NEW MEXICO LEGISLATIVE COUNCIL SERVICE
INFORMATION BULLETIN
NUMBER 24

LEGISLATIVE RESEARCH, POLICY & COMMITTEE SERVICES APRIL 2014

CONTINUING DROUGHT AND NEW MEXICO'S RESPONSE

Summary

The worst drought in more than a century continues to grip New Mexico, with record-breaking wildfires, high temperatures, low water levels in lakes and reservoirs and dropping water tables marking what some experts say is a return to the state's "normal" conditions.

The legislature and some local jurisdictions have acted to better manage New Mexico's limited water. Regional and statewide water planning reduced residential consumption, and water use efficiency, watershed and riparian restoration and infrastructure development are all part of the solution. But all water management strategies must be pursued within the constraints of the state's constitution and water law.

State Water Planning

The state's water planning process must respect the prior appropriation doctrine (Article 16, Section 2 of the Constitution of New Mexico) and the claims of senior water rights holders, even while trying to restore ecological balance and ensure water quality.

Over the past seven years, more than $1.5 million has been appropriated to update the state and regional water plans. A revision was begun in 2008 but remains unfinished due to a lack of funding.

Water Consumption in New Mexico

Agriculture is the largest consumer of water in New Mexico, accounting for more than 75 percent of the water used. Another 10 percent goes to public supplies and domestic use, seven percent is lost to evaporation and the rest goes to livestock, commercial, industrial, mining and power companies.

The amount of water used each year has declined even as agriculture and the rest of the economy has expanded and the state's population has grown. Consumption is down 14 percent over the last two decades. Agricultural use has dropped from 3.4 million acre-feet in 1995 to three million acre-feet in 2010. Albuquerque residents in 2013 used the least amount of water per capita that they have used in 20 years, and Santa Fe residents have set an example for water conservation by using just more than 107 gallons per person per day.

The Constitution of New Mexico provides that beneficial use is "the basis, the measure and the limit of the right to the use of water" (Article 16, Section 3). The assumption is that water use provides a public benefit. The largest user, agriculture, reuses and recycles most of the water it withdraws, contributing to habitat protection and ground water recharge; economically preserving open space; providing local and organic food; and supplying the state with jobs and tax revenue.

State Constitution, River Compacts and Other Constraints

The legislature's ability to change water use policy is constrained by the Constitution of New Mexico and interstate compacts. The catalyst for the state water plan was a lawsuit filed by Texas over New Mexico's underdelivery of Pecos River water required by the 1948 Pecos River Compact. In that case, the U.S. Supreme Court ordered New Mexico to pay Texas $14 million (Texas had asked for $1 billion). It also ruled that actual water, not money, would be required as compensation if New Mexico delivers less than what is required in the future.

In recent years, it appeared that New Mexico, indeed, was about to violate that U.S. Supreme Court order. This threat was sufficient to motivate water users, long at odds over rights to the river, to work out a settlement in 2002 of land purchases and water rights retirements by the state. The Carlsbad Irrigation District and Pecos Valley Artesian Conservancy District as well as smaller users, such as the Fort Sumner Irrigation District and the Gallinas, Hondo and Peñasco river users, had been in litigation since 1956 involving a total of 14,500 non-Indian water rights claimants. The agreement settled that case and now helps ensure that the Pecos River flows reliably to meet compact

obligations. The state has spent more than $119 million – much less than Texas' $1 billion claim – on the land and water rights purchases.

Interstate Compacts

New Mexico is a member of seven other interstate river compacts – the Rio Grande, Colorado, Canadian, Animas-La Plata, La Plata, Costilla Creek and Upper Colorado River Basin – each of which constrains the state in water policy. Unfortunately, it is known today that most of the river compacts were negotiated during unusually wet years.

To avoid the consequences of a "priority call", under which senior water rights holders receive water while junior water rights holders receive little or none, several other regions, in addition to the Pecos, have established water-sharing agreements and protocols endorsed by the state. Most notably, those include the Rio Chama Acequia Association, the Rio Jemez, the lower Rio Grande and the San Juan shortage-sharing area.

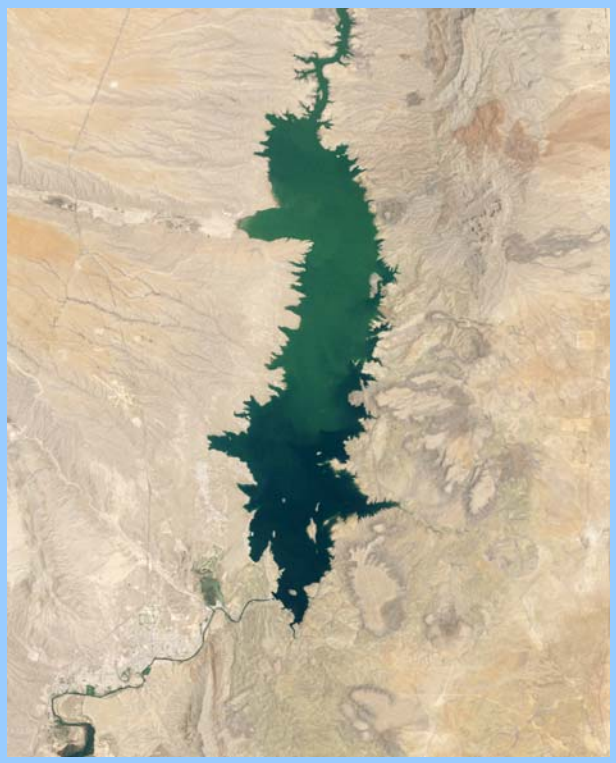
Water Rights Adjudications

Many believe the lack of clear title to water rights and incomplete adjudications obstruct effective reallocation of water, efficient use of water, protection of natural resources, adequate valuation of water and protection of legal rights. But adjudications are complex and expensive procedures. Consequently, only 67 percent of the state's acreage has been adjudicated, even though the legislature has appropriated almost $64 million to the Office of the State Engineer for adjudications over just the last 10 years. A dozen adjudications are currently before the courts.

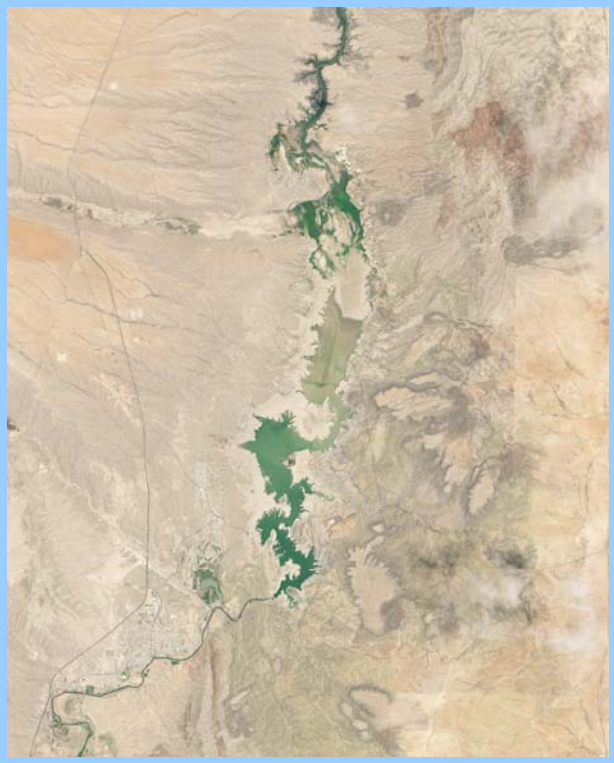
The legislature in 2003 gave the state engineer the ability to adopt what is known as active water resource management rules to administer water allocations in accordance with water rights priorities even if adjudications are incomplete. The New Mexico Supreme Court has upheld the validity of this process.

Then and Now
Elephant Butte Reservoir on the Rio Grande in Southern New Mexico

Water level in June 1994



Water level in July 2013



source: National Aeronautics and Space Administration

Indian Water Rights Settlements

Continued appropriations, for a total of $130 million, are also required pursuant to three Indian water rights settlements (Aamodt, Navajo Nation and Pueblo of Taos). Three other pueblos are still negotiating with the state, seven others are in litigation and negotiations with four have not begun.

"Finding" More Water

Augmenting New Mexico's water supplies is an obvious if hard-to-achieve solution. An estimated 15 billion acre-feet of brackish water lies below New Mexico at various depths and with various degrees of salinity. All of this water might theoretically be withdrawn and treated at unknown costs.

Alamogordo is building a desalination plant at a total projected cost of $20 million, having received $2.6 million in funding from the New Mexico Finance Authority last year. When Alamogordo first proposed its project, a number of neighboring local governments and agricultural interests objected, fearing that the withdrawal of deep brackish water might impair fresh water supplies overlying the brackish water. There may be similar objections in other proposals to withdraw brackish water elsewhere.

Produced water from oil and gas drilling also has been proposed as a solution to New Mexico's water shortages. Sometimes more water is produced from these wells than oil, but the water is contaminated and costly to clean, so it is simply re-injected underground. More than 767 million barrels of produced water was re-injected in 2012. Issues surrounding the costs of cleanup, ownership of the minerals in the produced water and transportation have been some of the obstacles to legislative proposals to exploit this potential resource.

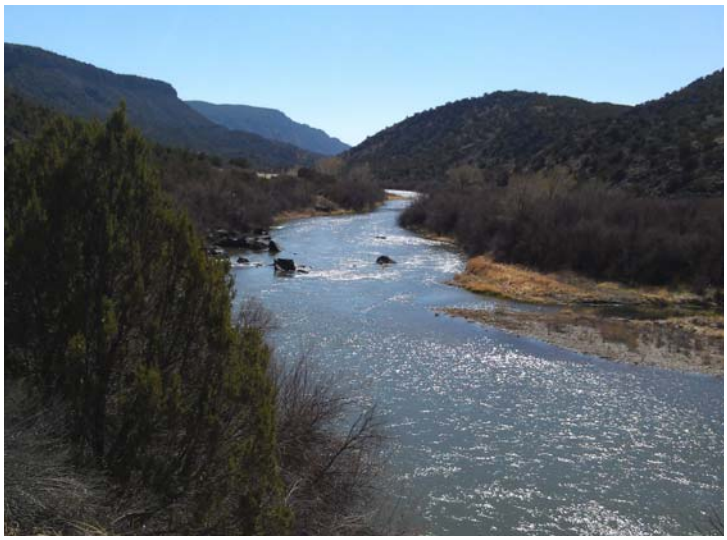
Cloud seeding has increased precipitation in some Texas studies, and several New Mexico counties have participated with Texas counties in cloud-seeding projects. Significant funding, however, has been opposed by some who are dubious about the reliability of studies on its efficacy.

The legislature has enacted a statutory foundation for future initiatives. Among those provisions are:

- *exemptions from forfeiture for water in approved conservation plans, 1991 (Sections 72-5-28 and 72-2-8 NMSA 1978);*
- *water conservation requirements in subdivisions, 1995 (Section 47-6-9 NMSA 1978);*
- *the Ground Water Storage and Recovery Act to reduce evaporation and conserve aquifers, 1999 (Sections 72-5A-1 through 72-5A-17 NMSA 1978);*
- *the Water Project Finance Act to, in part, fund watershed, salt cedar removal and water conservation projects, 2003 (Sections 72-4A-1 through 72-4A-10 NMSA 1978);*
- *the state water and drought management planning process, 2003 (Sections 72-14-3.1 and 72-14-3.2 NMSA 1978);*
- *the strategic water reserve to meet compact obligations and endangered species habitat protection, 2005 (Section 72-14-3.3 NMSA 1978);*
- *gray water reuse authority, 2003 (Section 74-6-4 NMSA 1978);*
- *protections for conserved irrigation water, 2003 (Section 72-5-18 NMSA 1978);*
- *water rights transfers for conserved irrigation water, 2007 (Section 72-5-18 NMSA 1978); and*
- *site development standards to include water conservation, 2007 (Section 3-53-2.1 NMSA 1978).*

In addition to the appropriations already mentioned, the legislature has appropriated:

- *$5,481,993 for endangered species recovery on the Rio Grande;*
- *$2.3 million for river stewardship in 2014;*
- *$20 million to the New Mexico Department of Agriculture for nonnative phreatophyte control and riparian/watershed restoration activities (including salt cedar removal) over 12 years;*
- *$23,927,134 through the Water Trust Board for watershed, forest and riparian restoration projects over the last eight years;*
- *$6.2 million to the Forestry Division of the Energy, Minerals and Natural Resources Department (EMNRD) for upper forested watershed restoration in 2014; and*
- *$4.8 million to the EMNRD for conservation easements and restoration projects in 2010.*



The Rio Grande at Pilar in northern New Mexico

Finally, a "new" source of water was proposed by the San Augustine Plains Ranch, located west of Magdalena: pump and pipe water from the ground in the San Augustine Plains to the Rio Grande. The proposal drew wide opposition from water policy stakeholders, and the state engineer dismissed the application. The decision is being appealed.

The basics of water reuse and recycling now appear to be drawing more attention for funding and engineering efforts than other water augmentation ideas.

Water Utilities

New Mexico has more than 650 public water systems operating, most of which operate or manage aging water infrastructure systems. Water leakage is a serious problem in many systems, with Las Vegas losing as much as 27 percent of its water supply, Ruidoso losing as much as 17 percent and Rio Rancho as much as 14 percent.

Ratepayers pay for most of the operating and maintenance costs of these systems, but the legislature has appropriated almost $1 billion for water and wastewater systems in the past 11 years, according to the Legislative Finance Committee. Legislation to consolidate and better coordinate the review of this funding was not approved in 2014.

Conclusion

While constrained by certain realities, the legislature has acted. New Mexico has a statewide water plan, but updating the plan requires good faith negotiations by planners and stakeholders, and funding from the legislature.

While compact obligations, threats of priority calls, Indian water rights settlements and competing attitudes define the limitations within which the state's water policy must be developed, options for improving and refining water management exist, including expedited adjudications, cloud seeding, desalination and expanded wise and efficient use policies.

One thing upon which there is near universal agreement is that the drought is real and probably long-lasting.

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This information bulletin was written by Gordon Meeks and does not represent a policy statement of the Legislative Council Service or its staff. For more information, contact the Legislative Council Service at (505) 986-4600.

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