

# Senate Memorial 8 Maximizing the Middle Rio Grande Water Supply Study 2014

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**Senator Michael Padilla**  
New Mexico District 14

**January 6, 2014**



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This report was prepared by the Mid-Region Council of Governments of New Mexico, in cooperation with the Middle Rio Grande Conservancy District and the New Mexico State Office of the Engineer Interstate Stream Commission. This is the first report submitted in response to Senate Memorial 8, passed and signed at the 2013 Regular Session of the New Mexico Senate.

# Acknowledgments

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## Glossary of Terms

- **Abandonment:** A legal principle used to describe water rights that are lost permanently when a person ceases to use water with the intent to stop using those rights.
- **Acequia:** A community ditch system.
- **Acre-feet/Acre-foot:** The amount of water that would cover an acre to a depth of one foot, equivalent to about 325,829 gallons (e.g., three acre-feet is nearly a million gallons). "Acre-foot" is abbreviated "af"; "afy" indicates "acre-feet per year."
- **Adjudicate/Adjudication/Adjudicated right:** An adjudication is a lawsuit to "determine the right to use" water (N.M. Stat. Ann. § 72-7-17 (Michie Repl. Pamp. 1997) ). The State Engineer can file suit or request the Attorney General to file suit on behalf of the state to clarify the status of water rights within an entire system, or a water-right holder who feels a right is impaired by a neighbor's diversion may bring a suit against that individual or entity, so that the court can establish the relative priority and the amount of the rights. In an adjudication, all claimants to water within the basin to be adjudicated are made parties to the suit. The court then directs the State Engineer to conduct a hydrographic survey of the stream system, which amounts to a detailed map of the stream system with all water diversions, including wells, acequias and the like, marked on a map. The court uses the hydrographic survey to establish individual water rights within the stream system, including priority dates and amounts of each right. Water rights are considered property rights that can be sold or leased. However, a water right grants only the right to use water that belongs to the state rather than granting outright ownership of the water itself.
- **Appropriation:** Aground or surface water right that is put to beneficial use.
- **Aquifer:** A saturated zone of rock or soil beneath the land surface that is capable of yielding water to wells.
- **Area-of-origin protection:** Protection of the economic viability of an area from which the water is to be sold and transported away, usually to another hydrologic basin. Potential negative impacts when water rights are transferred away from an area may include a lowered tax base and desertification of previously irrigated land.
- **Beneficial use:** Generally all uses of water from which acceptable, defined benefits are derived. The New Mexico Constitution and statutes require that waters may only be appropriated for beneficial use.
- **Compact:** An agreement between states that has been approved by legislatures of the states that are parties to the compact and by the U.S. Congress. Compacts apportion the water in interstate rivers among the states that are parties. New Mexico is a party to eight compacts, affecting all of the major rivers that flow across its state line and obligating New Mexico to deliver water to other states. No matter how vested a water right within the state might be, if using it violates a compact, the water cannot be used.
- **Consumptive right:** This defines the portion of the water right that may be evaporated or used up rather than returned to the hydrologic system. The consumptive right is usually specified in a permit.
- **Consumptive use:** Water that is transpired or evaporated and thereby lost to the system. A consumptive use is similar to "depletion" (see below).
- **Curtailment:** In the context of water rights, curtailment refers to reducing a junior water right in the event of water scarcity in order to satisfy a senior water right.
- **Declared basins/Declaration of a basin:** The State Engineer can "declare" a groundwater basin having reasonably ascertainable boundaries to be under his jurisdiction for the purpose of administering rights to the groundwater. In areas outside of declared basins, permits or licenses are not required to appropriate groundwater.
- **Declared right:** A declared water right is one claimed to have been perfected prior to the area coming under the State Engineer's administrative control. When a basin comes under State Engineer control, claims to water rights must be filed. For groundwater, State Engineer control is asserted with the declaration of the groundwater basin (after which a well may be drilled only with the permission of the State Engineer). For surface water, State Engineer authority dates from the enactment of the Territorial Water Code in 1907. A declared right is taken at face value so long as no change is proposed; the State Engineer does not attempt to establish whether the full amount of the declared right has actually been put to beneficial use since the time the right was declared to originate. However, if the right-holder subsequently applies to the State Engineer for a permit to change the ownership, place, or purpose of use of the right, the State Engineer does examine whether the right exists and in what amount (see Permitted right). The validity of a declared right is also examined during an adjudication.
- **Depletion:** The portion of a withdrawal that is evaporated, transpired, or incorporated into crops or products, or otherwise consumed and removed from the water environment (similar to Consumptive use).
- **Dewater/Dewatering:** The practice of pumping out and disposing of "nuisance" groundwater that floods underground mine workings or other subsurface features.
- **Diversion right:** A diversion right describes the amount of water that can be diverted from a stream or a ditch or can be pumped from a well, some of which may be returned to the hydrologic system, for example by seepage from an unlined ditch into the ground to recharge groundwater. Similar to the concept of withdrawal, it is a concept used in conjunction with consumptive rights to determine a water right and return flow credits.
- **Domestic well right:** Domestic well rights are known as "72-12-1" rights after the section of New Mexico law under which they are established. This law provides that the State Engineer "shall" grant a permit to any household to withdraw groundwater for domestic use. Traditionally, the amount of the right has been typically interpreted as three acre-feet per year. (These rights were defined at a time when most households in New Mexico had a garden and some stock – a horse, a cow, a few chickens.)

- **Evapotranspiration (ET):** The combined processes of simple evaporation and plant transpiration through which liquid water is converted to water vapor and lost from the water system.
- **Forfeiture:** Failure to use a water right for a beneficial use for four years constitutes forfeiture of the right. Forfeiture does not necessarily occur if circumstances beyond the control of the owner have caused non-use. Before the State Engineer can declare forfeiture, he must notify the owner of this intent and allow one year for the water to be put back into beneficial use. Forfeited water reverts to the public and becomes subject to further appropriation.
- **Hydrographic survey:** A detailed mapping of surface water and groundwater diversions and of the areas in which the water is beneficially used, as well as indicating the priority date for each right.
- **Hydrology:** The science that treats the waters of the earth, their occurrence and movement, their chemical and physical properties, and their depletion and replenishment.
- **Injection well:** A well that is used to place fluids into an aquifer or geologic formation. An example is an artificial recharge well used to inject treated water into an aquifer to mitigate groundwater mining.
- **Junior right:** A water right with a more recent priority date (date first put to beneficial use) and, therefore, theoretically subject to curtailment in times of scarcity.
- **Licensed right:** A licensed right is acquired when the holder of a permitted right presents proof of beneficial use to the State Engineer; that is, a survey by a licensed surveyor or analysis by a professional engineer, showing all aspects of the diversion and quantifying the amount of water diverted. The State Engineer critically examines these proofs, concurs with or corrects the amount of water held by the permittee, and then issues a license. A licensed right theoretically can be curtailed or redefined during a basin adjudication. (See also Permitted right and Declared right.)
- **Mining/Groundwater mining:** Extraction of groundwater at a rate that significantly exceeds replenishment. Mining usually implies that continued exploitation at this rate will damage the aquifer or make it unusable.
- **Permitted right:** In practice, a permitted right is established through the following procedure. The right-holder applies to the State Engineer for permission to divert a specified amount of water at a specified location for a specified use. Such an application for a water right permit must be advertised for public notice and may be protested. If the application is granted, the State Engineer issues a permit to carry out the diversion, subject to conditions he deems necessary. The permittee then drills the well or otherwise carries out the diversion, and within a time period specified in the permit, provides proof to the State Engineer that the diversion was completed. Theoretically, adequate proof is followed by issuance of a license. Typically, however, the permittee forestalls that step by routinely filing annual requests for extensions of time to submit final proof of application of the water diverted to a beneficial use. (See also Licensed right and Declared right.)
- **Prior appropriation:** The prior appropriation doctrine, common in the West, is used to rank (or prioritize) water rights. Generally, this ranking is summarized by the phrase "first in time, first in right." Any water right acquired prior to another right is considered the "senior" right, and any right acquired later is a "junior" right. A senior water right holder theoretically is entitled to the full amount of the right to water before the junior user is entitled to take any water.
- **Priority call:** An action to stop junior water rights users from taking water before the needs of senior water rights holders are satisfied. Recharge/Recharged/Recharging: Under natural conditions, the process that adds water to groundwater storage, usually from infiltration of rainfall or stream flow. Artificial recharge is also possible, when humans induce recharge through wells or by impounding water to aid infiltration.
- **Return flow:** Water that is returned more or less directly to the hydrologic system rather than being evapotranspired or otherwise consumed.
- **Return flow credits:** A permittee may be allowed to divert much more water than s/he has rights for, since the right generally is interpreted to be the amount of water actually consumed. Any enterprise that diverts water, consumes some fraction, and returns the rest back to the system, may apply to the State Engineer for a return flow credit, expressed as a percentage of diversion.
- **Riparian/Riparian area:** The environment adjacent to streams and rivers where water is usually relatively abundant; this term usually refers to the vegetation found alongside streams.
- **Safe yield:** Safe yield is a concept sometimes applied to groundwater resources. Generally, safe yield means using only that amount of water which is supplied to the system by renewable resources such as stream flow and precipitation.
- **Senior right:** A water right with an older priority date (date of origin), which theoretically takes precedence over more junior rights when water is in short supply.
- **Transfer:** This term is used to denote a change in the place or type of use of water right, such as switching from surface water to groundwater.
- **Vested right/Vested water right:** The term "vested right" is imprecise as it relates to water. It sometimes is used to describe a declared, permitted, or licensed water right, in which case "vested" simply means that the right is formally recognized, though not necessarily quantified. Another definition of "vested" is a right that has been put to beneficial use, particularly when that use originated before State Engineer authority existed. Several additional categories of vested rights exist outside of rights established through state law. These include: a. Interstate Compacts. See Compact above. Although groundwater is not specifically treated in all of these agreements, the agreements do affect groundwater as well as surface water because of the hydrologic interrelationship of the two. Interstate compacts in New Mexico cover the Upper Colorado River Basin, the Rio Grande, Pecos, Colorado, La Plata and Canadian rivers, Animas-Las Plata Project, and Costilla Creek.

b. Federal reserved water rights. The legislation establishing Federal reservations such as national forests, national parks and Bureau of Land Management grazing lands by inference granted sufficient water to those lands for them to fulfill their purpose. The amount of Federal reserved rights rarely has been quantified. Since 46 percent of the land area of New Mexico is federally owned (see L. Harris, *New Mexico Water Rights*, Miscellaneous Report #15, Las Cruces: New Mexico Water Resources Research Institute, 1984), and many upper watersheds and recharge zones are on federal land, it has been calculated that 77 percent of the average runoff in the drainage area of the Rio Grande originates on federal reservations (see C. Wheatley et al., *Study of the Development, Management and Use of Water Resources on the Public Lands*, 1969; cited in *U.S. v. State of New Mexico*, 438 U.S. 696, (1978)). This leaves considerable uncertainty as to how much water is available to allocate to downstream users.

c. Indian water rights. Ten percent of the land in New Mexico lies within the boundaries of Indian reservations. Just as the land was “reserved” for the various tribes, sufficient water was reserved for the reservations to be viable places for the Indians to live (i.e., the Winters doctrine; see *Winters v. U.S.*, 207 U.S. 564, 28 S.Ct. 207, 52 L.Ed. 340 (1908)). Since Indian reservations were generally established early in the process of Americans moving into a given territory, by the doctrine of prior appropriation their water rights are generally among the most senior in a stream system. Also, in New Mexico, rights formally assigned to pueblos under Spanish and Mexican law are recognized by the U.S. Government under the terms of the Treaty of Guadalupe Hidalgo.

d. Non-Indian pueblo water rights. The Mexican government made land grants to “colonization pueblos” in pre-Territorial days; each pueblo was entitled to use the waters flowing through and around its boundaries. Las Vegas, for example, claims an 1835 pueblo water right based on a land grant to its Mexican predecessors.



Rio Grande River, [www.history.com](http://www.history.com)

## Senate Memorial 8: Maximizing the Middle Rio Grande Water Supply Roundtable Outcome Report 2014

This report provides information to the New Mexico State Senate concerning the Senate Memorial 8 requesting a meeting to discuss maximizing the Middle Rio Grande water supply. This report provides an overview of the discussion that occurred on January 6, 2013, and all of the proposed options for maximizing the Middle Rio Grande water supply.



MRGCD, [www.mrgcd.com](http://www.mrgcd.com)

### Background

In response to N.M. Senate Memorial 8, passed by the New Mexico State Senate during the 2013 Session of the State Legislature, a roundtable workshop discussion was held with representation from all the governmental jurisdictions and agencies within the Middle Rio Grande valley, including representatives from acequias, Indian pueblos and others with special expertise. The role of this workshop was to list accomplishments over the past ten years and to evaluate the current state of the Middle Rio Grande water supply and develop options to maximize this supply.

State Senator Michael Padilla, sponsor of the Memorial also gave some increased direction for the roundtable group at the onset of the workshop. While the memorial already charged the respective groups to determine options for maximizing the water supply in the Middle Rio Grande region, the group was also tasked with developing three to five major tasks that not only maximize the water supply, but also effectively touch upon community involvement, education and economic development. Senator Padilla stated the "We're in dire straits there [econ. development] as a state. We all have that as our number one focal point and need to integrate that into anything we plan as water. Without some sort of solution, we can't bring in another company that is going to use up 5 million gallons of water..."

This report not only attempts to synthesize the ideas identified by the diverse group that attended the roundtable workshop, but also attempts to link each one of following suggestions to the three guidelines suggested by Senator Padilla.

### Overview of Roundtable Recommended Options

Participants identified five specific areas for the legislature to consider as priorities. Overarching themes included state funding and authorization support. All of the items below will need resources from a myriad of sources for implementation. The group recommends a dedicated source of funding be identified for a secure and well-supported effort in years to come, as well as exploration of public-private partnerships.

Some of the subsequent items will require authorizations, regulations or other forms of implementation support. The group chose to focus on new areas that need state support, understanding that the state is already contributing in significant ways to the health of the Rio Grande Basin, including the Endangered Species Act Collaborative Program. These initiatives have full support of the group. There is a need for the continuing role for water managers and stakeholders. Participants request that a group similar to this one continue to work with legislators as legislation and budgets are developed, for maximum coordination and effectiveness.

# Five Significant Ways to Maximize the Water Supply in the Middle Rio Grande

## ***Support efficiency improvements:***

- Discussion during the roundtable emphasized the need for state assistance to help Pueblos, acequias and individual farmers understand the need for efficiencies in water delivery and to implement efficiency improvements on their land, such as laser leveling and ditch lining. Although there are federal grants available through the WaterSMART program, Natural Resources Conservation Service (NRCS), Environmental Quality Incentives Program (EQIP) and other agencies, it is difficult for many farmers to meet the required 50% match. In addition, those agencies are unable to provide help to all the farmers who are requesting it.
- Participants also noted that there are serious inefficiency due to poor maintenance of conveyance infrastructure. State funding could assist farmers and local government to repair and replace infrastructure - both large and small - thereby increasing available water supply by decreasing losses.
- Participants noted that there may be opportunities for State funding to improve existing infrastructure to provide more efficient and precise control of water movement in canals, maintain operating head at efficient levels, and reduce overall system losses.
- The legislature could further address the need for measuring all water uses in the Middle Rio Grande basin by monitoring the efficiency of pipes, canals and other delivery and storage mechanisms as practicable.
- The State Engineer's Office is urged to implement critical management areas to reduce pumping and to address the proliferation of domestic wells.

## ***Identify and develop, as feasible, new sources of water, through:***

- Conservation
- Desalination of brackish water
- Water harvesting (may require examination and revision of state laws)
- Importation of water from outside the basin
- Cloud seeding
- Stormwater capture, as events increase in intensity

## ***Improve watershed health:***

- Maintaining and restoring healthy watersheds will improve both water supply and water quality. Thinning and managing forests will decrease the severity of fires, which result in contaminated runoff and loss of soil.
- Identifying and addressing sources of dust on snow will also increase snowpack longevity.
- Managing the bosque and riparian areas to remove non-native species will also increase water supply to the river.

## ***Support Regional and State Water Planning and Implementation:***

- Up-to-date, comprehensive, state and regional water plans will help the region identify and meet its future needs.
- There should be a linkage between state and regional water plans and their implementation. Specific milestones, accomplishments, and policies should be identified in these plans, and state policies or other factors should be contingent upon satisfactory and timely achievement of these goals.
- Developing a better understanding of the legal restrictions on water

## ***Water conservation education:***

- Citizens, farmers, ranchers, water managers and politicians need a greater understanding of the importance of the role of agriculture and other water users in the basin and the value of water conservation, including the various options available for conserving water resources.
- Educational initiatives should relate to, and affect elementary to high school students, significant water users in the region - users looking for access, and staff located within water related agencies.

## Potential Legislative Topics

The following potential legislative topics were developed as implementation strategies and are based on the broad topics developed by the workgroup. The list below is separated into categories specifically related to the topics on the previous page. These legislative topics are meant to act as potential catalysts for legislation in the near future. This list is by no means exhaustive and because it was developed outside of the workgroup, may or may not reflect the opinions of those in attendance.

### ***Support efficiency improvements:***

- Support federal funding of the Pueblo Irrigation Infrastructure Act in the Middle Rio Grande.
- Support for new wastewater/sewer collection system where groundwater quality is at risk
- Appropriate funding/Develop a financing tool to help subsidize local cost-share requirements for NRCS, EQIP and other federal agency water related grants.
- Initiation of a public works initiative for infrastructure upgrades – specifically regarding water conveyance infrastructure.
- Prioritize and implement critical management areas where needed throughout the state.

### ***Identify and develop, as feasible, new sources of water, through:***

- Develop statewide policies and incentives for water harvesting.
  - Potential to develop a statewide requirement attached to design guidelines/subdivision regulations requiring water harvesting techniques.
- Develop statewide policies and incentives for cloud seeding implementation during times of extreme drought.
  - Measurement of drought triggers cloud seeding attempts.
- Develop a task force/board to investigate feasible applications for conservation, desalination, importation of water, and stormwater capture for reuse.

### ***Improve watershed health:***

- Developing and appropriating funding to the New Mexico State Forestry Division for forest thinning and forest management to ultimately decrease the severity of fires and the potential for contaminated runoff, while providing economic development opportunities for rural communities.

### ***Support regional and State water planning and implementation:***

- Create a centralized office for all water related issues throughout the state.
  - Monitoring, funding of projects, etc...
- Potential to develop a water ombudsman office that can serve as a one-stop information source for water funding, monitoring, regulation, etc.
- Mandate linkage between state and regional water plans and their implementation including the requirement to be consistent and based on statewide/regional data developed from one source.
- Review and Update state legal restrictions on water.
- Investigate the potential to develop public-private partnerships regarding water projects that increase efficiency and decrease waste.
- Create a "Maximizing the Middle Rio Grande Water Supply Task Force" with a dedicated funding source/appropriation to continue the efforts of the Senate Memorial 8 progress and looking into additional topics listed in this report. Consider making this a state-wide task-force.
- Investigate the linkage between water supply and economic development within the Middle Rio Grande region incorporating ideas and initiatives developed in the CEDs, State Economic Development Plan, Municipal Economic Development Plans, etc... (How do we grow business without putting an increased strain on the water supply we currently have?)

### ***Water conservation education:***

- Develop state assistance and educational programs to help water and land managers, community ditches, acequias and individual farmers understand the need for efficiencies in water delivery and to implement efficiency improvements on their land.
- Develop educational incentives/requirements that encourage significant water users and users looking for access within the region to attend conservation classes prior to being approved for well permits/conveyance access. – may need to pair up with water managers throughout the state (i.e. acequias association, bureau of reclamation, ABCWUA, etc.).
- Develop and support existing educational incentives/requirements that relate to and affect elementary to high school students to educate regarding pollution and conservation.

## Drought in New Mexico

Warmer temperatures, decreasing annual precipitation and increasing drought severity all factor into the water supply available in the State of New Mexico. As precipitation decreases and drought becomes more severe throughout the state, maintaining the supply of water throughout the state is becoming an increasingly difficult task. January through December 2013 statewide precipitation was 98 percent of normal. 2013 ranks as the 47th wettest (72nd driest) on record. Although, these numbers look promising and have been used in arguing against New Mexico being in a drought, it does show that precipitation is all about the timing. Because the state has not seen a surplus of rainfall or snowpack, holding close to 100% of expected precipitation does nothing to account for the years of deficit we have seen in the past. Playing catchup is proving to be more and more difficult.

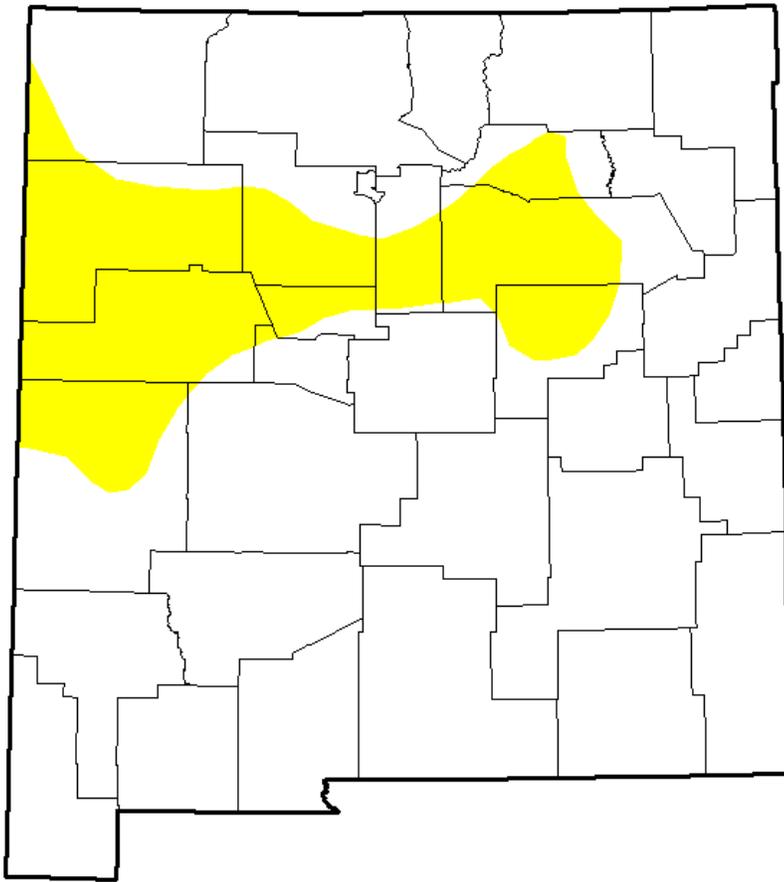
Last year, the Albuquerque Journal stated, "2013 is New Mexico's third consecutive year of drought, with the state suffering some of the warmest and driest conditions in the state since record-keeping began. From the town of Maxwell in the state's northeast, where municipal water supplies are running low, to the farming valleys of the south, where farmers are struggling and tension with Texas is flaring over scarce Rio Grande water, drought's impact is being felt across the state." Managing water throughout the state is not only a concern of human consumption, but also agricultural and ecological consumption. In May of 2013, the U.S. Fish and Wildlife Service approved a plan by Rio Grande water managers to cut back river flows in an effort to stretch dwindling water supplies for the endangered Rio Grande silvery minnow. This plan still fell short of water flow mandates outlined in the 2003 Rio Grande operating rules that had been developed to help revive dwindling minnow populations. Under the 2003 rules, the Bureau of Reclamation is required to keep the Rio Grande flowing continuously between Cochiti Dam and Elephant Butte Reservoir. However, in order to allow farmers and cities to continue using their share, the agency meets the minnow requirements by releasing water imported from the San Juan River basin and stored in dams along the Rio Chama. The plan was developed in an effort to prolong the risk of running out of water and drying the river completely later in the summer.

Because of these issues, efforts related to maximizing the water supply in the middle Rio Grande region are critical for the immediate future. To further illustrate the issue of drought in New Mexico, the following figures show the drought trend in June from 2010 to 2013. Topics and options related to maximizing the water supply in this report should be taken very seriously and expanded upon in the upcoming years as the drought trend is forecasted to intensify.



Revelto Creek, nm.water.usgs.gov

U.S. Drought Monitor: June 2010



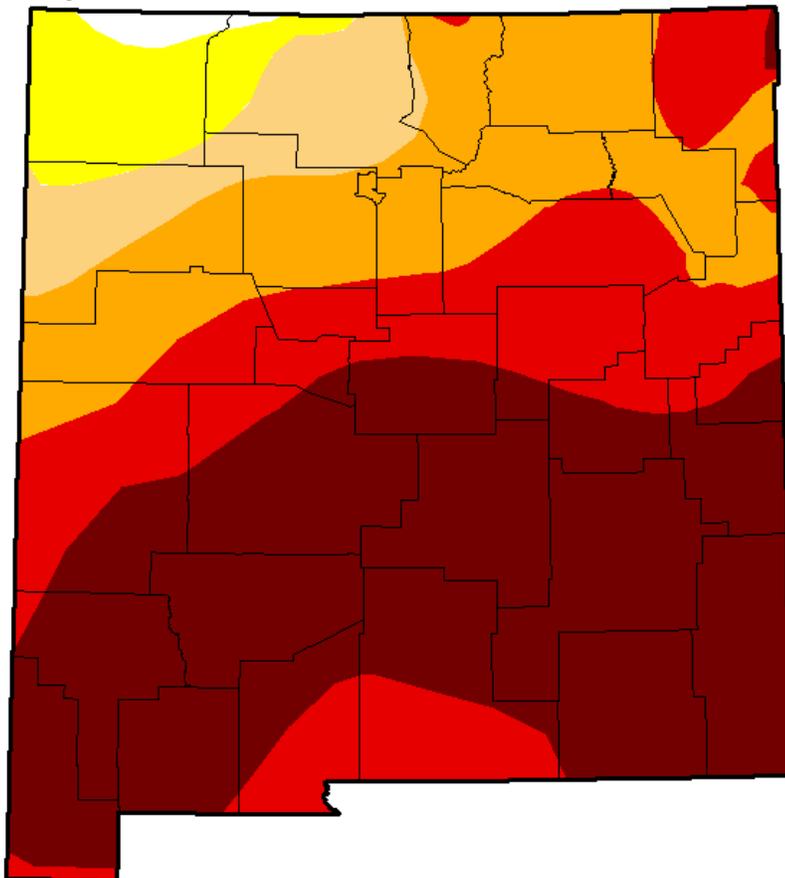
*Intensity:*

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

*The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.*



U.S. Drought Monitor: June 2011



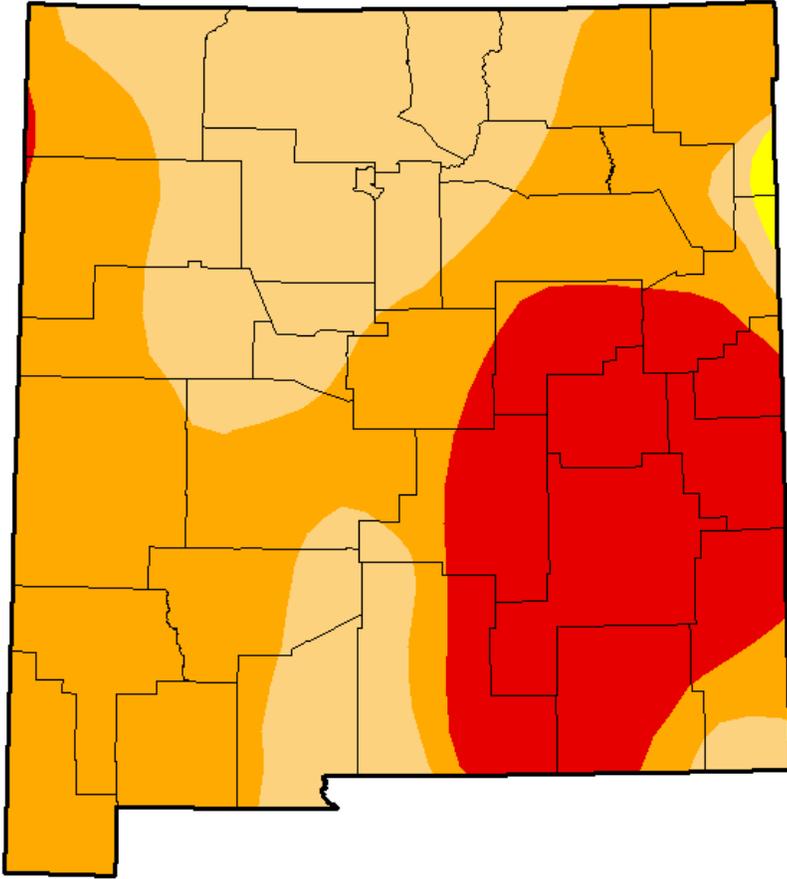
*Intensity:*

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

*The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.*



U.S. Drought Monitor: June 2012



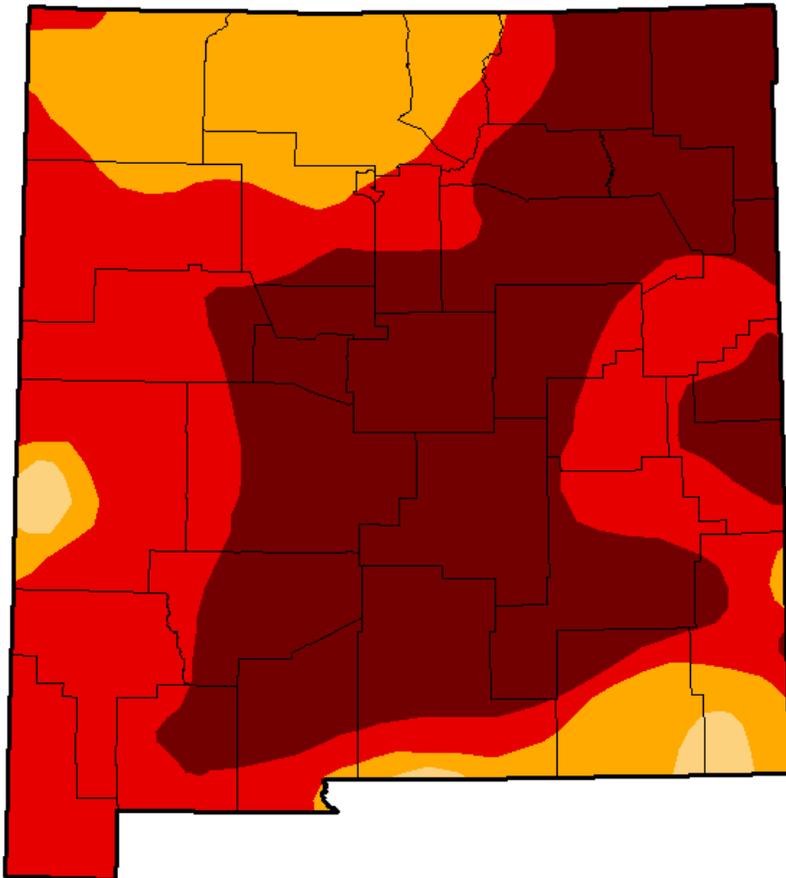
Intensity:

-  D0 Abnormally Dry
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-  D2 Severe Drought
-  D3 Extreme Drought
-  D4 Exceptional Drought

*The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.*

     
<http://droughtmonitor.unl.edu/>

U.S. Drought Monitor: June 2013



Intensity:

-  D0 Abnormally Dry
-  D1 Moderate Drought
-  D2 Severe Drought
-  D3 Extreme Drought
-  D4 Exceptional Drought

*The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.*

     
<http://droughtmonitor.unl.edu/>

## New Mexico Water Law

The development of strategies and legislative priorities in order to maximize the Rio Grande water supply would be futile without taking into account water law in New Mexico. The following section briefly describes the historical aspect of water law in New Mexico and how it has evolved over the past several hundred years. This evolution involves not only the development of acequias and the Indian-Spanish concept of public control of water and community ownership of ditches, but also the development of interstate water compacts and Pueblo/Indian water rights.

### History & Background

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All water rights in New Mexico carry with them the right to use water from a specific water source to be used at a specific location and for a specific purpose of use. Typically, a water right for irrigation purposes is associated with a designated tract of land. Most irrigation water rights in New Mexico became established by historic irrigation practices of the land, and if continued to the present, retain that water right. Surface water rights originating prior to 1907 do not require a State Engineer permit to be considered valid today, as long as that use has been continuous.

New Mexico has a long history in regulating and managing the water supply throughout the state. In the Sixteenth Century, the Spanish brought technological advances in ditch irrigation and a legal system of water control to New Mexico. Part of this legal process involved the formation of acequias for irrigation. This system of community ditches required community participation in maintaining the expansive acequia system. This system bound the early Spanish settlers into social units that still exist today. The pueblos eventually adopted many of the Spanish irrigation practices, but also continued ancient ceremonial practices associated with irrigation.

In 1848, when New Mexico became a United States territory, it also adopted the expansive agricultural system that had been slowly developing over previous years. This system, however, was based on conflicting rules of land ownership and water rights. By 1851, the Territorial Legislature had begun establishing water laws based on the Indian-Spanish concept of public control of water and community ownership of ditches. In 1907, the Legislature adopted the territory's first comprehensive surface water law, and thus continued its role in protecting water rights. The two keys of this new water law were the development of the basic concept of prior appropriation and the establishment of the territorial engineer (State Engineer) as the administering officer.

**Prior Appropriation:** The first person to take the water and put it to beneficial use has a superior right to that water than a person who puts water to use at a later date - first in time, first in right.

### Surface Water Rights

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Of the five main rivers in the state, two flow westward and three flow southeasterly. The largest river, the Rio Grande, travels some 1,800 miles from its source in Colorado before terminating into the Gulf of Mexico. Acting as a thoroughfare for these rivers, New Mexico must share the surface water with its neighboring states and Mexico according to the terms of treaties, interstate compacts and court decrees. Being able to allocate an equitable share of the river flows requires close cooperation between New Mexico and its bordering states, however, due to the frequency of droughts, this has proven to be a very difficult task. Most of New Mexico's surface water supply has been fully appropriated, meaning that all water has been allocated to prior water users, thus, being able to supply this water and meet our compacts is becoming more and more difficult.

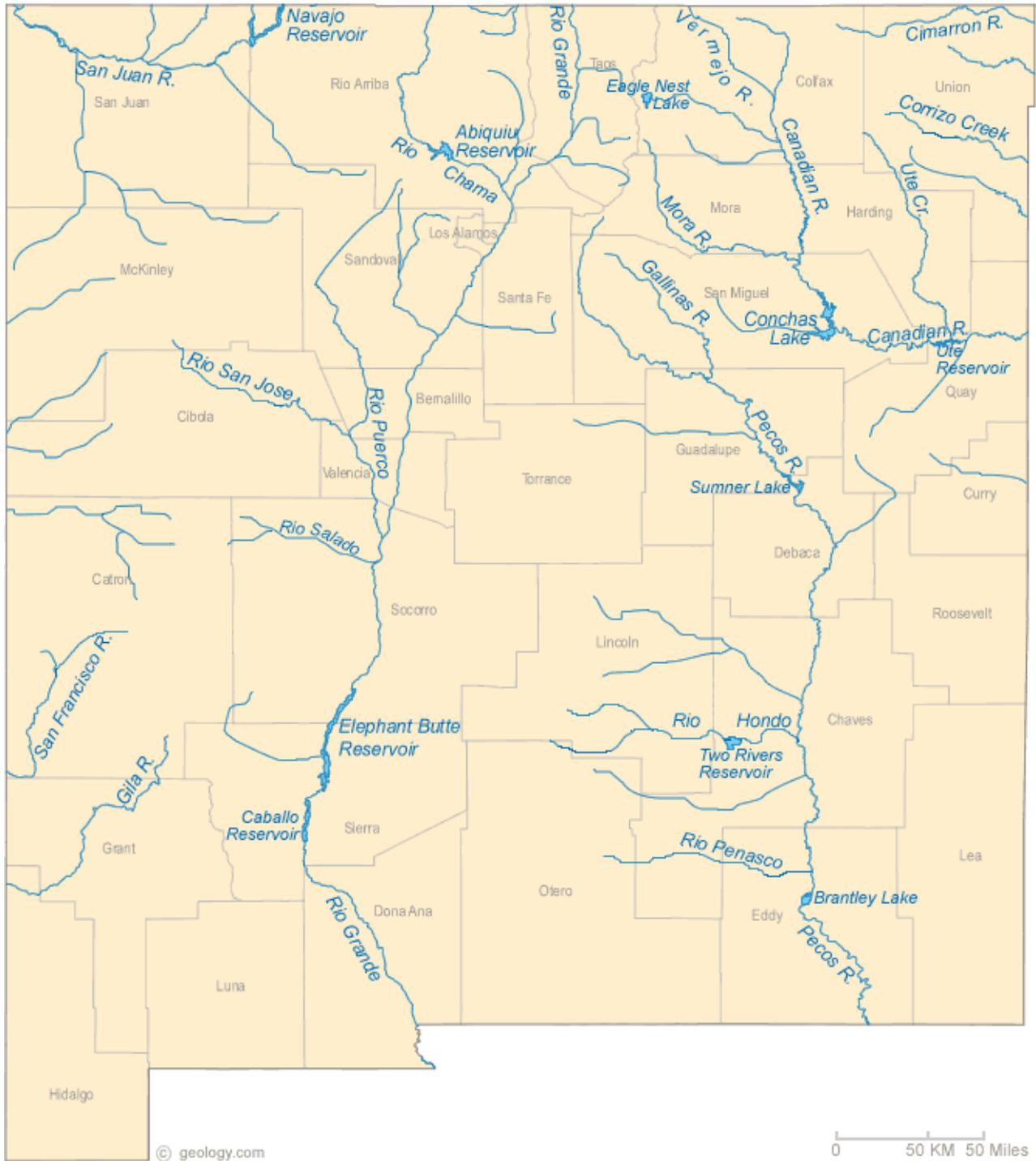
**Surface Water:** All water located on the surface of the land, such as rivers, lakes and streams.

Every water right is legally defined by a number of elements. These include the source of the water, place of use, purpose of use, point of diversion, priority date (i.e. date water was first put to use on the land), and the amount of water. As mentioned previously, New Mexico has a type of water law called the "prior appropriation" system. This system is found in most Western states and has been modeled on western mining law that was developed in the early 1900s. In times of water shortage, this system of prior appropriation gives preference to those water rights with the oldest priority dates. Particular to most acequia-based water rights, this is the date the acequia was first constructed. Throughout New Mexico, the most senior water rights are held by Pueblos and by acequia members, because those are the oldest communities in New Mexico with a continuous history of irrigated agriculture. Most acequias have priority dates in the 1600s through the 1800s which tie in to the dates those communities were settled and established.

**Priority Call:** A call on the State Engineer by senior water rights owners to reduce or stop the diversion of water by junior water right owners

In the event that there is a shortage of water on a stream, and the water users do not have an established system for sharing the water, then the senior water right owners have the right to demand that the State Engineer reduce or stop the diversion of water by junior water right owners. This is referred to as a priority call, and can be enforced if necessary by a court. New Mexico law also provides a provision for priority administration. In this case, the State engineer, or a water master appointed by the State Engineer, is legally authorized in times of shortage to allocate water in accordance with the different priority dates. This can be done by limiting the use of junior water users.

### NM Counties and Major Waterways



## Forefeiture and Abandonment

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Forefeiture is the loss of a water right due to non-use of a water right for four consecutive years, followed by a written notice from the Office of the State Engineer, and then followed by one additional year of non-use after the notice. Periods of non-use longer than four years can result in abandonment, even without notice from the Office of the State Engineer. This forefeiture and abandonment issue perpetuates issues related to conservation and any potential supply maximization throughout the state due to the likelihood of a “use it or lose it” mentality. Some Acequia associations and irrigation organizations recommend that members and water right holders irrigate all land on which water rights are owned regardless of need. For fear of losing a water right, these owner’s are pushed to use what they may not need. This issue contradicts the efforts of conservation and optimization in agricultural and consumptive uses by further straining the supply the State has in any given year.

**[ Abandonment:** Periods of non-use longer than four years. **]**

## Water Right Constraints

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Aside from vested and senior water rights, there are several other constraints impacting water rights. One constraint in apportioning surface water is that most of New Mexico’s surface water supplies are also governed by eight interstate compacts. States that share a surface water or groundwater resource enter into a compact first by reaching an agreement among the states concerning the conditions of the compact. After state approval, the compact is sent to the U.S. Congress for approval and then to the President where it is signed into law. The Rio Grande Compact, which was adopted in 1938, divides the river water among Colorado, New Mexico, and Texas. The purpose of the compact is to ensure that each state continues to receive its share of the surface water supply. Drought and increased population further complicate the state’s ability to meet these agreements.

### New Mexico’s Interstate Water Compacts

Compact	Parties to Compact	Date Signed
Colorado River Compact	Arizona, California, Colorado, Nevada, New Mexico, Utah, Wyoming	November 22, 1922
La Plata River Compact	Colorado, New Mexico	November 27, 1922
Upper Colorado River Basin Compact	Arizona, Colorado, New Mexico, Utah, Wyoming	October 11, 1948
Rio Grande Compact	Colorado, New Mexico, Texas	March 19, 1938
Costilla Creek Compact	Colorado, New Mexico	September 30, 1944
Pecos River Compact	New Mexico, Texas	December 3, 1948
Canadian River Compact	Oklahoma, New Mexico, Texas	December 6, 1950
Animas-La Plata Project Compact	Colorado, New Mexico	June 30, 1986

Roughly 46 percent of New Mexico’s land is federally owned. Some of the water rights associated with these federal lands come under the Reserved Rights Doctrine which asserts that when the federal government withdraws, or reserves, land from the public domain for a particular purpose, it also reserves the amount of water necessary to fulfill that purpose. These federal reservations include most national parks, forests, and monuments as well as military reservations. Federal reserved water rights is especially important because large quantities of water originate or flow through national forests and parks. Also, federal reserved rights can complicate state water planning because the state often doesn’t know how much water the federal government can claim for each reservation.

Indian water rights also have an large effect on New Mexico because roughly 10 percent of the state’s area is Apache and Navajo lands. These rights are similar to federal reserved rights in that the water right pertains to a reservation for a particular purpose. Federal control over Indian water rights, which is based on the Winters Doctrine, is the result of a dispute in the early 1900s. The Winters Doctrine states that each reservation of Indian land carries with it, by implication, a reservation of water sufficient for permanent homeland. Native American water rights are not governed by state water law. Problems come into play when contending with long-standing traditional water rights and Indian water rights.

Pueblo water rights are another federal water right that affects New Mexico. These rights are often confused with Indian water rights because of the similarity in terms. Each pueblo is a domestic sovereign nation that has a right to the use of the stream and ground waters which are located within the limits of the pueblo. In 1959, the New Mexico Supreme Court recognized pueblo rights as generally superior to appropriation rights. The treaty of Guadalupe Hidalgo, foreclosed the establishment of any more pueblos in 1848, and so, even the most junior pueblo right has a priority date of 1848.

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Flood Irrigated Field, [www.newscenter.nmsu.edu](http://www.newscenter.nmsu.edu)

# Appendix A

## Senate Memorial 8 Documentation



Rio Grande River, [www.uswateralliance.org](http://www.uswateralliance.org)

1 A MEMORIAL

2 REQUESTING A MEETING TO MAXIMIZE THE MIDDLE RIO GRANDE WATER  
3 SUPPLY.

4  
5 WHEREAS, the recent drought events within the middle  
6 Rio Grande have demonstrated the need for creative solutions  
7 to maximize the water supply; and

8 WHEREAS, use of water in agriculture in conjunction with  
9 other uses, including municipal and environmental, could be  
10 supported by improved methods of water storage and regulation  
11 of water flow rates from all sources, including imported  
12 surface water, native water and ground water; and

13 WHEREAS, a number of existing institutions currently  
14 regulate the middle Rio Grande, including the Rio Grande  
15 Compact, laws relating to pueblo Indian water rights, rules  
16 governing historic uses, environmental laws, contemporary  
17 state laws and The Conservancy Act of New Mexico; and

18 WHEREAS, it is vital to evaluate and understand all  
19 short- and long-term options for development of water  
20 supplies within the middle Rio Grande and to promote  
21 collaboration among all of its existing water users; and

22 WHEREAS, the state of New Mexico would benefit from a  
23 study of all options for maximizing the water supply,  
24 providing for conservation in its use among agriculture,  
25 industries, environmental groups and public and private

SM 8  
Page 1

1 utilities;

2 NOW, THEREFORE, BE IT RESOLVED BY THE SENATE OF THE  
3 STATE OF NEW MEXICO that a meeting be sponsored and jointly  
4 conducted by the middle Rio Grande conservancy district and  
5 the mid-region council of governments and attended by the  
6 office of the state engineer, the interstate stream  
7 commission, the water authority, the Buckman direct diversion,  
8 the United States bureau of reclamation, the United States  
9 army corps of engineers, the United States fish and wildlife  
10 service, water experts from industry, representatives from  
11 acequias, Indian pueblos and others with special expertise to  
12 list accomplishments made over the past ten years and outline  
13 remaining options. The results of the meeting will be  
14 documented and the sponsors shall jointly prepare a candidate  
15 list of options for reporting back to the legislature at the  
16 second session of the fifty-first legislature; and

17 BE IT FURTHER RESOLVED that copies of this memorial be  
18 transmitted to the middle Rio Grande conservancy district, the  
19 mid-region council of governments, the office of the state  
20 engineer and the interstate stream commission. \_\_\_\_\_

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Page 2

## Appendix B

### State Water Information Resources



Mora River, [www.newswatch.nationalgeographic.com](http://www.newswatch.nationalgeographic.com)

## State Water Information Resources

### US Geological Survey (USGS) New Mexico Water Science Center

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Website address: <http://nm.water.usgs.gov/>

Information available:

- Information on New Mexico's rivers and streams, groundwater, water quality, and many other water related topics. The USGS operates the most extensive satellite network of stream-gaging stations in the state, many of which form the backbone of flood-warning systems.
- Also available: the 2012 Water Data Report, many highlighted publications and the Instantaneous Data Archive which makes available intra-day streamflow data and historical instantaneous data. This data is updated with measurements from every 5 to 60 seconds.

### Utton Transboundary Resource Center

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Website address: <http://uttoncenter.unm.edu/>

Information available:

- The Utton Transboundary Resources Center researches and provides information to the public about water, natural resources and environmental issues, with a particular focus on New Mexico and the Southwest. It also supports collaborative natural resource management using multidisciplinary expertise and inclusive, diverse stakeholder involvement.

Publications of particular interest:

- Water Rights Management In New Mexico and Along the Middle Rio Grande: Is AWRM Sufficient? By Carol Romero-Wirth, Esq., & Susan Kelly, J.D.
- State and Regional Water Planning in New Mexico, By Brigette Buynak, Esq., & Susan Kelly, Esq. (2008), Updated by Joanne Hilton, Hydrologist Susan Kelly, Esq. (2009), Updated by Susan Kelly, Esq. (2010), Updated by Adrian Oglesby, Esq. (2011)

### New Mexico Water Resources Research Institute

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Website address: <http://wrrri.nmsu.edu/>

Information available:

- The New Mexico Water Resources Research Institute is located in Las Cruces, New Mexico at New Mexico State University. The NM WRRRI was established in 1963 by the New Mexico legislature and approved under the 1964 federal Water Resources Research Act. The institute funds research conducted by faculty and students from universities across the state to address water problems critical to New Mexico and the Southwest. The institute also participates in joint efforts to solve water-related problems along the U.S./Mexico border. Through its support of research and its interaction and cooperation with other water resources entities, the institute continuously strives to alleviate water problems, working toward ensuring an ample supply of high quality water for future generations.

### New Mexico Water Dialogue

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Website address: <http://nmwaterdialogue.org/>

Purpose:

- The purpose of the New Mexico Water Dialogue: "To promote the wise stewardship of water resources in New Mexico through support of community-based forums for education, communication, and development of common ground." Our work goes several steps further. The diversity of the voices represented in Dialogue forums and on our statewide Board of Directors means that we seldom take positions on the content of water policy. But we share broad understanding about the need for open, inclusive and democratic processes in the development and administration of those policies, and we keep track of policy-making activities in the Office of the State Engineer, the Interstate Stream Commission, and the New Mexico Legislature to make sure that they adhere to these principles.

### Middle Rio Grande Water Assembly

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Website address: <http://www.waterassembly.org/>

Purpose:

- The Middle Rio Grande Water Assembly is a grass roots all-volunteer organization that focuses on water-related issues for Valencia, Sandoval and Bernalillo Counties in New Mexico.

### New Mexico Conservation Voters

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Website address: <http://cvnm.org/>

Mission:

- CVNM is connecting the people of New Mexico to their political power to protect our air, land, and water for a healthy Land of Enchantment. We do this by mobilizing voters, winning elections, holding elected officials accountable, and advancing responsible public policies.

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## Gila Conservation

Website address: <http://www.gilaconservation.org/>

Purpose:

- Organized in 1984 to protect the free flow of the Gila and San Francisco Rivers and the wilderness characteristics of the Gila and Aldo Leopold Wilderness areas, the Gila Conservation Coalition (GCC) is a partnership of local environmental and conservation groups and concerned individuals that promote conservation of the Upper Gila River Basin and surrounding lands.

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## New Mexico Food and Water Watch

Website address: <http://www.foodandwaterwatch.org/>

About:

- Food & Water Watch is a non-profit organization that advocates for common sense policies that will result in healthy, safe food and access to safe and affordable drinking water. Everyone is dependent on shared resources like clean water, safe food and healthy oceans. It's essential that these shared resources be regulated in the public interest rather than for private gain. Our staff, located in 15 offices in the United States, works with a range of constituencies to inform and hold policymakers accountable. Our international staff in Latin America and the European Union (where we are known as Food & Water Europe) work with coalition partners to track the global impact of U.S. corporations on public policy.

Publications of particular interest:

- Why New Mexico Needs Federal Funding for Water Infrastructure, Fact Sheet, April 2009



Flood Control Gate, Berino, NM, [www.newscenter.nmsu.edu](http://www.newscenter.nmsu.edu)

# Appendix C

State Water Related Division of Labor



Elephant Butte, [www.newswatch.nationalgeographic.com](http://www.newswatch.nationalgeographic.com)

## State Water Related Division of Labor

### New Mexico Finance Authority

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Website address: <http://www.nmfa.net/>

About:

- The NMFA assists qualified governmental entities in the financing of capital equipment and infrastructure projects at any stage of completion - from pre-planning through construction - by providing low-cost funds and technical assistance through a variety of financing sources.

Water related programs:

- *The Drinking Water State Revolving Loan Fund ("DWSRLF")* is operated in partnership with the New Mexico Environment Department ("NMED") to provide low-cost financing for the construction of and improvements to drinking water facilities throughout New Mexico in order to protect drinking water quality and the public health. This federal program, managed by the NMFA on behalf of the State of New Mexico, is funded through a federal capitalization grant of approximately \$8 million annually.
- *Water Project Fund* – Pursuant to the Water Project Finance Act, the NMFA administers the Water Project Fund and provides administrative support to the 16-member Water Trust Board, which recommends to the Legislature projects to be funded from annual distributions from the Water Trust Fund and 10% of the State's annual senior lien severance tax bonds.
- *Water Trust Board* - The 2001 Legislature enacted the Water Project Finance Act which created the Water Project Fund in the NMFA and charged the NMFA with the administration of the Fund and the Water Trust Board. The Water Trust Board is a diverse 16-member Board that recommends to the Legislature projects to be funded through the Water Project Fund. Under the Act, the Board recommends to the Legislature funding within five project categories: (1) water conservation or reuse, (2) flood prevention, (3) endangered species act (ESA) collaborative efforts, (4) water storage, conveyance and delivery infrastructure improvements, and (5) watershed restoration and management initiatives. Since its creation, the WTB has recommended more than \$228 million of funding for 221 projects statewide. (See more more information about the water trust board under Funding in this report.)

### New Mexico Environment Department

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Website address: <http://www.nmenv.state.nm.us/>

About:

- The New Mexico Environment Department's key responsibilities are to inform citizens and business on environmental protection and health and safety requirements, to monitor air and water quality and assess land to assure state and federal standards are met, to issue permits to facilities and businesses to ensure operations meet established environmental and health standards, to inspect work sites and industrial facilities to ensure they meet environmental laws and protect public and employee health and safety, to assist facilities with compliance requirements of environmental laws and regulations through outreach and technical assistance, and to resolve environmental issues that have or could have a direct impact on the health of the state's residents.
- NMED has many programs that focus on protecting the quality of our waters and assuring safe and effective infrastructure for delivering clean water to our communities. We coordinate much of our work with federal agencies, other state agencies, local governments, and citizen groups.

### Office of the State Engineer

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Website address: <http://www.ose.state.nm.us/>

About:

- The Office of the State Engineer is charged with administering the state's water resources. The State Engineer has power over the supervision, measurement, appropriation, and distribution of all surface and groundwater in New Mexico, including streams and rivers that cross state boundaries. The State Engineer is also Secretary of the Interstate Stream Commission.

*Interstate Stream Commission:*

- The Interstate Stream Commission has broad powers to investigate, protect, conserve, and develop New Mexico's waters including both interstate and intrastate stream systems. The eight unsalaried members of the Commission are appointed by the Governor. The ninth member is the State Engineer who under state law is the secretary of the Commission. The Interstate Stream Commission Director serves as the deputy state engineer.
- The Commission's authority under state law includes negotiating with other states to settle interstate stream controversies. New Mexico is a party to eight interstate stream basins. To ensure basin compliance, Interstate Stream Commission staff analyze, review, and implement projects in New Mexico and analyze streamflow, reservoir, and other data on the stream systems. The Commission is also authorized by statute to investigate and develop the water supplies of the state and institute legal proceedings in the name of the state for planning, conservation, protection and development of public waters.

***Water Resources Allocation Program (WRAP):***

- ***The Water Resources Allocation Program (WRAP)*** with the Office of the State Engineer is responsible for processing water rights applications, conducting the scientific research for making those water rights decisions, maintaining water rights records, and enforcing any conditions or restrictions on water use. Water masters in the program measure stream flow, allocate the water within a stream system based on state water law, and regulate and control diversions. Staff also inventory water resources, monitor water use, and cooperate with the U.S. Geologic Survey in monitoring groundwater levels throughout the state. Additional duties are licensing all well drillers, maintaining and updating the rules and regulations of the State Engineer, inspecting non-federal dams, evaluating subdivision water-supply plans submitted by counties, and promoting water conservation.
- ***Water Rights Division:*** Anyone wanting to use water in New Mexico must have a permit from the State Engineer. When evaluating an application for a new appropriation or to change the place and/or purpose of use of an existing water right, the State Engineer must determine that water is available, that the appropriation will not impair existing rights, that the intended use meets state water conservation efforts, and that the intended use is not detrimental to the public welfare. The law also requires the applicant to publish the application in a newspaper and give anyone with a legitimate objection the opportunity to protest the application.
- ***Dam Safety Bureau:*** The Dam Safety Bureau ensures that dams in New Mexico are designed, constructed, operated, and maintained as safely as possible. Dams that equal or exceed 25 feet in height, which exceed 15 acre-feet of storage or dams that equal or exceed 50 acre-feet storage, which equal or exceed 6 feet in height are under the jurisdiction of the State Engineer. Of the more than 600 dams in the state, 300 dams have jurisdictional status. The responsibilities of the Dam Safety Bureau include inspecting existing dams to verify they are operated and maintained in a safe condition. The bureau reviews plans and specifications for new dams and modifications and repairs to existing dams to ensure compliance with State Engineer design criteria. The bureau also inspects construction to verify that dams are built or repaired in accordance with approved plans on file with the State Engineer. Dams that have the potential to cause loss of life during a failure or potential to damage property and lifeline infrastructure are required to prepare and exercise an emergency action plan. The Dam Safety Bureau reviews these plans for completeness. Proper maintenance of dams is an important part of responsible dam ownership. The bureau reviews Operations and Maintenance Manuals for dams that are required to prepare and use a manual.
- ***Hydrology Bureau:*** The Hydrology Bureau performs a wide range of activities in support of the Office of the State Engineer and Interstate Stream Commission. Bureau hydrologists develop water resource models and administrative policies, evaluate water availability, assess and quantify hydrologic impact, provide expert testimony for litigation and adjudication cases, and research and design technical projects. The Hydrology Bureau also manages the statewide groundwater level monitoring program and the OSE library archives. A list of titles of Hydrology Bureau technical reports is available at the OSE library webpage.

***Water Use & Conservation/Subdivision Review Bureau:***

- ***Water Use Program:*** Water Use Program inventories surface and groundwater withdrawals and depletions by category, county, and river basin. The bureau maintains water-use databases and analyzes crop, weather, and water-use data. The bureau quantifies water requirements for irrigation and other uses and prepares technical reports for the water resources investigations and adjudication activities of the Water Resource Allocation and Litigation and Adjudication programs.
- ***Water Conservation Program:*** Water Conservation Program coordinates water conservation activities for the State of New Mexico. The program goals are to increase awareness regarding the value of our water resources; provide assistance to entities initiating water conservation plans and programs and, to assist in the development of state government policies which will encourage the implementation of water conservation measures in various water use sectors.

***Water Rights Abstract Bureau:***

- ***Water Rights Lookup:*** This is a searchable database for water rights within seven districts. Most of the districts have incomplete water rights data.

***Active Water Resource Management (AWRM):***

- ***AWRM*** is the administrative process to manage water. The tools for AWRM include: measuring and metering, rules and regulations, creation of water districts and appointment of water masters, and development of water master manuals. While these tools and elements are being developed, State Engineer staff continues to encourage and facilitate shortage-sharing agreements among water users in the various basins.

## Appendix D

### Water Funding Sources



San Juan River, [www.fws.gov](http://www.fws.gov)

# Water Funding Sources

## Environmental Protection Agency

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Website address: <http://water.epa.gov/>

Funding opportunities:

- **Catalog of Federal Funding Sources for Watershed Protection:** The Catalog of Federal Funding Sources for Watershed Protection Web site is a searchable database of financial assistance sources (grants, loans, cost-sharing) available to fund a variety of watershed protection projects. To select funding programs for particular requirements, use the search below. You can use subject matter criteria based searches, or general word based searches of the funding programs, or both.
- **Environmental Education (EE) Grants:**
  - This program supports environmental education projects that increase the public awareness about environmental issues and increase people's ability to make informed decisions that impact environmental quality. EPA awards between \$2 and \$3 million annually. More than 75 percent of these grant recipients receive less than \$15,000.
  - Since 1992, EPA has received between \$2 and \$3 million in grant funding per year and has awarded more than 3,500 grants.
  - Under this program EPA seeks grant proposals from eligible applicants to support environmental education projects that promote environmental stewardship and help develop knowledgeable and responsible students, teachers, and citizens. This grant program provides financial support for projects that design, demonstrate, and/or disseminate environmental education practices, methods, or techniques, and that will serve as models that can be replicated in a variety of settings.
  - Website address: <http://www2.epa.gov/education/environmental-education-ee-grants>
- **Watershed Funding Programs:**
  - **Nonpoint Source Pollution Funding:** Provides information on grant opportunities to implement efforts to address nonpoint source pollution, including Clean Water Act Section 319 grants and Nonpoint Source Minigrants.
    - NM Administrator is NM Environment Department's Surface Water Quality Bureau's Watershed Protection Section: <http://www.nmenv.state.nm.us/swqb/wps/>
    - More specifically, WPS staff cooperatively work to educate others and implement best management practices (BMPs) to reduce nonpoint source (NPS) pollutants from entering the surface and ground water resources of New Mexico. Workplans developed and funded under CWA §319(h) comprise a variety of efforts, including watershed association development, riparian area restoration, spill response, and treatment of abandoned mines.
    - The WPS also coordinates the state's CWA §401 certification and §404 dredge-and-fill permits with the US Army Corps of Engineers in addition to enforcing portions of the New Mexico Mining Act pertaining to water quality. In response to the §404 reissued nationwide permits on April 13, 2012, a Conditional §401 Certification for discharges to ephemeral surface water has been issued.
    - New Mexico's approach to water quality planning and management has evolved substantially over the last three decades, largely in response to the changing federal and state statutory mandates. Although the state currently conducts water quality planning on a statewide level, these efforts are focusing toward more of a watershed level in the context of statewide planning and management efforts. That is, planning and management are moving toward a holistic strategy to protect or attain the desired beneficial uses and levels of water quality within a watershed, including, where appropriate, protection of human health and aquatic ecosystems. A successful watershed protection approach must be founded on cooperative interaction between the federal, state, and local levels of government, and between the public and private sectors.
  - **Regional Grant Opportunities:** EPA's ten regional offices provide information on both regional and national sources of funding for a variety of water and watershed related projects. More information can be found at: <http://www.epa.gov/ogd/grants/regional.htm>
- **Performance Partnership Grants for State & Tribal Environmental Programs**
  - States and certain interstate agencies can combine two or more environmental program grants into a single PPG to reduce administrative costs and direct EPA grant funds to priority environmental problems or program needs.
  - More information can be found at: [http://water.epa.gov/grants\\_funding/ppg/ppgguide.cfm](http://water.epa.gov/grants_funding/ppg/ppgguide.cfm)
- **Section 106 Water Pollution Control Grant Program**
  - Section 106 of the Clean Water Act authorizes EPA to provide federal assistance to states (including territories, the District of Columbia, and Indian Tribes) and interstate agencies to establish and implement ongoing water pollution control programs.
  - More information can be found at: [http://water.epa.gov/grants\\_funding/cwf/pollutioncontrol.cfm](http://water.epa.gov/grants_funding/cwf/pollutioncontrol.cfm)
- **Targeted Watersheds Grants Program**
  - Established in 2003, the Targeted Watersheds Grant program is designed to encourage successful community-based approaches and management techniques to protect and restore the nation's watersheds.
  - More information can be found at: [http://water.epa.gov/grants\\_funding/twg/initiative\\_index.cfm](http://water.epa.gov/grants_funding/twg/initiative_index.cfm)

- **Tribal Funding**
  - EPA is currently soliciting applications to support the National Tribal Water Council to facilitate tribal participation and build tribal capacity to address water quality and drinking water issues.
  - More information can be found at: [http://water.epa.gov/grants\\_funding/tribal/index.cfm](http://water.epa.gov/grants_funding/tribal/index.cfm)

## Bureau of Reclamation

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Website address: <http://www.usbr.gov/>

About:

- Established in 1902, the Bureau of Reclamation is best known for the dams, powerplants, and canals it constructed in the 17 western states. These water projects led to homesteading and promoted the economic development of the West. Reclamation has constructed more than 600 dams and reservoirs including Hoover Dam on the Colorado River and Grand Coulee on the Columbia River.
- Today, the USBR is the largest wholesaler of water in the country. They bring water to more than 31 million people, and provide one out of five Western farmers (140,000) with irrigation water for 10 million acres of farmland that produce 60% of the nation's vegetables and 25% of its fruits and nuts.
- Reclamation is also the second largest producer of hydroelectric power in the western United States. Our 53 powerplants annually provide more than 40 billion kilowatt hours generating nearly a billion dollars in power revenues and produce enough electricity to serve 3.5 million homes.

Funding opportunities:

- **WaterSMART:** Congress recognized these issues with the passage of the SECURE Water Act, a law that authorizes federal water and science agencies to work together with state and local water managers to plan for climate change and the other threats to our water supplies, and take action to secure our water resources for the communities, economies, and the ecosystems they support. To implement the SECURE Water Act, and ensure that the Department of the Interior is positioned to meet these challenges, Secretary Salazar established the WaterSMART program in February 2010. WaterSMART allows all bureaus of the Department to work with States, Tribes, local governments, and non-governmental organizations to pursue a sustainable water supply for the Nation by establishing a framework to provide federal leadership and assistance on the efficient use of water, integrating water and energy policies to support the sustainable use of all natural resources, and coordinating the water conservation activities of the various Interior offices. Reclamation plays a key role in the WaterSMART program as the Department's main water management agency. Focused on improving water conservation and helping water and resource managers make wise decisions about water use, Reclamation's portion of the WaterSMART program is achieved through administration of grants, scientific studies, technical assistance, and scientific expertise.
  - More information available at: <http://www.usbr.gov/WaterSMART/>

## United States Department of Agriculture (USDA) / Natural Resources Conservation Service (NRCS)

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Website address: <http://www.nrcs.usda.gov/>

About:

- NRCS's natural resources conservation programs help people reduce soil erosion, enhance water supplies, improve water quality, increase wildlife habitat, and reduce damages caused by floods and other natural disasters.

Funding opportunities:

- **Environmental Quality Incentives Program (EQIP):** EQIP is a voluntary program that helps producers install measures to protect the soil, water, air, and other natural resources while ensuring sustainable production on their farms, ranches and working forest lands. The Natural Resources Conservation Service (NRCS) administers EQIP funding and provides participants with professional conservation expertise.
  - More information available at: <http://www.nrcs.usda.gov/wps/portal/nrcs/main/nm/programs/financial/eqip/>
- **Conservation Stewardship Program (CSP):** CSP is a voluntary conservation program that encourages producers to address resource concerns in a comprehensive manner by: Undertaking additional conservation activities; and Improving, maintaining, and managing existing conservation activities. CSP is available on Tribal and private agricultural lands and non-industrial private forest land in all 50 States and the Caribbean and Pacific Islands Areas. The program provides equitable access to all producers, regardless of operation size, crops produced, or geographic location. The Secretary of Agriculture has delegated the authority for CSP to the NRCS Chief.
  - More information available at: <http://www.nrcs.usda.gov/wps/portal/nrcs/main/nm/programs/financial/csp/>
- **Conservation Innovation Grant (CIG):** New Mexico NRCS requests applications for CIG to stimulate the development and adoption of innovative conservation approaches and technologies. Applications are accepted for projects located in New Mexico only. Applications are accepted from eligible individuals, non-federal government and non-government organizations for competitive consideration of grant awards for projects between one and three years in duration.
  - More information available at: <http://www.nrcs.usda.gov/wps/portal/nrcs/main/nm/programs/financial/cig/>

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MID-REGION COUNCIL OF GOVERNMENTS OF NEW MEXICO  
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