Abeyta settlement in 2008. It was signed by President Barack Obama a week later. All told, about \$150 million in taxpayer funds — both federal and state — will be set aside to make the agreement a reality.

Those involved in the settlement say the gravity-defying water shuffle was the only way to satisfy the needs of existing water users while preserving traditional uses and preparing for future growth. A small chorus of critics, meanwhile, question whether the settlement takes into account the welfare of the community at large.

Aboriginal right

In 1969, the New Mexico Office of the State Engineer was around Taos to determine how much water was in the immediate valley and to find out who owned what.

Within a few years, the State Engineer managed to calculate what water was being used by acequia parciantes and other non-Indian surface water rights holders. But because the Pueblo's water rights are federally administered, it wasn't as simple to quantify the tribe's claims.

In 1989, Taos Pueblo announced it was claiming a right to 7,883 acre-feet of water for irrigation each year — about 2.6 billion gallons. An acre-foot equals 325,851 gallons and is a standard unit used to measure large amounts of water.

New Mexico water law considers the Pueblo's claim an "aboriginal right." As such, the Pueblo could essentially assert a right to all of the water coming from the Rio Lucero and Rio Pueblo de Taos, leaving other users downstream dry.

Rather than suffer through unending and expensive litigation to sort things out between the Pueblo and its non-Indian neighbors, the recently formed Taos Valley Acequia Association sent a letter to Taos Pueblo in 1989 proposing a negotiation. The Pueblo agreed, hoping to avoid the uncertainty inherent in a lawsuit.

The basic purpose of the negotiations was to convince the Pueblo to refrain from demanding its full water rights. In return, other parties would make concessions that would protect the interests of the tribe. The settlement sets up a way for the Pueblo to acquire additional water rights to fulfill its claim without jeopardizing nearby water users.

In all, the Pueblo stands to receive about \$88 million in federal funds as part of the settlement. The money is to be used for:

- A “water rights acquisition program” that will allow the Pueblo to buy future water rights;
- Rehabilitation and construction of water and wastewater systems, as well as the development of a new well system;
- Construction of a “Buffalo Pasture Recharge Project” meant to restore the Buffalo Pasture wetlands;
- Staff to oversee the implementation of these programs.

Gilbert Suazo, current Taos Pueblo lieutenant governor, has long been involved in the Abeyta negotiations. He says the dollar amount set aside for the Pueblo doesn’t really reflect the needs on the ground. “If [Taos Pueblo] were to tally up all the needs that we have for improving our water infrastructure, it would amount to a whole lot more money,” Suazo says. “The amount of settlement money has more to do with what Congress is willing to approve.”

For Taos Pueblo, one of the most important benefits of the settlement is the protection of its “Buffalo Pasture” — a wetlands area near the village that has cultural and religious significance to the tribe. During negotiations, the Pueblo insisted that the town of Taos and El Prado Water and Sanitation District move existing water wells, which the Pueblo believes are depleting the Buffalo Pasture.

The town agreed to limit pumping at wells near the wetlands, and has been allocated \$16.8 million to drill five additional wells elsewhere, sometime in the future.

El Prado Water and Sanitation District has also agreed to phase out one of its wells near the Pueblo boundary and limit production on another. To make up the difference, El Prado Water and Sanitation District will get \$15.6 million to drill two new wells off U.S. 64, near the Rio Grande Gorge Bridge. A pipeline will be built to carry the water more than four miles from the new wells on the mesa to El Prado water-users. The district will also get \$2 million from the state to buy additional water rights — enough to increase its share from 22 acre-feet a year to 575 acre-feet. The increase is necessary to be prepared for future growth, the district argues.

John Painter, a founder and board member of El Prado Water and Sanitation District, says each party at the bargaining table was forced to make concessions that they weren’t thrilled about, and accommodating those concessions required an investment. But if it relieves friction between the parties, Painter says it’s worth it.

“Yeah, it’s expensive. But in the long run it will be a good deal,” Painter says.

‘Hang on to what we have’

Back along El Salto Road, Palemòn Martinez motions southeast, toward the mouth of the canyon where the Rio Lucero emerges from the mountains on Taos Pueblo land. For a century, Martinez says the Pueblo and Hispano settlers have disputed ownership of this parcel (known as the Tenorio Tract) and the water rights tied to the property.

When a court decision put the land firmly in Pueblo hands, Martinez says it significantly reduced the amount of water that could be siphoned off the Rio Lucero for non-Pueblo farmers. As a result, Martinez says irrigated acreage as far downstream as Las Colonias dried up.

Martinez is president of the Taos Valley Acequia Association, which represents 55 individual ditches in and around Taos. During the Abeyta negotiations, Martinez says the organization sought to protect the irrigated land now served by acequias, especially 1,350 acres in the Arroyo Seco area. “From an acequia standpoint, we’re just trying to hang on to what we have,” Martinez says.

Through the terms of the settlement, the Acequia Madre del Rio Lucero y Arroyo Seco (which is fed by the Rio Lucero) has been allotted an additional 100 acre-feet of water to make up for water that was lost with the Tenorio Tract. But instead of diverting the additional water directly to the fields during runoff season, the settlement calls for an underground water storage facility that will, in essence, bolster the flow in the acequia.

Water will be diverted from the Rio Lucero during the winter and travel across 1.25 miles of Pueblo land in a lined ditch to a well station to be built just east of Arroyo Seco. Once there, two wells will pump the water about 1,000 feet below the surface — down to what some hydrogeologists believe is the same aquifer that feeds the Rio Grande.

When irrigation season rolls around, the mayordomo of the ditch will be able to use the same wells to pull water from underground and put it back into the ditch to supplement natural flows. The concept is known as an Aquifer Storage and Recovery Project (ASR). Other ASR projects are already operating across the country.

Similarly, deep wells are to be drilled along the banks of the Rio Grande del Rancho, Rio Chiquito and Rio Hondo, as well as in town. These “mitigation wells” will pump from the same deep aquifer tapped by the ASR. The purpose is to put water back into the rivers and ditches that are fed by a shallow aquifer below the Taos Valley.

“On it’s face it sounds absurd. How can you offset the effect of pumping from a well by pumping from another well?” says John Shomaker, the Albuquerque hydrogeologist and proponent of the ASR and mitigation wells. “But it does make sense if you think about the way the hydrology works.”

Under normal conditions, Shomaker says water runs from the mountains into the valley, then on to the Rio Grande Gorge. Once streams come into the valley, their flows are augmented by the shallow aquifer that is the underground water source for the town of Taos, El Prado Water and Sanitation District, and several mutual domestic water providers.

The worry is that, as Taos grows, these and future wells will pump more water from shallow depths. The added pumping could drain the shallow aquifer and reduce the flow of streams below the wells. The effect is known in the agreement as “depletion.”

To maintain the shallow groundwater supply and stream flows, a water model designed by the Office of the State Engineer will be used to calculate how much “depletion” is occurring each year. In turn, the

State Engineer will say how much water the mitigation wells should pump from the deep aquifer, up to the surface, to put water back into the streams that feed the shallow groundwater supply. The same water can be used by acequias to supplement surface water supplies. In a few cases, the mitigation wells will be tied into domestic water systems to add to their water pumping capabilities.

About \$5.8 million has been set aside to pay for the mitigation wells. The ASR is expected to cost another \$8.1 million.

Stop the ‘nibbling’

Supporters of the Abeyta Settlement say there are other major benefits to the ASR and mitigation wells: preserving irrigated land and ensuring the availability of water in times of drought.

Without the agreement, Shomaker says future development in the Taos Valley would “nibble away” at surface water rights now tied to agricultural land. That’s because new wells would have to find “offsets” to counter whatever they will be pumping out of the ground. The state requires offsets in order to keep the entire water system whole.

For example, the town couldn’t simply drill a new well and start pumping 100 acre-feet of previously untapped water. It would first have to seek out another water rights holder and buy enough water rights to counter-balance what the town wanted to pump.

But as demand rises, water rights are getting harder to come by. Many think Taos County’s acequia-fed, irrigated lands are the most susceptible to being bought out. Once water rights are bought and transferred from an acequia to a well, the land can no longer be irrigated with the ditch. Former farmlands across the county have already been left barren through this ongoing process.

Instead of “nibbling away” at acequia water rights, the Abeyta Settlement calls for a wholesale transfer of additional water through the San Juan-Chama Project in order to keep the system whole.

Since 1970, the San Juan-Chama Project has carried water from the San Juan River Basin, through tunnels under the Continental Divide, and into the Rio Grande Basin.

If residents of Taos County begin pumping more water — water that eventually ends up in the Rio Grande — it could potentially leave water users as far away as El Paso with less than they are owed under interstate agreements like the Rio Grande Compact. The San Juan-Chama water is meant to make up the difference created by additional well pumping without forcing parties in the Taos Valley to go through countless, small-scale water transfers that inevitably leave locals waterless.

Also, because the ASR project, the mitigation wells, and the two future El Prado Water and Sanitation District wells will all tap into the deep aquifer thought to be connected to the Rio Grande, the offsets for those wells can come from Rio Grande water rights holders instead of rights held by those on the tributaries.

Peggy Barroll is a hydrologist with the State Engineer who co-authored the water model on which the Abeyta is based. She says allowing those seeking water to find it along the Rio Grande main stem takes the bull’s-eye off surface water rights holders on smaller tributaries — primarily acequia users. Barroll also says water rights on the Rio Grande are normally cheaper.

However, some Taos water activists have raised concerns over the Abeyta settlement.

39919Kay Matthews heads an advisory board of volunteers appointed by the Taos County Commission to review proposed water transfers and determine if they could threaten the public well being. She wonders if the science behind the Abeyta settlement will pan out, or if there will be unforeseen consequences. “It all sounds well and good, but it’s all on paper,” Matthews said. “There’s this thought that they’re always going to be able to move enough water to make everyone happy. But eventually, somebody is going to be unhappy.”

Barroll with the State Engineer says scientists will keep an eye on the effects of pumping related to the settlement and adjust their model if things don’t work out as expected.

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