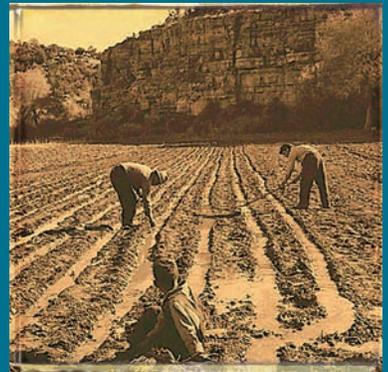
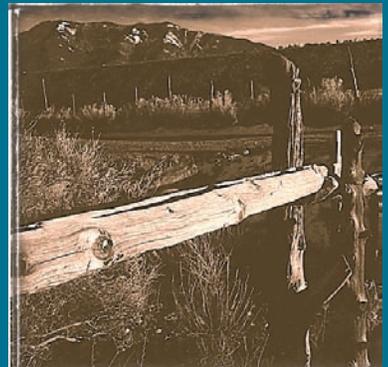
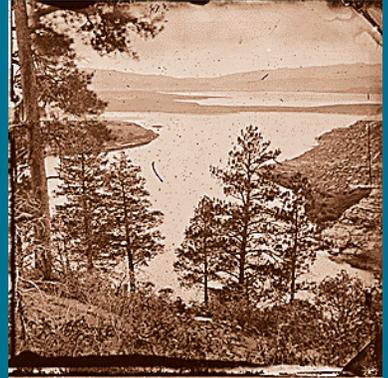


1907 - Office of the State Engineer - 2007



**Interstate Stream Commission**  
*A Century of Service to New Mexico*

2006-2007 Annual Report



# Contents



## 2006-2007 Annual Report

Office of the State Engineer  
Interstate Stream Commission  
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Santa Fe NM 87504-5102

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Fourth from Top: El Cerrito, San Miguel County, 1941, Irving Rusinow for the U.S. Agriculture Department, U.S. National Archives and Records Administration  
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|   |           |
|---|-----------|
| <b>Message from the New Mexico State Engineer .....</b>                                 | <b>2</b>  |
| Past New Mexico State Engineers.....  | 3         |
| John D'Antonio, PE .....  | 3         |
| <b>A Century of Service .....</b>   | <b>4</b>  |
| <b>Executive Summary .....</b>  | <b>7</b>  |
| Agency Trust Funds.....   | 8         |
| <b>State of the State's Waters .....</b>  | <b>10</b> |
| <b>Program Support .....</b>  | <b>12</b> |
| Employees of the Year .....   | 14        |
| <b>Public Information/Public Outreach .....</b>   | <b>16</b> |
| <b>Legislation and Policy .....</b>   | <b>18</b> |
| Water Committees.....   | 19        |
| <b>Native American Water Liaison.....</b>   | <b>21</b> |
| <b>Water Resources Allocation Program .....</b>   | <b>23</b> |
| Active Water Resource Management.....   | 24, 25    |
| Water Administration Technical Engineering Resource System .....                        | 28        |
| Water Conservation Education .....  | 37        |
| <b>Hearing Unit.....</b>  | <b>39</b> |
| <b>Litigation and Adjudication Program .....</b>  | <b>43</b> |
| The Water Rights Adjudication Process .....   | 44        |
| Court Validates AWRM.....   | 46        |
| Acequia Outreach.....   | 47        |
| <b>Interstate Stream Commission Program.....</b>  | <b>48</b> |
| Interstate Stream Commissioners .....   | 49        |
| New Canadian Basin Manager.....   | 52        |
| The Interstate Stream Compacts .....  | 54, 55    |
| Colorado Basin States Reach Agreement.....  | 58        |
| Seven Rivers Pipeline .....   | 68        |
| Refugium Groundbreaking .....   | 74        |
| FY07 Acequia Construction Program .....   | 75        |
| <b>Appendix A: Status of Active Adjudications .....</b>                                 | <b>76</b> |
| <b>Appendix B: Status of Hydrographic Surveys.....</b>                                  | <b>79</b> |
| <b>Appendix C: State Engineer Decisions Appealed in District Court.....</b>             | <b>80</b> |
| <b>Appendix D: Decisions in the Court of Appeals and New Mexico Supreme Court .....</b> | <b>80</b> |

### Charts, Tables and Photographs:

|  |     |   |                   |
|--|-----|---|-------------------|
| Photo: John D'Antonio.....                       | 3   | Surface Basins and Sub-Basins .....           | 32                |
| New Mexico Water Timeline .....                  | 4-6 | Hydrologic Investigations .....               | 34                |
| Photo: El Cerrito Boys, 1947.....                | 5   | Dam Safety Inspections .....                  | 35                |
| New Mexico Water Uses .....                      | 7   | Subdivisions Reviewed .....                   | 38                |
| Trust Fund Year-End Balances .....               | 9   | Photo: Rio Grande Valley farmer, 1936.....    | 40                |
| Drought Status Map .....                         | 10  | Status of Adjudications.....                  | 45                |
| Total Reservoir Storage .....                    | 11  | Status of Regional Water Planning.....        | 50                |
| Rio Grande Runoff at Embudo.....                 | 11  | Photos: Eagle Nest Lake, 1935 and today ..... | 51                |
| Revenue Flow Chart.....                          | 13  | Photos: Navajo Dam, 1960 and today .....      | 57                |
| Statement of Activities.....                     | 14  | Photo: Animas River, 1912 .....               | 61                |
| Statement of Net Assets .....                    | 15  | Photo: Blackwater Canyon, 1873.....           | 64                |
| Photo: Cumbre Awards.....                        | 16  | Photos: Carlsbad Irrigation Project, 1939     |                   |
| Photo: Century of Service Press Conference ..... | 17  | Pecos River Today.....                        | 66                |
| Photo: Rio Pueblo de Taos, 1941 .....            | 20  | Pecos Purchase Progress .....                 | 67                |
| Photo: Pojoaque Pueblo Governor .....            | 21  | Photo: Avalon Canal, 1908.....                | 70                |
| Photo: AWRM Open House.....                      | 24  | Photos: Elephant Butte, 1916 and today.....   | 72                |
| District Offices .....                           | 26  | Photo: Refugium Groundbreaking .....          | 74                |
| Status of WATERS Implementation .....            | 29  | Organizational Chart                          |                   |
| Groundwater Basins .....                         | 31  | with staff phone numbers .....                | Inside Back Cover |



## Message from the New Mexico State Engineer

**If we are to successfully compete in the future, we must consider the huge demand and subsequent cost for maintaining, replacing and building new water infrastructure while simultaneously preventing any environmental degradation.**

In 2007, our agency celebrated a “Century of Service to New Mexico.” This was a significant milestone in the history of our state. Looking back, some of the key dates and events that helped get us where we are today include the construction of Elephant Butte dam in 1916, the massive flooding of 1941, the severe drought of 1955 and the signing of the Rio Grande Compact among New Mexico, Colorado and Texas in 1938. Also notable is the water policy work of past State Engineers like Steve Reynolds, who held the position for 35 years.

In more recent history, key dates include 2003, when New Mexico’s first State Water Plan was completed; 2004, when the Active Water Resource Management initiative was launched; and 2005-2006, when three key Indian water rights settlements were signed. That brings us up to 2007, deemed “Year of Water” by Governor Bill Richardson to cast a spotlight on New Mexico’s many water issues and challenges.

We’ve made tremendous progress in the past five years, and I want to continue making progress in the years ahead. As we look to the future, my goals for this agency include the following:

- Moving forward with the Active Water Resource Management initiative, to put the tools in place to help our agency manage water effectively during times of hydrologic variability, including any extreme conditions resulting from the effects of warming temperatures;
- Making strides to secure funding to implement our Indian water rights settlements, which means continuing to work with our state and federal representatives;
- Making progress on ongoing adjudications and looking for process improvements to expedite future adjudications;
- Meeting the minimum requirements for implementation of the Pecos River Settlement Agreement, which involves purchasing and retiring land and associated water rights in the Pecos Basin to bring it into long-term hydrologic balance and the construction of augmentation well fields to facilitate New Mexico’s delivery obligations to the State of Texas;
- Continuing to make progress on the State Water Plan implementation strategies and completing a comprehensive review of the plan in late 2007 in preparation of the statutorily required 2008 update;
- Continuing to explore opportunities to increase our water supply through conservation, re-use, and new sources;
- Working cooperatively with the federal government in its efforts to comply with endangered species protection and recovery efforts;
- Continuing to make progress in populating the WATERS database to improve water administration and to make the information readily accessible to the public via the Internet.

During the past century, billions of dollars have been spent in the western United States to put in place a complex water management system to sustain the current population. Water system manipulation has been based on 19th and 20th century ideas. If we are to meet the economic challenges and environmental concerns of this century, we must be able to use a different model that allows us to act locally and accrue benefits statewide and nationwide, as well as globally.

**State Engineer**  
John D’Antonio, PE

If we are to successfully compete in the future, we must consider the huge demand and subsequent cost for maintaining, replacing and building new water infrastructure while simultaneously preventing any environmental degradation. Currently, the planning process for water-related infrastructure projects in New Mexico is fragmented and decentralized with available funding administered through multiple agencies. A new, uniform application process will be implemented along with a new collaborative procedure involving multiple agencies to develop and implement state water policy.

We must also actively manage the resource through proper measuring, metering and enforcement and aggressively focus on both climate change adaptation and mitigation. This can be better accomplished by creating a market mechanism to ensure that critical water demands are met during variable and prolonged shortages of supply.

In consideration of the state's abundance of fossil fuels and the growing demand for energy both locally and regionally, we must understand that the exportation of energy is also the exportation of our water resources. From a global and national perspective we must also consider a move toward clean and renewable sources of energy to reduce the carbon emissions shown to contribute to our warming temperatures and complexities of water administration.

Protecting New Mexico's water for future generations of New Mexicans remains our focus. We will continue to keep that in mind as we move forward into the next century of effective water management for all citizens.



## John D'Antonio, P.E.

A registered professional engineer in New Mexico and Colorado, State Engineer John D'Antonio has experience in hydraulic design, acequia rehabilitation, water resource management, and water policy development.

Before being appointed by Governor Bill Richardson to the state's chief water post, D'Antonio was cabinet secretary of the New Mexico Environment Department in 2002. He served as director of the Water Resource Allocation Program for the Office of the State Engineer from 2001 to 2002 and served as the State Engineer's Albuquerque district supervisor from 1998 to 2001.

D'Antonio worked 15 years with the U.S. Army Corps of Engineers as a hydraulic design engineer, as chief of the Hydrology, Hydraulics, Sedimentation, and Floodplain Management Program, and as project manager for the Acequia Rehabilitation Program.

A native New Mexican, D'Antonio received a bachelor's degree in civil engineering from the University of New Mexico in 1979.

He has been a member of the Governor's Blue Ribbon Task Force on Water from 1998 to the present.

In his post as State Engineer, D'Antonio is secretary of the Interstate Stream Commission, chairman of the Water Trust Board, Governor's Water Infrastructure Investment Team, and Governor's Drought Task Force and the New Mexico Commissioner to the Rio Grande, Costilla and Upper Colorado river compacts.

D'Antonio and his wife, Cassandra, along with their son, Nick, make their home in Albuquerque.



LA Photo



## Past New Mexico State Engineers

John D'Antonio has been State Engineer since his appointment in January 2003. His predecessors and their terms:

**David White**

April 1905-March 1907

**Vernon Sullivan**

April 1907-December 1910

**Charles Miller**

January 1911-July 1912

**James A. French**

July 1912-December 1918

**Leslie A. Gillett**

January 1920-December 1920

**Charles A. May**

January 1921-December 1922

**James A. French**

January 1923-December 1924

**George M. Neel**

January 1925-June 1926

**Herbert W. Yeo**

July 1926-June 1930

**George M. Neel**

July 1930-June 1932

**Thomas M. McClure**

July 1932-November 1946

**John Bliss**

November 1946-November 1953

**John R. Erickson**

December 1953-February 1955

**John Bliss**

March 1955-August 1955

**Stephen E. Reynolds**

September 1955-March 1990

**Philip B. Mutz**

April 1990-June 1990

**Carl L. Slingerland**

July 1990-December 1990

**Eluid I. Martinez**

January 1991-December 1994

**Thomas C. Turney**

January 1995-December 2002



## A Century of Service

One hundred years ago, in 1907, the Territorial Legislature of New Mexico passed New Mexico's Territorial Water Code. This visionary law assigned to courts the task of adjudicating New Mexico's water rights and created the office of the Territorial Engineer to have general supervision over the measurement, appropriation and distribution of New Mexico's water.

When New Mexico became a state in 1912, the new constitution adopted the water doctrine of prior appropriation embodied in the Code and, through Article XXII, Section 4, made the Territorial Water Code the State Water Code. In the century that has followed, New Mexico's water history has included the creation of water projects, the establishment of water compacts between New Mexico and its neighbors, floods, droughts, new hydrologic insights, negotiations with Native American groups, lawsuits over the claims of endangered species, and a commitment to an approach to water management that preserves water rights while also allowing for growth and change in the state. The foresight shown by the creators of the 1907 Water Code, together with the continuing work of many New Mexico citizens over the last hundred years, has provided a framework for meeting water management challenges.

In the early part of the century, the milestones of water history revolved around creating the physical and legal infrastructure through which water could reach an efficient use. The Rio Grande Project and Pecos River projects were built, and compacts among New Mexico and its neighbor states were negotiated. A groundwater code was added to the State Water Code, and the State Engineer's authority to regulate groundwater was

By Martha Franks

1907

**1907**

- Territorial Water Code enacted; Territorial Engineer created

**1912**

- Prior Appropriation Doctrine system of water administration adopted as part of the state constitution when NM became a state in 1912
- Territorial Water Code became State Water Code pursuant to Art. XXII § 4 of the Constitution

**1916**

- Elephant Butte Reservoir construction completed

1917

**1922**

- Colorado River Compact signed between CA, CO, NV, NM, and UT
- La Plata River Compact signed between CO and NM

1927

**1931**

- Groundwater Code adopted by the State Legislature

**1935**

- The Interstate Stream Commission created to investigate, protect, conserve, and develop NM waters
- El Vado Dam construction completed

**1937**

- Avalon Dam construction completed
- Sumner Dam construction completed

**1938**

- Caballo Dam construction completed
- Rio Grande Compact signed by NM, CO and TX

affirmed. The Interstate Stream Commission was created to investigate, protect, conserve and develop New Mexico's waters.

The mid-century was marked by natural events that showed the power and importance of water. The massive floods of 1941 brought forward a need to improve the science of flood management and changed the map of New Mexico. This was followed by severe droughts in the 1950s, which, together with advances in pumping technology, created a new emphasis on groundwater use.

These experiences, and New Mexico's continuing growth, stepped up interest in both the adjudication and the administration of water through the State Water Code. Adjudication lawsuits were filed on various rivers throughout the state. At the same time, State Engineer Steve Reynolds asserted the administrative authority to recognize the hydrologic reality that ground and surface water were interconnected and should be conjunctively managed whether or not an adjudication of the water rights involved had been completed. After a hard legal fight, the New Mexico Supreme Court agreed, and a new era of water administration began.

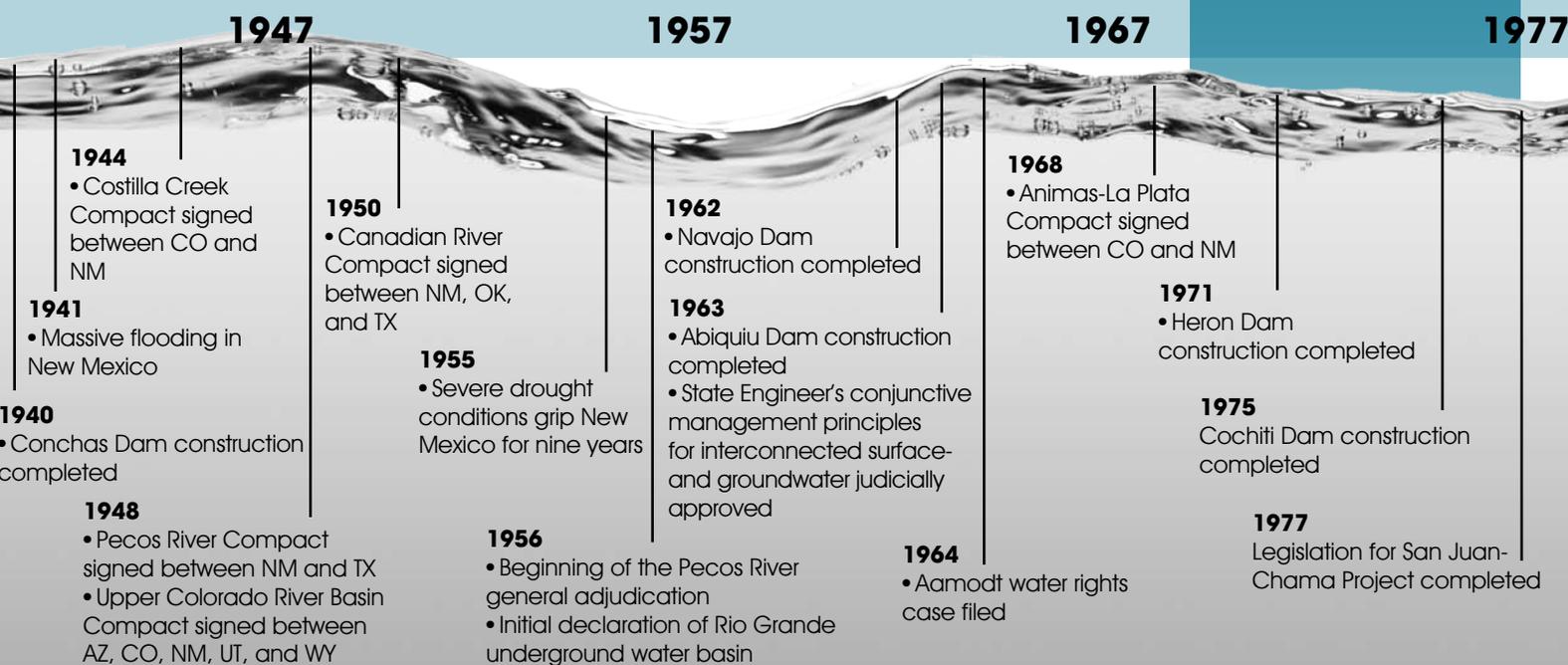
The last part of the century has seen demands for water increase greatly, giving rise to conflict.

Lawsuits under New Mexico's compacts have been filed, such as the one by the state of Texas claiming that New Mexico had under-delivered under the Pecos River Compact. In addition, through the adjudication lawsuits, many claims to water have been asserted, including, for example, the claims of Native American groups. Environmental groups have sued to make sure that water would be available to preserve endangered species in New Mexico's rivers and wetlands.



1947 – Two boys from the village of El Cerrito in San Miguel County scoop water from the community ditch for home use. Because the village had no spring, typhoid was common.

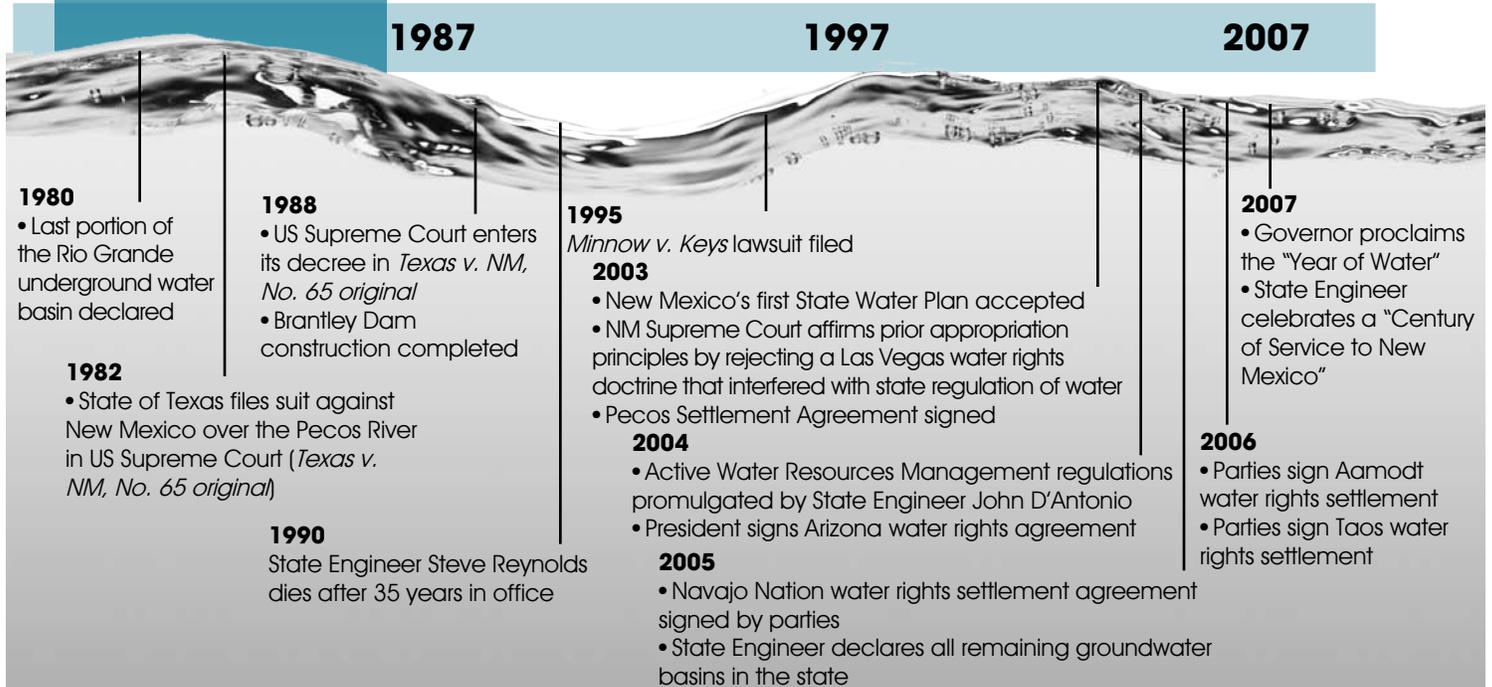
(Irving Rusinow for the U.S. Department of Agriculture, National Archives)



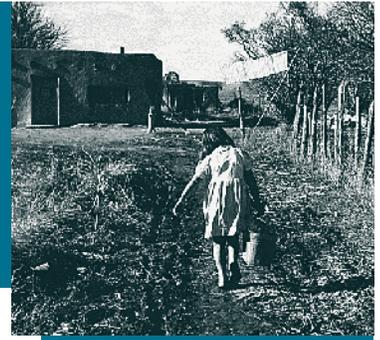


Recently, these calls on New Mexico's water have been addressed through a program of planning, negotiation and compromise. A coalition of interested people throughout the state came together in 2003 to create the State Water Plan to set priorities for water and to ensure that all voices were heard. New Mexico can now point to a proud tradition of settlement of water issues. The Pecos River settlement was recently upheld by the New Mexico Court of Appeals. A variety of Native American water rights settlements have been signed and await ratification. Extensive work has been done to bring interested parties together to protect New Mexico's environment without interfering with established water rights.

New Mexico's water future is best assured by listening to all of the experiences of the last century. The work of the original Water Code in calling for adjudication by the courts and administration by the State Engineer must be heeded, and the physical and legal infrastructure on which established water rights depend must be protected. Hydrologic reality must be recognized both in protecting New Mexico from floods and in addressing drought in a practical way through conjunctive management of surface and groundwater. Finally, the spirit of planning and negotiation should be honored. The most recent avenue for this is State Engineer John D'Antonio's Active Water Resources Management initiative, through which all parties interested in water can build the processes that will allow the vision of the writers of the 1907 Water Code to become a reality.



## Executive Summary



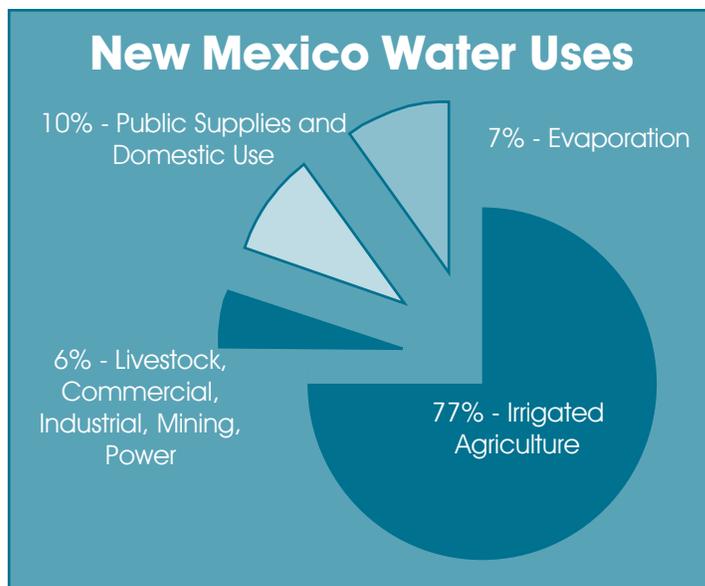
The State Engineer is statutorily charged with supervising the state's water resources through the measurement, appropriation, and distribution of all ground and surface water in New Mexico, including streams and rivers that cross state boundaries. Created as the Office of the Territorial Irrigation Engineer in 1905, seven years before statehood, the agency assumed responsibility over all surface water in 1907 and was renamed the Office of the Territorial Engineer. With statehood in 1912, the organization's responsibilities were expanded again to include all groundwater within declared groundwater basins – now 100 percent of the state – and the office was renamed the Office of the State Engineer.

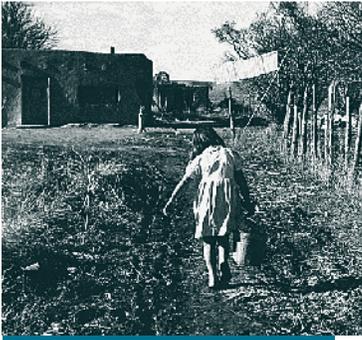
The State Engineer's approval is required for every use of water in New Mexico. State Engineer permission is needed to make a new appropriation, drill a well, divert surface water, or change the place or purpose of use of an existing water right. The Office of the State Engineer acts on water rights applications, evaluates existing water rights, measures and tracks water use and resources, promotes conservation, and performs the scientific, historical and legal research needed to support all of its activities. Additional duties include reviewing subdivision water-supply plans submitted by counties, licensing water-well drillers, inspecting non-federal dams, and rehabilitating diversion dams and irrigations ditches.

Although separate under state law, the Interstate Stream Commission staff members function as a division within the Office of the State Engineer. The State Engineer, appointed by the Governor and confirmed by the state Senate, serves as the Secretary of the Interstate Stream Commission. The Interstate Stream Commission Director serves as the deputy state engineer. The Legislature created the Interstate Stream Commission in 1935 and gave it broad powers to investigate, protect, conserve and develop the state's water supplies. Its separate duties include protecting New Mexico's right to water under eight interstate stream compacts and ensuring the state complies with each of those compacts, as well as developing and promoting regional and statewide water planning.

Water management in New Mexico is guided by several 100-year-old principles in the New Mexico Constitution: (1) All unappropriated water belongs to the public and is subject to appropriation by law. (2) The acquisition or continuation of a water right and where and how much water can be used is dependent on how the water is put to beneficial use. (3) Older water rights have priority over

**The State Engineer's approval is required for every use of water in New Mexico**





more recent water rights. Since 1907, a permit from the State Engineer has been required to divert surface water and put water to beneficial use. Permits are required for diverting groundwater anywhere that the State Engineer has declared a groundwater basin, which is now the entire state of New Mexico.

The Office of the State Engineer processes some 19,000 water rights documents a year, with the overwhelming majority involving groundwater. Currently, a third of the applications for new appropriations of groundwater concern domestic or stock uses. More than 100 applications a year draw protests and are then subject to a formal hearing process.

Water management in New Mexico is complicated by the state's long history. Some uses have been in place for centuries, some before written records or water laws. Another key activity of the Office of the State Engineer is legally establishing existing water rights through water rights adjudication. This court process is required by statute and is akin to a quiet title suit for establishing a clear title to land. The first phase of adjudication is a hydrographic survey to locate, quantify and date water uses within a stream system or underground aquifer. The second, or legal, phase of an adjudication starts with the filing of a lawsuit that names water right owners as defendants and ends with a court order that delineates the parameters and priority of each owner's water right. The process provides

## Agency Trust Funds

The Ferguson Act of 1898 designated about one-ninth of all land in the state as trust land to benefit certain public institutions. The legislation identified the beneficiaries of the trust land, dedicated the amount of land to be held in trust for each beneficiary and provided for a board made up of the public land commissioner, territorial governor and solicitor general of the territory to assign specific tracts of trust land to each beneficiary.

The act designated 500,000 trust land acres to benefit reservoirs and other irrigation works and 100,000 acres to fund improvements to the Rio Grande. These lands and the trust lands set aside for 19 other beneficiaries are managed by the State Land Office, which transfers the income from certain revenue-raising activities directly to the beneficiaries and deposits the revenue from activities that deplete the resource – such as mining – in the Land Grant Permanent Fund. That fund is invested by the State Investment Council and the investment income is distributed to the trust beneficiaries.

Irrigation Works Construction Fund. The Legislature created the Irrigation Works Construction Fund in 1955 to receive the funds from the trust land acres designated for reservoirs and irrigation works, as well as certain special appropriations. Under the administration of the Interstate Stream Commission, the monies are used to make loans to acequias, and, through contracts with irrigation and water conservancy districts, to individual water users for construction and rehabilitation of on-farm irrigation works. The Irrigation Works Construction Fund pays for technical assistance and design improvements for acequias through an annual contract with the Natural Resources Conservation Service of the U.S. Department of Agriculture. Other contracts with the Conservation Service provide for

watershed planning, agricultural water conservation demonstration projects, and snow surveys. The Irrigation Works Construction Fund is also a source for the non-federal cost-share required by the U.S. Corps of Engineers Acequia Program. Loans also have been made to county flood commissions for protection of irrigation lands and works. Other appropriations have been made for dam rehabilitation and the control of phreatophytes, non-native, high-water-using plants and shrubs. The Irrigation Works Construction Fund also funded the \$14 million payment to Texas ordered by the U.S. Supreme Court to compensate Texas for historic under-deliveries on the Pecos River. It has also been a major source of funding for the Pecos River Lease/Purchase Program aimed at acquiring water rights to improve deliveries to Texas.

Improvement of the Rio Grande Income Fund. Each year the Interstate Stream Commission prepares a plan and budget for projects to be funded by the Improvement of the Rio Grande Income Fund and submits it to the Governor. Ongoing projects include cooperative agreements with the U.S. Bureau of Reclamation for vegetation management in Elephant Butte and Caballo reservoirs, for water salvage in the Middle Rio Grande, and channel maintenance along the Rio Chama below Abiquiu Dam. Through cooperative programs with the U.S. Geological Survey, the fund pays for data collection, hydrologic studies and the evaluation of reclamation projects. The fund has been used to buy San Juan-Chama Project water to establish and maintain a sediment pool in Jemez Canyon Reservoir. Significant grants to the Middle Rio Grande Conservancy District from the fund covered the non-federal share of the Corrales Levee and San Acacia to Bosque del Apache Flood Control projects.

the water right owners with opportunities to challenge the state and each other and to negotiate. The Office of the State Engineer is involved in numerous adjudications, some of which are decades old.

Water management in New Mexico is further complicated by the scarcity of the supply and the eight interstate stream compacts. New Mexico is under pressure to meet its water delivery obligations to other states. Failure to comply can and often does result in litigation. For example, the U.S. Supreme Court in 1988 ordered New Mexico to pay damages to Texas for New Mexico's failure to meet its delivery obligations on the Pecos River and a court-appointed river master monitors New Mexico ongoing compliance.

Optimal management of New Mexico's water is dependent on good information and planning. Those needs have been highlighted both by the increasing demand placed on the limited resource by a growing population and by the added stress of a drought. Office of the State Engineer staff are developing more sophisticated tools for measuring and monitoring water resources, have been active in the development of regional water plans over the past few years, and in 2003 began and completed work on a comprehensive, statewide water plan.

The activities of the Office of the State Engineer and Interstate Stream Commission are financially supported with state general funds and income from state trust land. Although the income from the trust land varies, the agencies received a good portion of their funding in the 2005-2006 fiscal year from the two trust land funds: the Irrigation Works Construction Fund and the Improvements to the Rio Grande Income Fund. The trust lands, set aside under the Ferguson Act of 1898 along with trust lands for some 19 other beneficiaries, are managed by the State Land Office. This agency transfers some income directly to the agencies and the rest to the State Investment Council. The council invests the income generated through activities that deplete the resource – like mining – and the earnings on the investment go into the trust funds.

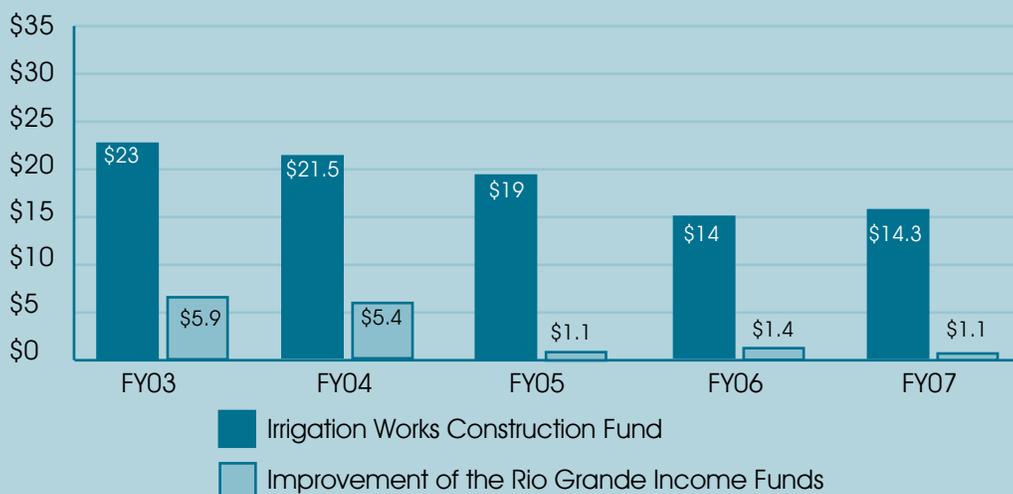
The dependency of the Office of the State Engineer and Interstate Stream Commission on these funds to meet recurring expenses and the resulting depletion of the fund balances has been brought to the attention of the executive and legislative branches. The agency must receive additional general fund support, the trust funds must be replenished, or both, for substantive and effective water administration to continue.



## Trust Fund Year-End Balances

FY03-FY07

In Millions

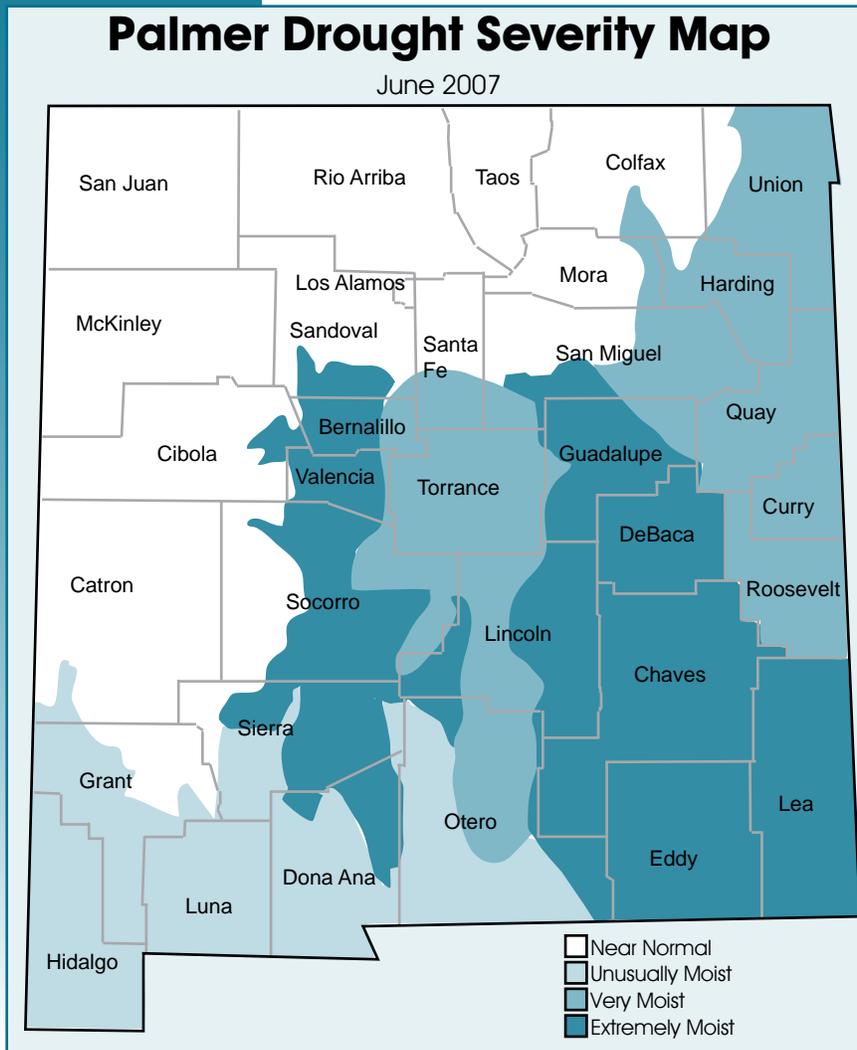




## State of the State's Waters

The water supply for the 2006-2007 fiscal year was much better than the preceding year. In July 2006, New Mexico was still in the depths of an extreme drought. The Palmer Drought Indices for the state all indicated “extreme” or, at best, “severe” drought. June 2006 had been the seventh excessively dry month in a row, and reservoir levels and stream flows were far below normal. Then, starting in July 2006, a strong monsoon season developed. The July-August period in 2006 was the wettest on record. August rainfall exceeded 5 inches in much of the state and exceeded 10 inches at a few stations. Flooding occurred in a number of places, and a flash flood and bank failure left the town of Hatch under several feet of water.

By mid-August 2006, drought conditions had lifted, and the south-central and southwestern parts of the state were (by the Palmer Drought Index) “moist” or “extremely moist.” New Mexico stayed “green,” with most of the state experiencing moist conditions, through the rest of 2006 and through mid-2007.



Winter precipitation was also generous, compared with recent drought years. Powerful winter storms blanketed much of the state in December 2006, building substantial northern snowpacks. Precipitation continued, but not at such high levels, throughout the winter. By the beginning of March 2007, New Mexican snowpacks ranged from 71 percent of average in the Gila, to 136 percent of average in the Canadian River Basin. The Rio Grande and Pecos river basins both had “average” snowpacks, but still many times greater than the snowpack in March 2006. Warm and dry spring weather eroded some of that snowpack, but wet weather returned in June, keeping New Mexico “in the green.”

Conditions in the Pacific Ocean are often predictive of New Mexico winter weather. El Niño conditions prevailed in the Pacific during the winter of 06-07, consistent with the relatively wet weather that New Mexico experienced. El Niño dissipated during early 2007, and by August 2007 forecasters predicted strengthening La Niña conditions for the following winter. La Niña, the evil twin of El Niño, tends to give New Mexico dry winters.

## Surface Water

Spring runoff in 2007 was much higher than the preceding year but still below average. The flows of the Rio Grande past Embudo during spring 2007 was more than twice as high as in 2006.

Spring runoff in 2007 was much improved over 2006 but was not exceptionally high. Surface water supplies for irrigation were better than in 2006, but New Mexico's large reservoirs still had not yet recovered from the drought, and farmers dependent upon these reservoirs still faced surface water shortages. The total amount of water stored in New Mexico reservoirs in June 2007 was still below the 30-year average for June.

On the Rio Grande, the Elephant Butte Irrigation District provided an allotment of 24 inches (compared with a full supply allotment of 36 inches). On the Pecos River, Fort Sumner Irrigation District and Carlsbad Irrigation District provided close to a full supply of surface water to water users. Despite a below-average spring runoff in the San Juan River watershed, full supply conditions were also projected in 2007 for San Juan surface water users.

## Groundwater

Generally, groundwater levels are less variable because aquifers are not strongly affected by annual or seasonal fluctuations in climate. Nevertheless, drought conditions can affect fractured rock aquifers common in mountainous areas and shallow alluvial aquifers along streams, and wells obtaining water from these sources become more reliable in wet years. However, away from lakes and streams, and in upland areas, groundwater can be deep and is less dependent on streams.

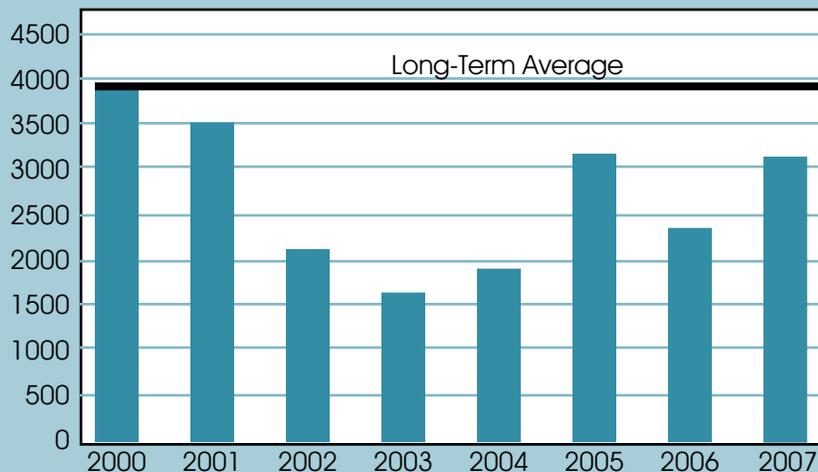
Water levels in many wells monitored in New Mexico continued trends evident over the last several decades. In the Estancia Basin and other closed basins in the southwestern part of the state and in Ogallala aquifer in eastern New Mexico, water levels continue to decline, primarily in response to pumping for irrigation, although water levels are rising in the western parts of Lea and Curry counties. Rising water level trends, generally associated with diminished pumping, also continued in some wells in the southern San Juan Basin. Water levels in wells near Albuquerque, Silver City and Las Cruces continue to decline in response to municipal and industrial pumping.

Long-term effects of the recent drought on some groundwater supplies may not be evident for some time. If below normal precipitation resume, increased reliance on groundwater pumping is likely to impact water levels in wells in many areas. Marginal domestic wells are the most likely to fail.



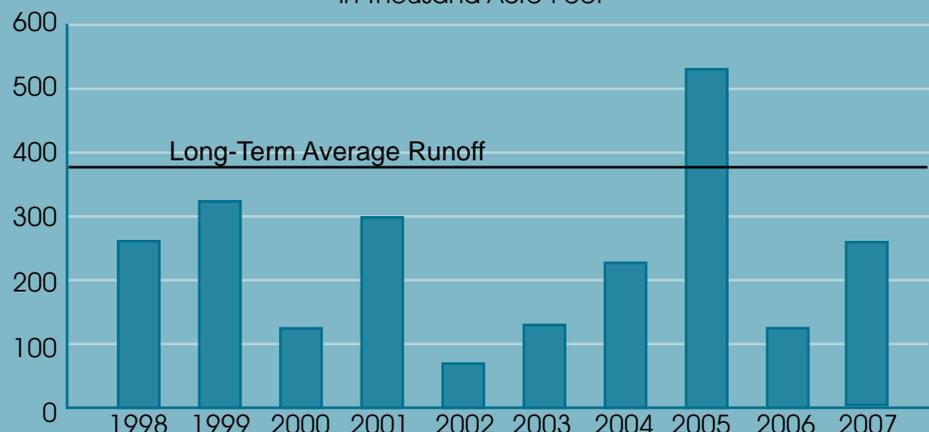
### Total Reservoir Storage

In Thousand Acre-Feet



### Rio Grande Spring Runoff at Embudo

In Thousand Acre-Feet





## Program Support

Program Support provides administrative and management support services to the Office of the State Engineer to allow for the smooth functioning of all other programs. The program has four bureaus – Finance, Budget Services, Information Technology Systems, and Human Resources – which handle the agency’s payroll, budget planning, contract preparation, fixed assets, accounting, procurement, property management and control, personnel management, and computer systems and communication systems development and support.

### Financial Services Bureau

The Finance Bureau is responsible for administering, tracking and reconciling all disbursements and accounts receivable for the agency. It is also responsible for administering the expenditures and receipts portion of the agency’s regional water planning efforts, Pecos River water rights leases and purchases, the numerous loans and grants issued under the Dams and Ditch Rehabilitation Program, federal grants, special projects and capital projects. This bureau coordinates all fleet functions to ensure compliance of all transportation rules and regulations, coordinates maintenance, maintains an inventory of leased vehicles and authorize use of the gasoline credit cards. This bureau also administers the agency’s procurement function, which includes travel and training, capital outlay, fixed assets, agency vehicles, furniture, computers, office/field supplies and office space rentals.

### Budget Bureau

The Budget Oversight Bureau has responsibility over budget administration, contract administration, property management, and fixed asset control.

Specific budget-related activities of the bureau include coordination of the development of the agency’s annual operating budget as well as the annual appropriation request, coordination of the development of the agency’s capital improvement plan and annual capital outlay appropriation request, tracking of agency revenue and expenditure levels in relation to capital and operating budgets, and facilitation of the development and processing of budget adjustment requests.

Contract activities of the bureau include the tracking and processing of professional service contractual agreements, joint power agreements, and joint funding agreements; disbursement of payments for services provided under agency agreements; and coordination and processing of all agency purchases.

Property management activities include oversight of the agency’s state-owned and leased facilities and coordination of lease agreements, as well as oversight of the agency’s compliance with occupational, fire and safety codes.

Finally, the bureau maintains the agency’s fixed asset inventory, which includes the tracking and monitoring of both the status and location of all capital assets of the Office of the State Engineer.

### Human Resources Bureau

The mission of the Human Resources Bureau is to develop, deliver and continuously improve the value of human resource services provided to the agency, its programs and business partners.

#### Director

Herman Garcia

#### Financial Services Bureau Chief

Dinah Sanchez

#### Budget Bureau Chief

Curtis Eckhart

#### Human Resources Bureau Chief

Lynette Rodriguez

#### Information Systems Technology Bureau Chief

Renée Martinez

This is accomplished by providing not only human capital needs but also by ensuring the services provided are sound, based on integrity, and of the quality and breadth necessary for the agency to achieve its short- and long-term objectives. Maximizing employee performance is not the only goal; productivity and job satisfaction are equally important. It is essential to develop a workforce that is dedicated to the agency's mission, strengthened by diversity, and able and willing to meet and exceed the highest standards of conduct and performance.

The staff of the bureau is a customer-oriented team that provides day-to-day support to management and staff by recruiting, employing, retaining, and developing employees; maximizing excellent employee relations; and proficient consultation and problem resolution on a wide array of human resource topics.

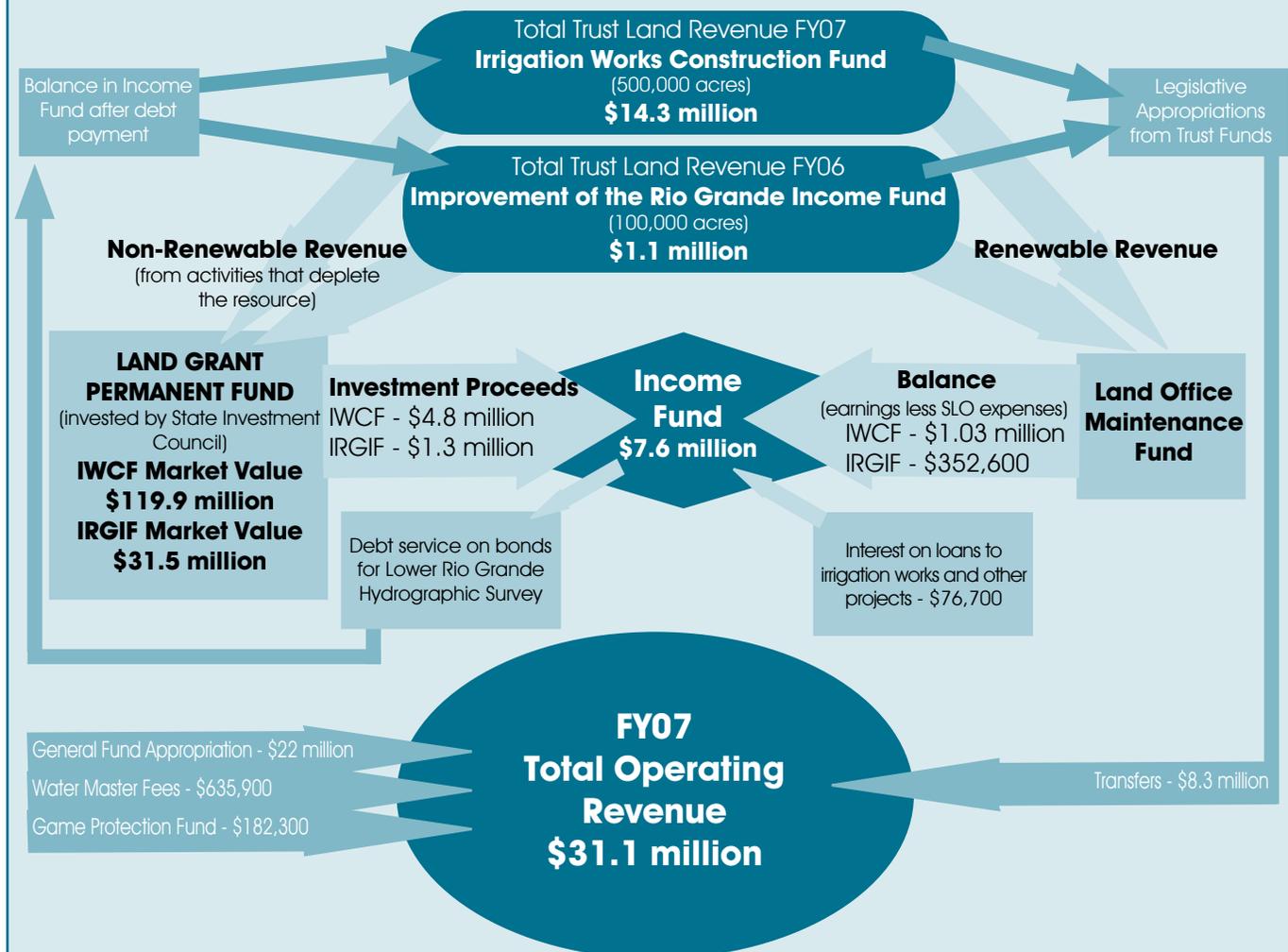
## Information Technology Systems Bureau

The Information Technology Systems Bureau designs new computer applications and provides technical support for the wide array of computer technology used of the Office of the State Engineer. The agency demand and need for new and enhanced information technology, systems and services is high and growing. The variation of information technologies used by the agency ranges from PC-based hydrographic modeling software and wireless (satellite and radio) water meter data-collection systems to the sophisticated water rights document and transaction processing system of the Water Administration Technical Engineering Resource System, or WATERS. The work activities in the agency



## State Engineer Revenue Flow Chart

July 1, 2006 - June 30, 2007





## Employees of the Year 2006-2007

Christina Malessa  
Interstate Stream Commission

John Buchser  
Program Support

Diane Flock  
Christopher Harris  
Litigation and Adjudication Program

Judy Leyba  
Cheri Vogel  
Shawn Williams  
Water Resources Allocation Program

### Albuquerque

Marsha Vernon  
WATERS

Jalayne Spivey  
Water Resources Allocation Program

### Roswell

Juan Hernandez  
Water Resources Allocation Program

### Deming

Jennifer Galindo  
Water Resources Allocation Program

### Las Cruces

David Allison  
Water Resources Allocation Program

### Santa Fe

Ray Acosta  
Linda Tenorio  
Interstate Stream Commission

Jerome Baros  
Program Support

Cruzita Romero  
Litigation and Adjudication Program

are time-, data- and document-intensive. The State Engineer intends to position information technology as a strategic and tactical asset to advance the strategies of the agency.

To support Active Water Resource Management activities and to make the massive amount of water rights information managed by the agency more accessible to employees and the public, the bureau has made significant enhancements to the WATERS, eWATERS (web-based version of the WATERS application), and document-imaging system. The enhancements to these mission-critical information systems further streamline the process to capture and manage water rights information for priority basins as established by the State Engineer.

The following enhancements to information systems have been completed or are in process:

- An interface between WATERS and the water rights adjudication system, WRATS, was developed and implemented to streamline the work activities associated with the Lower Rio Grande adjudication. The agency plans to expand the capabilities of the WATERS-to-WRATS interface to support additional basin adjudication projects.
- New Domestic Well Rules and Regulations were incorporated into WATERS and eWATERS to accommodate changes in the permitting process.
- A conversion of the map of point-of-diversion locations to a standard geographic coordinate system is underway. The planned implementation date for this enhancement is October 2007.

The agency's website, <http://www.ose.state.nm.us>, is a comprehensive source of information on New Mexico's water resources. The website is regularly updated with important information, including new hot topics, current events, news releases, job opportunities, meeting notices and minutes, basin-specific rules and regulations, regional water plans, and court orders for active adjudications. Two new features, both linked to the home

## Statement of Activities for the Year Ending June 30, 2007

### EXPENSES

#### Current:

|   |                     |
|---|---------------------|
| Personal services and employee benefits | \$22,682,135        |
| Contractual services                    | \$8,265,106         |
| Other                                   | \$11,869,776        |
| Interest expense                        | \$29,228            |
| Depreciation expense                    | \$748,809           |
| <b>TOTAL EXPENSES</b>                   | <b>\$43,595,054</b> |

### PROGRAM REVENUES

|                                    |                     |
|------------------------------------|---------------------|
| Charges for services               | \$41,886            |
| Operating grants and contributions | \$10,981,368        |
| Capital grants and contributions   | \$1,920,937         |
| <b>TOTAL PROGRAM REVENUES</b>      | <b>\$12,944,191</b> |

### NET PROGRAM EXPENSE

**-\$30,650,863**

### GENERAL REVENUES

|  |                     |
|--|---------------------|
| General Fund appropriation   | \$21,042,700        |
| Special appropriations   | \$25,128,000        |
| Severance tax and General Obligation bonds proceeds appropriations | \$8,732,256         |
| Reversions   | -\$499,523          |
| <b>TOTAL GENERAL REVENUES</b>                                      | <b>\$54,403,433</b> |

### OTHER FINANCING SOURCES (USES)

|   |                     |
|---|---------------------|
| Interagency transfers in                    | \$10,946,371        |
| Interagency transfers (out)                 | -\$413,867          |
| <b>TOTAL OTHER FINANCING SOURCES (USES)</b> | <b>\$10,532,504</b> |

|   |                      |
|---|----------------------|
| Change in net assets  | \$34,285,074         |
| Net assets, beginning, as originally reported                     | \$123,586,399        |
| Restatement   |                      |
| Adjustment of capital assets                                      | \$4,046,380          |
| Adjustments to fund balances not recorded in FY06 government-wide | \$8,959,457          |
| Net assets, beginning, as restated                                | \$136,592,236        |
| <b>Net assets, ending</b>   | <b>\$170,877,310</b> |

page were added to the website to help users navigate the site more freely: the site map and the “Help Me Find...” feature.

The website also provides the public with access to selected information managed within the WATERS database. Users are able to look up the well and surface-water information that has been abstracted into the WATERS database. Users may view the actual images of water rights documents using iWATERS.

The use and application of geospatial information technologies continue to be essential to the work activities of the agency. The Office of the State Engineer led a collaborative effort among local governments, state agencies, and federal entities to record and process digital aerial imagery for the entire state of New Mexico. The State Engineer provided the initial project funding that formed the catalyst for contributions from nearly 15 organizations to implement this multi-million dollar acquisition. The aerial imagery has been a valuable tool toward accurately mapping and analyzing water resources. In addition, this information has been provided to the public free of charge.



## Statement of Net Assets

June 30, 2007

### ASSETS

#### Current Assets

|                               |                     |
|-------------------------------|---------------------|
| Cash and cash equivalents     | \$48,017,508        |
| Receivables                   | \$175,374           |
| Prepaid expense               | \$1,174             |
| Escrow deposits               | \$337,197           |
| Due from other state agencies | \$30,084,710        |
| Due from federal government   | \$1,928,487         |
| Investments                   | \$15,357,110        |
| <b>Total Current Assets</b>   | <b>\$95,901,560</b> |

#### Noncurrent Assets

|                                     |                      |
|-------------------------------------|----------------------|
| Loans receivable, net of allowance  | \$3,456,585          |
| Capital assets, net of depreciation | \$78,636,208         |
| <b>Total Assets</b>                 | <b>\$177,994,353</b> |

### LIABILITIES

#### Current liabilities

|  |                    |
|--|--------------------|
| Accounts payable   | \$3,939,687        |
| Accrued salaries and benefits payable                      | \$900,635          |
| Compensated absences (expected to be paid within one year) | \$935,995          |
| Due to other state agencies                                | \$19,094           |
| Due to state General Fund                                  | \$1,045,728        |
| Revenue bonds payable                                      | \$254,913          |
| Funds held for others                                      | \$20,990           |
| <b>Total liabilities</b>                                   | <b>\$7,117,042</b> |

### NET ASSETS

|   |                      |
|---|----------------------|
| Investment in capital assets                                  | \$78,636,208         |
| Restricted for:   |                      |
| Expenditure in future years                                   | \$56,135,387         |
| Pecos river basin land management                             | \$107,562            |
| Ute Dam operating/construction                                | \$131,601            |
| Loans   | \$3,456,585          |
| Investigation and construction of water conservation projects | \$19,011,262         |
| Improvement and increase of surface flow of Rio Grande River  | \$2,462,056          |
| Water rights adjudications                                    | \$6,523,116          |
| Debt service requirements                                     | \$269,966            |
| Unrestricted net assets                                       | \$4,143,567          |
| <b>Total net assets</b>                                       | <b>\$170,877,310</b> |

### TOTAL LIABILITIES AND NET ASSETS

**\$177,994,353**



## Public Information/Public Outreach

Public information and public outreach efforts continued to support agency initiatives in the 2006-2007 fiscal year, intensifying with the agency's 100th anniversary in 2007. The anniversary celebration was aligned with Governor Richardson's proclamation of 2007 as the Year of Water.

To kick-off the "Century of Service" events, the public information staff held a news conference on January 3, 2007, with State Engineer John D'Antonio, other key staff, Lt. Governor Diane Denish and other officials. The news conference was an opportunity for the agency to unveil a new commemorative logo designed for use by the agency for the remainder of 2007.

At the press conference, D'Antonio said the agency is committed to build on the key milestones of the past 100 years, which include execution of interstate stream compacts and adoption of rules and regulations for Active Water Resource Management. Key goals of the State Engineer for this coming year included continued progress to implement Indian water rights settlements, adjudications around the state, and making strides with the WATERS database.

Communication efforts also supported progress on the Active Water Resource Management (AWRM) initiative. Progress was made on implementation of a comprehensive communication plan for sharing information with the general public. Public outreach efforts began in the Lower Rio Grande in November 2006, with two public meetings – one in Las Cruces and one in Truth or Consequences. Then, public "listening sessions" were held in Sunland Park, Truth or Consequences, and Las Cruces in March 2007 to gather information for a public open house in Las Cruces on April 24, 2007. Both the State Engineer and the Interstate Stream Commission director attended the open house.

Office of the State Engineer staff and Interstate Stream Commission staff met one-on-one with about 140 people to answer questions and provide information on AWRM, measuring and metering, domestic wells, compact issues, water rights, legal issues, conservation, water quality, and the hydrology of the Lower Rio Grande Basin.

AWRM public outreach efforts also took place in the Lower Pecos Basin, with public meetings held to get input on district-specific rules and regulations in Carlsbad, Roswell, and Ruidoso in December 2006.

Communication staff worked with Interstate Stream Commission Rio Grande Bureau staff to launch a groundbreaking ceremony for a new Los Lunas Silvery Minnow Refuge on April 24, 2007. Minnow will live and thrive in a \$1.2 million cutting edge facility designed for breeding and raising the fish in captivity. Fourth graders from the Los Lunas elementary school sang a special tribute to the silvery minnow followed by a ground blessing ceremony performed by Pueblo of Isleta Governor Robert Benevides. Dignitaries



*The agency in 2007 won three Cumbre Awards from the New Mexico Chapter of the Public Relations Society of America.*

### Planning and Communication Division Director

Karin Stangl, APR

attending included U.S. Congresswoman Heather Wilson, New Mexico Attorney General Gary King, Interstate Stream Commissioner Jim Dunlap, Los Lunas Mayor Louis Huning, and Los Lunas farmer Janet Jarrat. Officials then donned silver hard hats and lifted silver shovels to turn the first earth for the construction of the facility, scheduled for completion in late fall 2007.

Another groundbreaking ceremony took place in the Carlsbad area for installing the Seven Rivers pipeline for augmentation wells to implement the Pecos River water rights settlement. Officials attending included Interstate Stream Commission representatives and the Pecos Compact commissioner, as well as representatives from the Carlsbad Irrigation District, the Pecos Valley Artesian Conservancy district, and former state Representative Joe Stell.

“The Water Haulers” was the title of a video documentary produced by KNME-TV, jointly funded by the Navajo Nation and the Healy Foundation to document the daily challenge the Navajo people face to get water to their homes and to generate support and funding to implement the Navajo Nation water rights settlement agreement. This 26-minute program aired in New Mexico in January 2007 and is scheduled for airing on other PBS stations around the country later this year.

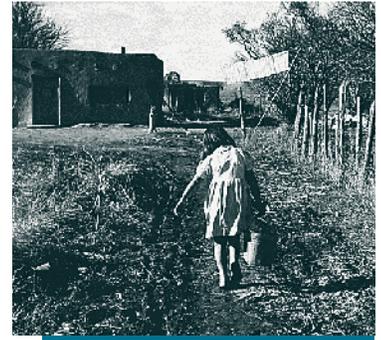
For the fourth year in a row, the Office of the State Engineer this year received Cumbre Awards of excellence from the New Mexico Chapter of the Public Relations Society of America. The Cumbre Awards is an annual competition that recognizes public relations professionals and their respective organizations for their excellence in producing effective campaigns and tactics.

The Planning and Communication Division received a First-Place Gold 2007 Cumbre Award for the “Water for a Nation” video program in the public relations visual presentation tactics category. The video program was designed to focus on why funding is needed to implement the Navajo Nation water rights settlement agreement. The program spotlights the fact that many Navajos who live in western New Mexico are without basic water service for cooking, drinking, or taking a shower. Often, water must be hauled to remote areas by barrels on the back of trucks. The video program was produced in cooperation with Cordova Communications of Albuquerque.

Also, the division won a Second-Place Silver 2007 Cumbre Award for the public outreach campaign “Active Water Resource Management in the Lower Rio Grande Basin” in the public relations campaigns category. This public outreach campaign supported the State Engineer’s efforts to manage future droughts and climate variability through the Active Water Resource Management initiative. The Lower Rio Grande Basin is one of seven basins around the state made a priority by the State Engineer.

In addition, the division won a Second-Place Silver 2007 Cumbre Award for the 2006 State Water Plan Progress Report in the public relations publications and brochures tactics category. This report detailed the progress made on 98 implementation strategies identified in New Mexico’s First State Water Plan, completed in 2003. The report was produced in cooperation with GrafText of Santa Fe.

In fiscal year 2006-2007, the Office of the State Engineer and Interstate Stream Commission continued to expand outreach efforts. The agency continued to mail quarterly issue briefs to legislators, municipal and county leaders, special interest groups, and opinion leaders around the state to better inform them about the State Engineer’s and Commission’s policies and initiatives. These issue briefs not only promote greater awareness of the role of the Office of the State Engineer and Interstate Stream Commission in funding better water management programs but also generate feedback to help develop successful strategies for expanding outreach efforts in future.



*Lt. Governor Diane Denish speaks at the “Century of Service” news conference.*



## Legislation and Policy

During the 2007 legislative session, designated the Year of Water by Governor Richardson, the agency tracked more than 135 water-related bills. Of those bills, only 15 made it to the governor's desk for signing.

One of the most significant items to make it through the Legislature and be signed into law by Governor Bill Richardson would put \$15 million into the Water Trust Fund for water projects around the state. This item was attached to House Bill 2 (General Appropriation Act). A total of \$4 million for two proposals – one to create a statewide water-leak detection program and a second to fund innovative water conservation projects – was appropriated through Senate Bill 827. The agency asked for \$10 million for both projects. The agency also received \$831 thousand in funding for 10 new water masters for the agency's Active Water Resource Management initiative and \$150 thousand in new funding for an office in the northeastern part of the state.

The agency sponsored four pieces of legislation with two of the four making it to the governor's desk. The agency bills that became law:

- Senate Bill 330/House Bill 886: Strategic Water Reserve Construction. This bill, as amended, will allow the Interstate Stream Commission to use the strategic water reserve funding to develop and construct infrastructure related to the strategic water reserve purposes.
- Senate Bill 847/House Bill 580: State Engineer Compliance Order Enforcement. This bill, as amended, will govern the issuance of compliance orders by the State Engineer in response to alleged violations of the water code, conditions of permits and licenses issued by the State Engineer, and court orders adjudicating water rights. Amendments to the legislation clarify the language and intent of the statute and establish clear procedures for issuing and challenging compliance orders.

The agency legislation that did not make it to the governor:

- Senate Bill 900/House Bill 680: Transportation Commission Water Notices. This bill would have exempted the state Department of Transportation and its contractors from the requirement of publication and hearing for water rights applications to temporarily change the location of use, method of use, or point of diversion of water rights for certain public construction projects when the State Engineer determined the temporary change would not be detrimental to existing, valid water rights.
- Senate Bill 1090/House Bill 978: State Engineer Jurisdiction over Dams. This bill would have provided for the safe operations of dams by requiring the submission of detailed plans for both the design and operations of the dam. The bill would also have updated state statute on certain flood and erosion control dams by providing that either detailed plans or a notice of intent be submitted to the State Engineer.

Other water-related funding that made it through the 2007 legislative session:

- \$10 million for tribal water rights settlements for the Navajo Nation and the Aamodt, and the Taos water rights settlements
- \$12 million for a water pipeline in the eastern Navajo Nation
- \$1 million for a water study of the Salt Basin in southern New Mexico
- \$1 million for planning, designing, building and acquiring rights of way for the Ute pipeline in eastern New Mexico
- \$500,000 for the Strategic Water Reserve

### Water Resources Allocation Program Director

John T. Romero, PE

Legislators also allocated \$16.1 million for Interstate Stream Commission projects, including \$1.5 million to fulfill New Mexico's obligations under a Pecos River settlement with Texas. Under that agreement the Commission must purchase 18,000 acre-feet of water from agricultural lands along the lower Pecos River to fulfill Pecos River compact obligations to Texas. This amount was half of the amount requested. The Interstate Stream Commission also received \$55,000 in recurring regional water plan funding, as well as \$30,000 for regional planning in the Estancia Basin.

Other significant legislation that was proposed, but died during the regular session:

- The House killed a Senate bill that would have required new subdivision developments to prove adequate water before county commissions could give final approval. (Senate Bill 693)



## Water Committees

### WATER TRUST BOARD

The New Mexico State Engineer is the chairman of the Water Trust Board. The Water Trust Board was established in 2001 to recommend water projects to the state Legislature for funding from the Water Project Fund. These water projects, paid for with grants or loans, must be for water storage, conveyance, or delivery of water to end users; implementation of federal Endangered Species Act of 1973 collaborative programs; restoration and management of watersheds; flood prevention; or water conservation.

In 2006, the Water Trust Board recommended and the Legislature provided \$23.4 million to 25 water projects throughout the state. The 2006 projects recommended by the Water Trust Board based on 30 applications from entities in 18 different counties from all over the state.

#### Members:

- State Engineer John D'Antonio, chairman
- Katherine Miller, NM Department of Finance and Administration secretary, co-chair
- William Fulginitti, NM Municipal League executive director, vice chairman
- Trudy Healy, irrigation/conservancy districts (surface water), treasurer
- Denise Fort, environmental community, secretary
- Preston Stone, soil and water conservation districts
- Thomas Overstreet, irrigation/conservancy districts (groundwater)
- Bruce Thompson, NM Department of Game and Fish director
- Paul Gutierrez, NM Association of Counties executive director
- William Sisneros, NM Finance Authority chief executive officer
- Joanna Prukop, NM Energy, Minerals and Natural Resources Department secretary
- Joseph David Ortiz, acequia water users
- Joe Shirley, Jr., Navajo Nation president
- I. Miley Gonzalez, NM Department of Agriculture director
- Ron Curry, NM Environment Department secretary

### GOVERNOR'S DROUGHT TASK FORCE

In May 2003, Governor Richardson established the State Drought Task Force through Executive Order 2003-19. The 12-member Task Force is chaired by the State Engineer and includes the cabinet secretaries from the state departments of Environment, Finance and Administration, Agriculture, Tourism, Economic Development, Indian Affairs, and Energy, Minerals and Natural Resources. Other members are the executive director of the New Mexico Finance Authority and the directors of the Interstate Stream Commission, Office

of Emergency Management, and Governor's Office of Policy and Planning.

The Task Force is charged with monitoring drought conditions statewide and with making drought-mitigation recommendations to the governor whenever appropriate but at least annually. Throughout the year, the Task Force produces a monthly drought status report that has become resource to local and state managers and the news media. The report is published on the Drought Task Force website.

In December 2006, the Task Force submitted a proposal to the governor for enhanced drought monitoring capabilities. The Governor included the request for \$1.1 million in the executive budget recommendations submitted in the 2007 regular legislative session. In February 2007, the Task Force submitted the Task Force message to the Legislature as background information on drought issues and concerns.

#### Members:

- State Engineer John D'Antonio, chairman
- Ron Curry, cabinet secretary, NM Environment Department
- Katherine Miller, cabinet secretary, NM Department of Finance and Administration
- Estevan López, director, Interstate Stream Commission
- Joanna Prukop, cabinet secretary, NM Energy, Minerals and Natural Resources Department
- I. Miley Gonzalez, director, NM Department of Agriculture
- Tim Manning, director, NM Office of Emergency Management
- Benny Shendo Jr., cabinet secretary, NM Department of Indian Affairs
- William Hume, director, Governor's Office of Policy and Planning
- Fred Mondragon, cabinet secretary, NM Economic Development Department
- Mike Cerletti, cabinet secretary, NM Department of Tourism.
- William C. Sisneros, chief executive officer, NM Finance Authority

### BLUE RIBBON TASK FORCE

The Blue Ribbon Task Force is a group that investigates and engages in discussions regarding current water policies and laws. The Task Force advises the State Engineer, Interstate Stream Commission director, and any other relevant state agencies regarding water policies and laws. The Task Force also provides its recommendations to the governor on an annual basis every November and provides copies to the State Engineer and Interstate Stream Commission director. The chairman is Brian Burnett, president of the civil engineering firm BHI.



- The House defeated a bill to provide \$1 million for a new Office of Water Infrastructure Development, designed to be a central place where communities could seek funding for their water system improvements. Currently water system boards seek funding through state grants and loans and federal programs and from state appropriations in several different offices. (House Bill 781)

- Legislators rejected several bills to fund the Middle Rio Grande hydrographic study in preparation for the eventual adjudication of the water rights in the area. The largest of the failed appropriations was \$30 million.



1941 – An early morning mist clouds the view of the mountains behind the Rio Pueblo de Taos in the Taos Valley. (Irving Rusinow for the U.S. Department of Agriculture, National Archives)

## Native American Water Liaison



The Native American Water Resources Program, created by the governor in 1995, is aimed at promoting a spirit of coordination, communication, and good will between tribal and state governments as separate sovereignties. Under Governor Bill Richardson's administration, a statement of policy and process was signed with the 19 New Mexico pueblos to work in good faith to amicably and fairly resolve issues and differences in a government-to-government relationship. This policy and process also extends to other tribes and nations within New Mexico.

Rights to water on Indian grant lands and reservations in New Mexico fall within one or a combination of three different doctrines: pueblo historic use water rights, federal reserve water rights, or water rights established under the laws of the state of New Mexico. Water rights administration, litigation and negotiation leading to a settlement of rights to water are exceedingly complex when Native American water rights are involved.

The Native American Water Liaison deals with matters related to adjudication of tribal and pueblo water rights, negotiations regarding these rights, and assistance to individual tribes and pueblos. The Liaison's role is to advocate equal protection of all water users, emphasizing conservation and the development of feasible alternative water supplies. An important goal is to resolve disputes between the state of New Mexico and Indian pueblos, tribes, and nations, without costly litigation. While the State Engineer began adjudicating water rights on tributaries to the state's major rivers more than 30 years ago, the water entitlements for most of the state's 22 Indian pueblos, tribes, and nations have not been quantified.

Two major Indian water rights settlements were signed in 2006. The Aamodt Water Rights Settlement, one of the longest running settlements in the federal court system, was signed May 3, 2006, at the State Capitol Building. Shortly thereafter the Taos Pueblo Water Rights Settlement (formerly the Abeyta Settlement) was also signed at a ceremony hosted by Taos Pueblo. Although these significant milestones have been reached at a local level, a significant amount of work remains for these settlements to receive federal legislation and funding. Following the signing of these settlements the New Mexico parties moved the process to Washington, D.C., where well-received presentations were given to congressional and other federal officials.

The Native American Water Liaison is participating in several ongoing issues: the Abousleman case on the Rio Jemez; government-to-government consultation with the Pueblo of Zuni related to Zuni Salt Lake; and the Middle Rio Grande projects, such as the Endangered Species Act Collaborative Program (including restoration and silvery minnow habitat issues).

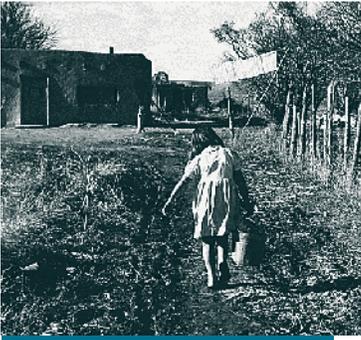
Outreach to the pueblos, tribes and nations, is an on-going process in efforts to better the relations between the state and Native American governments. The Native American



*Pojoaque Pueblo Governor George Rivera accepts a water jar from the Native American Water Liaison during the 2007 state legislative session.*

**Native American  
Water Liaison**

Myron Armijo



Water Liaison will continue to coordinate the quarterly State-Tribal Water Institute in an effort to encourage involvement from the pueblos, tribes and nations.

As part of the efforts tied to Governor Richardson's proclamation of 2007 as the Year of Water, the Native American Liaison and the state Indian Affairs Department with concurrence from the Governor's

Office recognized all 22 tribes, pueblos and nations on their accomplishments on water issues. The tribes, pueblos and nations involved in water settlements were presented with a traditional Native American water jar signifying this major milestone. Other tribal communities received a certificate recognizing the efforts put forth by each community to address its water issues.

The Native American Water Liaison continues to be involved with many of the agency's programs and bureaus to address issues and concerns by the tribes, pueblos and nations. For example, the Liaison has worked with the Middle Rio Grande Bureau on projects on the river and assisted the State Engineer Water Use and Conservation Bureau with legislation on water planning. The Liaison has also worked with several pueblos to resolve issues with acequia associations.

# Water Resources Allocation Program



The Water Resources Allocation Program is primarily 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 law, and regulate and control diversions. Staff also inventories water resources, monitors water use, and cooperates 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. In addition to the Water Rights Division, the Water Resources Allocation Program also includes the Hydrology, Water Use and Conservation and Dam Safety bureaus, and the WATERS (Water Administration Technical Engineering Resource System) project. This program is responsible for populating the WATERS database with all the individual water rights files within the state.

Under New Mexico water law, all ground and surface waters belong to the public and are subject to appropriation under the Doctrine of Prior Appropriation, a constitutional provision that says earlier appropriations have priority over later appropriations.

## Water Rights Division

The Water Rights Division administers water rights throughout the state of New Mexico. The division has district offices in Albuquerque, Roswell, Deming, Las Cruces, Aztec and Santa Fe. In addition, the Cimarron water master maintains an office in Cimarron.

Anyone wanting to use either surface water or groundwater in New Mexico must have a permit from the State Engineer. Before granting a permit for a new appropriation or to change the place or purpose of use of existing water rights, state law requires the State Engineer determine the proposed appropriation or proposed change will not impair existing rights, will not be contrary to the conservation of water within the state of New Mexico, and will not be detrimental to the public welfare of the state. The law also requires the applicant publish legal notice of the purpose of the application in a newspaper to provide anyone with a legitimate objection the opportunity to protest the application.

During fiscal year 2006-2007, the employees of the Water Rights Division processed 2,413 surface water and 17,132 groundwater documents pertaining to the appropriation and use of surface water and groundwater. Most surface water in the state has been considered fully appropriated since March 29, 1907, so most recent water rights activity has involved primarily groundwater. The District II Office in Roswell, responsible for licensing all well drillers in the state, issued 13 new and 145 amended or renewed licenses this fiscal year.

The backlog of pending water rights applications varied over the year, from a low of 599 applications in June 2007 to a high of 807 applications in July 2006. The number of pending applications at the end of last fiscal year was 599.

During this fiscal year, the Water Rights Division was actively involved in Active Water Resource Management (AWRM), partially in response to continuing drought conditions throughout the state. AWRM is a program to conjunctively manage both groundwater and surface water within river basins. Water Rights and WATERS personnel played an ac-

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John T. Romero, PE

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### WATERS Program Manager

Richard DeSimone



tive role on interdepartmental teams formed by the State Engineer to implement AWRM in areas of the state hardest hit by the ongoing drought.

Water Rights Division personnel were actively involved in developing district-specific rules and regulations to administer water during times of shortage for the protection of senior water rights. Also Water Rights Division staff worked on new Groundwater Rules and Regulations, expected to be adopted by the State Engineer this fiscal year. WATERS personnel channeled their efforts toward abstracting and imaging water rights documents into the WATERS database in support of the AWRM initiatives.

WATERS and Water Rights Division staff continued to work on converting paper water rights records into WATERS. New applications are being directly entered into the system, and resources are being dedicated to input the thousands of existing records that must be organized, abstracted and entered into the database. Information from priority areas is being entered first to provide the State Engineer with the information and the tools necessary to administer water. Those priority basins are the Lower Pecos, Lower Rio Grande, San Juan, Rio Gallinas, Mimbres, Rio Chama and Nambe-Pojoaque-Tesuque. When a basin's files are completely abstracted into WATERS, a complete listing of every water right within that basin will be available to the water rights experts and the general public at the touch of a button. A complete inventory of water rights within the basin – by amount, priority date, place and purpose of use, etc. – will be immediately available. This information and the speed it can be accessed will be invaluable when processing water rights applications and changes of ownership. Considerable effort will be required to maintain the WATERS database in a current condition. Entering information as transactions occur is a priority for the Office of the State Engineer.

### District Activity

The District I Office in Albuquerque administers underground and surface waters in the Middle Rio Grande, Estancia, Sandia, Bluewater, Gallup, and Upper Tularosa basins. Because of population growth and concentration in the middle Rio Grande area of the Rio Grande Underground Wa-

## Active Water Resource

In response to continuing drought and climate variability in New Mexico, the Office of the State Engineer has adopted general rules and regulations for administering Active Water Resource Management. The statewide rules, finalized in December 2004 after a public hearing, provide the tools to move forward with priority administration to help the state be ready for future drought cycles and variability in climate, both wet years and dry years. These tools include measuring and metering, implementing district-specific rules and regulations, creating water master districts and appointing water masters, and developing water master manuals. While these tools are being developed, agency staff continues to encourage and facilitate shortage-sharing agreements among water users in the various basins around the state.

Under AWRM, the State Engineer encourages voluntary agreements among water users, such as shortage sharing, rotation, and water banking. The program acknowledges the need for priority administration, under which junior water-right holders can be cut off, but considers it a measure of last resort. Typically, senior water-right holders include Native Americans, acequias, and agricultural users. Municipalities and industrial, residential, and recreational water users tend to hold junior rights. Priority administration is already enforced on the Cimarron River and the Rio Costilla.



Staff respond to questions at an open house workshop in Las Cruces.

ter Basin, the District I Office processed more domestic well applications than any other area of the state. This fiscal year, the domestic well technicians issued 2,356 permits.

On the non-domestic side, the first and foremost focus of the District I Office continued to be the processing of applications that primarily move water rights from one place and use to another place and use. During the fiscal year, District I saw an increase in the number of applications to transfer water rights from agriculture to urban and industrial uses. The number of surface water declarations filed in the office also greatly surpassed previous years. To better serve and provide administrative support to water users of the Middle Rio Grande, a one-page simplified declaration form was developed and made available to declarants within the Middle Rio Grande Conservancy District. Staff also handled a high number of applications in the Estancia Underground Water Basin. As those towns and cities grow, interest in water rights purchases and transfers is increasing. Results of annual well measurements in the Estancia Basin, a monitoring project in cooperation with the U.S. Geological Survey, are also useful to better administer the basin's guidelines and its critical management areas.



## Management Progress

The State Engineer has targeted seven areas of critical concern around New Mexico to begin implementation of Active Water Resource Management: the San Juan River, Rio Galinas, Rio Pojoaque, Rio Chama, Mimbres River, Lower Rio Grande, and Rio Hondo/Rio Peñasco tributaries in the Pecos River.

Considerable progress has been made to date. Teams were organized to implement AWRM in priority basin areas and water masters were hired for all seven areas. District-specific rules and regulations are 90 percent completed for the Lower Rio Grande and the Lower Pecos basins. Eight new water masters were hired in the last two years, and 10 additional water masters will be hired thanks to funding from the Legislature in 2007. Metering in the Lower Rio Grande is projected to be completed by December 2007. Also, a district court decision affirmed the State Engineer's authority to administer water rights and to do so prior to the completion of adjudication.

Public outreach efforts continued to support the agency's implementation of the Active Water Resource Management initiative. In fall 2006, to support adoption of district-specific rules and regulations, the State Engineer held facilitated public meetings in Carlsbad and Roswell to support efforts in the Lower Pecos Basin and in Las Cruces and Truth or Consequences to support efforts in the Lower Rio Grande.

In March 2007, three "listening sessions" were held in Sunland Park, Truth or Consequences, and Las Cruces to gather information for an open house workshop held in Las Cruces in April 2007.

That workshop featured one-on-one access to agency experts as well as the State Engineer and Interstate Stream Commission director. More than 140 people attended the well-publicized workshop, which featured information on hydrology, domestic wells, compact issues, water rights, legal issues, conservation and water use, as well as Active Water Resource Management and other topics. The New Mexico Economic Development Department also hosted a table on projected growth in the Lower Rio Grande area.

Renewed national interest in natural resource extraction has resulted in many new applications to drill exploratory and monitoring wells, mostly in the Bluewater, Gallup, and western Rio Grande underground basins. Uranium recovery, oil and gas exploration, coal mining, electricity generation and biofuel plants often require multiple permits, so District I worked cooperatively with other state regulatory agencies and well as OSE's Hydrology Bureau.

The marriage of the geographic information system, or GIS, and WATERS is proving to be a good match. The four-person District I Water Rights Abstract Section has vastly increased efficiency, partly by checking incoming documents for quality. Manual entries of declarations and transfers on paper maps are recorded simultaneously into geo-databases. Retroactively, the section is taking on the abstracting of blanket permits belonging to municipalities, utilities, and irrigation districts. The abstracting of historical surface water declarations and adding them to the ArcMap GIS coverage is an ongoing work-in-progress.



The **District II** Office has the responsibility of administering both surface- and ground-water rights within the Roswell, Carlsbad, Fort Sumner, Hondo, Peñasco, Portales, Curry County, Lea County, Capitan, Jal and Causey Lingo basins. In addition, the District II office currently processes all applications for well drillers for the entire state.

Personnel from District II have been involved with the development of well driller regulations within the state, rules and regulations pertaining to the administration of ground-water within the state, administration of water rights on the High Plains, state-wide policy review, surface-water impoundments guideline development, domestic wells policy review, and basin-specific development. District II personnel were closely involved with, and provided detailed exhibits and testimony for, a number of water right hearings associated with protested applications. The District II office also processed 158 applications for well drillers licenses and renewal of well drillers licenses throughout the state and is currently participating in the well drillers compliance program.

During this fiscal year, District II personnel measured water levels within the Fort Sumner, Roswell, Carlsbad, Penasco, Hondo, Lea County, and Causey Lingo basins. An extensive data review was also performed for this program. District staff provided assistance in the development of the annual aquifer depletion map used by the Internal Revenue Service to determine the cost of the loss for Lea County farmers. Personnel also performed extensive fieldwork associated with the processing of applications and in the oversight of the construction and plugging of Artesian wells.

During this fiscal year, the Roswell Basin Water Master's Office read over 1,300 ground-water meters with an average of eight readings per well per season. Over the course of the

## District Offices

### District V

100 South Gossett, Suite A  
Aztec, NM 87410-2432  
505-334-4571

San Juan Basin, Animas, La Plata  
rivers and groundwater basins

Jicarilla, Navajo and Ute Mountain  
Ute nations

Robert Genualdi, PE, District Supervisor

### District VI

Bataan Memorial Building  
P.O. Box 25102  
407 Galisteo Street Rm 102  
Santa Fe, NM 87504  
505-827-6120

All surface water rights and all protested  
applications statewide

Northern Rio Grande, Upper Pecos,  
Tucumcari, Canadian River groundwater  
basins

Rio Chama water master

#### Cimarron Sub-Office

Cimarron-Rayado Water District

Linda Gordan, District Supervisor

### District I

Springer Square Building  
121 Tijeras NE, Suite 2000  
Albuquerque, NM 87102  
505-764-3888

Bluewater, Sandia, Estancia, Rio  
Grande, and San Juan groundwater  
basins

Jess Ward, District Supervisor

### District II

1900 West Second Street  
Roswell, NM 88201  
505-622-6521

Capitan, Carlsbad, Curry County,  
Fort Sumner, Hondo, Jal, Lea County,  
Portales and Roswell groundwater  
basins

Ogalalla Aquifer

All well-driller license applications

Art Mason, PE, District Supervisor

### District III

P.O. Box 844  
216 South Silver  
Deming, NM 88031  
505-546-2851

Animas Valley, Gila-San Francisco,  
Lordsburg Valley, Mimbres Valley, Nutt-  
Hockett, Playas Valley, San Simon and  
Virden Valley groundwater basins.

Charles Jackson, District Supervisor

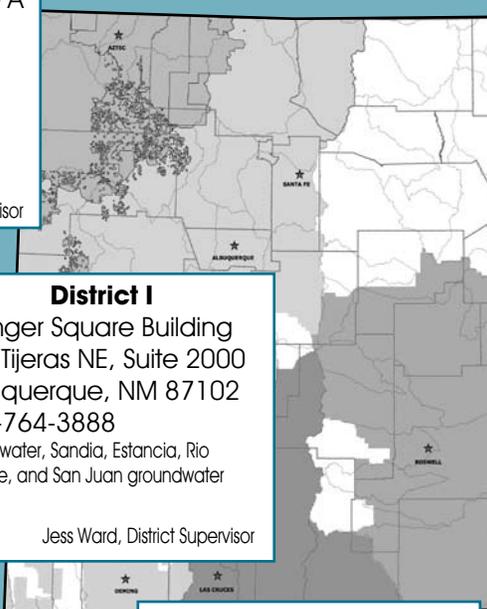
### District IV

P.O. Box 729  
1680 Hickory Loop Suite J  
Las Cruces, NM 88004  
505-524-6161

Lower Rio Grande, Tularosa, Hueco,  
Las Animas Creek, Hot Springs and Salt  
groundwater basins

Hydrographic Survey Bureau

Calvin Chavez, District Supervisor



season, approximately 25 percent of these wells were also rated and adjusted for water diverted while inoperative. Similarly the Carlsbad Basin supervisor and water master read over 150 groundwater meters for primary wells and over 165 meters for supplemental wells within the Carlsbad Basin with an average of four readings per well per season. The Pecos River water master continued to assume the responsibility for accounting for surface water diversions from Puerto de Luna to Black River near the state line. This includes surface water measurements in the Fort Sumner Irrigation District, Hagerman Irrigation Company and Carlsbad Irrigation District.

District II staff also continue to be involved with the ongoing permitting of water rights and the performance of extensive field inspections and investigations associated with water right transfers and un-permitted water right activities throughout the district.

A number of District II staff members have also been involved with the ongoing Pecos project, developed from the partial final decree pertaining to New Mexico's state-line delivery obligations of Pecos River water to Texas. This included the administrative process leading up to the construction of a Pecos well field and the review, analysis and permitting of water-right transfers associated with meeting these delivery obligations.

Members of the District II staff were also a part of the measurement committee meetings, which provides a review of water master issues throughout the state.

In addition to the regular office hours in Roswell, District II staff keeps weekly hours at the Lea County Court House in Lovington, the Roosevelt County Court House in Portales, Curry County Extension Office in Clovis, Carlsbad Irrigation Office in Carlsbad, and Ruidoso Village Hall.

During fiscal year 2005-2006, the Roswell office of District II processed more non-domestic well applications than any other area of the state.

The **District III** Office staff continued to maintain detailed annual records of the diversions and consumptive uses of the water appropriated from the Gila and San Francisco rivers. This process culminated with the annual crop inventory of all irrigated lands within the Gila-San Francisco, San Simon and Virden Valley basins. The district has primary responsibility to administer water rights in the Gila-San Francisco, San Simon and Virden Valley basins in accordance with the U.S. Supreme Court decree in *Arizona v. California* and the Globe Equity Decree No. 59. The Gila Basin water master issued numerous orders related to administration of the decree, including orders to curtail illegal diversions, metering orders, and orders requiring lands without rights to not be irrigated.

Staff members continued to assist water-right holders in the Animas Valley Underground Water Basin complete declarations and bring existing water right files up to date for the ongoing adjudication process in the basin. District III began processing hundreds of declarations in the basin and continues to work to verify locations of existing wells and current uses using GIS and global positioning system, better known as GPS, technology. Staff members continued to update and expand the GIS databases for the basins administered by District III, including maintaining the Virden Valley GIS project, the first of this type completed in New Mexico.

District III saw substantial activity in the four new basins and extensions to four existing basins declared by the State Engineer the previous year. The new basins include the Mount Riley Basin near Deming and the Cloverdale, Hachita and Yaqui basins in the boot heel area of the state. Staff members continue to assist large numbers of area residents declaring water rights in these areas.

AWRM advancement within District III was highlighted by the installation of permanent measurement structures in all of the junior ditches in the Upper Mimbres Water Master District. The structures include concrete supported flumes and real-time data transmission equipment, which allow staff and water-right holders to see actual flow rates at all of the Upper Mimbres diversion structures over the Internet. Preliminary design work was also completed on a permanent measurement structure to be constructed below Bear Canyon Reservoir.

The District III WATERS staff completed population of the WATERS database for the Lordsburg Valley Underground Water Basin during the fiscal year, allowing for more





efficient water rights administration and easier access to the water-right files for staff and water right owners in that area.

Additionally, the District III staff completed crop surveys for the Animas Valley, Playas, Lordsburg, Cloverdale, Yaqui, Hachita and Nutt-Hockett underground water basins and the Mimbres River, and assisted with measurements within the district for the cooperative groundwater-level-monitoring program with the U.S. Geological Survey. The staff also again this year participated in the annual career fair at Deming Hofacket Mid-High, and other outreach activities in New Mexico.

**District IV** Office staff continued to see an increase in the number of applications filed to drill replacement irrigation wells within the Elephant Butte Irrigation District due to the prolonged effects of the continuing drought. For the 2007 irrigation year, the irrigation district allocated 18 acre-inches for the irrigation season, resulting in farmers continuing to replace marginal irrigation wells and wells showing signs of failure. The district took action on 283 non-domestic applications requesting the drilling of high capacity wells, more than another other district in the state. During the fiscal year, a total of 346 domestic well permits were issued, a decrease from previous years due partly to the increase in the filing fee from \$5 to \$125.

## Water Administration Technical Engineering Resource System

The Water Administration Technical Engineering Resource System, or WATERS, is a web-based system created by the Office of the State Engineer to make the agency's extensive water right records more readily accessible to staff and the public. For the staff, WATERS is a critical tool in the administration of water rights and for active water management. The database tracks the progress of new applications through the stages of the administration process from the date of filing until action is taken on the application. Activity after the application has been acted on is also tracked via the database, as will any non-compliance of permit conditions, greatly facilitating the agency's monitoring of permit compliance. The locations and water levels of wells are also entered and stored in the database and a meter-reading module allows division staff to track metered water use, facilitating tracking and enforcement of metered appropriations.

For both the staff and public, WATERS provides information on the history of individual water right claims in New Mexico, court orders and decrees, hydrographic survey results, water right applications pending before the State Engineer, and electronic images of water right documents. Using WATERS, anyone can obtain instant information concerning water use, including comprehensive data about domestic, irrigation, commercial and other water rights, location of rights, and owners of rights, as well as details of well construction. In particular, users can find out how much water use is permitted in a water basin, track changes in water use patterns, bring together regional data on water use, and compile and analyze data to build water-use models. WATERS is capable of linking to a geographic information system to create intricate maps of water rights and resources. WATERS is fulfilling one of the Governor's initiatives to fully automate the agency and help implement the vision of active

water resource management. It will help enable the state to manage its water both in times of plenty and in times of drought.

The program's success requires adequate resources to accomplish this monumental initiative. The system is operational in six of seven high-priority water basins in the state. An update of one of those six – the Rio Grande Basin – is underway to include recent water rights adjudication activity. In addition, the program recognized that certain large files account for a significant number of incoming applications and by abstracting these files we could increase the efficiency of the water right district offices to process applications. Attention has been turned to completing these files, including the records for the cities of Ruidoso, Española, Santa Fe and Albuquerque.

WATERS started out as a "project" to protect and preserve water rights records in an electronic database. WATERS has developed into a water rights administration tool. When a basin's files are completely abstracted into WATERS, a complete listing of every water right within that basin will be available to the water rights experts and the general public at the touch of a button. Considerable effort will be required to maintain the WATERS database in a current condition. Also by archiving the up to 100-year-old water right records, it is helping to preserve a vital aspect of New Mexico's history.

To access WATERS from the Office of the State Engineer website, click on "WATERS Database" on the home page. Then, click on "iWATERS the internet database query system" in the middle of the page. Just below the iWATERS link are links for definitions of acronyms, Helpful Hints and an iWATERS tutorial. All users are asked to register using their e-mail address as their user identification.

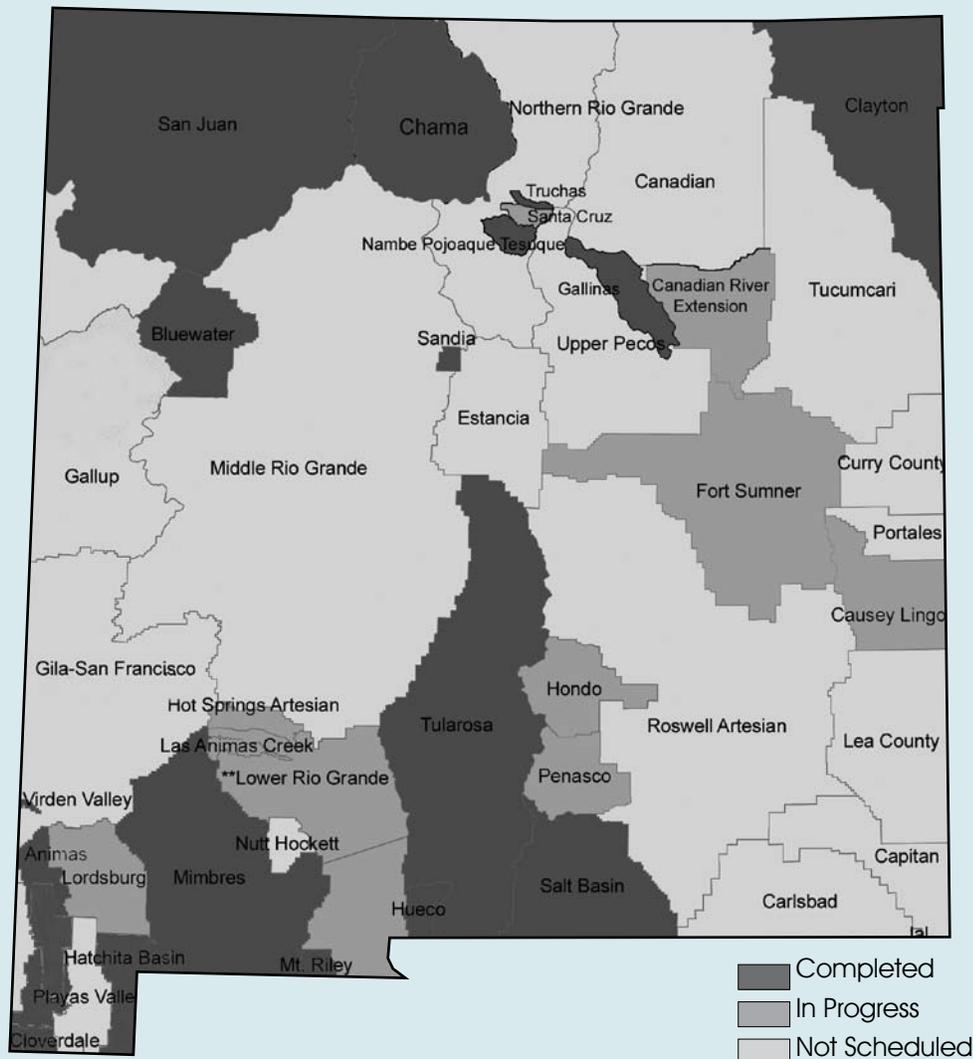
On March 28, 2007, the State Engineer entered the Supplemental Lower Rio Grande Metering Order, Order No. 180, setting forth the process for metering compliance. During the fiscal year the water master and his staff inspected 899 newly installed meters and entered the data into the WATERS database. In January 2007 approximately 474 letters were sent to well owners acknowledging compliance with the metering order; 45 water rights owners were notified that they were not in compliance. None of the compliance issues went as far as injunction because the owners have either complied or certain ownership issues have not been resolved. Approximately 1,250 letters were sent to owners of pre-basin wells to remind them of the metering order. In April 2007, staff prepared and mailed out approximately 1,000 additional reminder letters to owners of wells that require metering. The water master staff has developed a database to facilitate fast and efficient data tracking on meter installations and inspections.

District IV WATERS staff continued the maintenance of water rights files by entering and imaging documents that change any of the essential water rights elements associated with those files. In addition, WATERS staff have been entering and imaging documents initially overlooked. The project to abstract and image all historical domestic permits for the Lower Rio Grande Basin has been completed.

District IV staff continued to hold field office hours twice a month at the Otero County Courthouse in Alamogordo.



## Status of WATERS Implementation





The **District V** Office administers surface- and groundwater rights in the San Juan Basin. The basin encompasses waters of the upper Colorado River system of New Mexico, which includes the San Juan, Animas, La Plata, Pine, and Navajo rivers, and numerous smaller tributaries and groundwater sources. The vast majority of water usage in the basin comes from surface water supplies emanating in Colorado that account for about two-thirds of all the water entering the state of New Mexico. As has been the case over the last several years, the San Juan Basin continues to see significant growth due to the favorable energy market. This growth has led to an increased demand on surface water resources, mainly by cities and rural domestic water providers looking to expand their systems.

Much effort by the District V office was put into the creation of a GIS for the basin. The GIS data can be integrated with real-time county parcel records to assist water rights staff in processing applications and the San Juan Basin water master in administering diversions. The effort has also been popular with the public in helping them research and understand their water rights.

Efforts to advance the State Engineer's AWRM initiative in the basin continued. The last of the scheduled diversion metering stations was installed. The station was constructed in cooperation with the U.S. Army Corps of Engineers on the Turley-Manzaneros Ditch. The station was outfitted with real-time data collection equipment that will make diversion data available on the Internet through the Office of the State Engineer website. Staff also made progress on district-specific rules and regulations; however, the effort was slowed due to pending litigation on the statewide rules.

As an alternative to priority administration, major water users on the San Juan River once again entered into a voluntary shortage-sharing agreement. The San Juan Basin water master administered flows of the San Juan River in accordance with this agreement. In addition, the San Juan Basin water master continued to make improvements and perform routine maintenance to the diversion-metering infrastructure installed over the past few years. District staff also made a concerted effort to collect meter data from water users delinquent with their reporting requirements.

The San Juan Basin adjudication also took another big step forward during the 2006-2007 fiscal year. Service packages were mailed to irrigation water users on the first four ditches in the La Plata River section of the adjudication. Staff from the District V office worked with Office of the State Engineer attorneys and the Hydrographic Survey Unit to further their understanding of certain aspects of water rights particular to the La Plata River. The District V office has been designated an adjudication document repository for the court.

District V staff continue to work with staff in Albuquerque to ensure current water rights documents are put into the WATERS database, and that necessary improvements are made to existing data already in the database.

Other significant events in the basin during the 2006-2007 year include the following: The City of Bloomfield received a permit to divert from an additional point of diversion off the San Juan River. Federal legislation was introduced for the Navajo Nation Water Rights Settlement. The Animas-La Plata Project construction reached 50 percent complete. The U.S. Bureau of Reclamation released its Planning Report and Draft Environmental Impact Statement for the Navajo-Gallup Water Supply Project.

The **District VI** Office administers water rights within the northern portion of the Rio Grande Basin, the Canadian Basin, the Clayton Basin, the Upper Pecos Basin, the Tucumcari Basin, and the surface waters within those basins. Those areas of the northern Rio Grande Basin administered by the District VI Office include the areas upstream of Cochiti Dam and Reservoir, the Santa Fe area, the Nambe, Pojoaque, and Tesuque area, the Espanola area, the Truchas, Peñasco, Dixon and Velarde areas, the drainage basins of the Rio Chama, the Rio Ojo Caliente, and the Taos, Questa and Costilla areas. A water master office is maintained in Cimarron for the purpose of administering water under the Cimarron and Rayado decrees.

AWRM activities within District VI include three priority basins: the Rio Gallinas (tributary to the Pecos River), the Nambe-Pojoaque-Tesuque Basin and the Rio Chama.

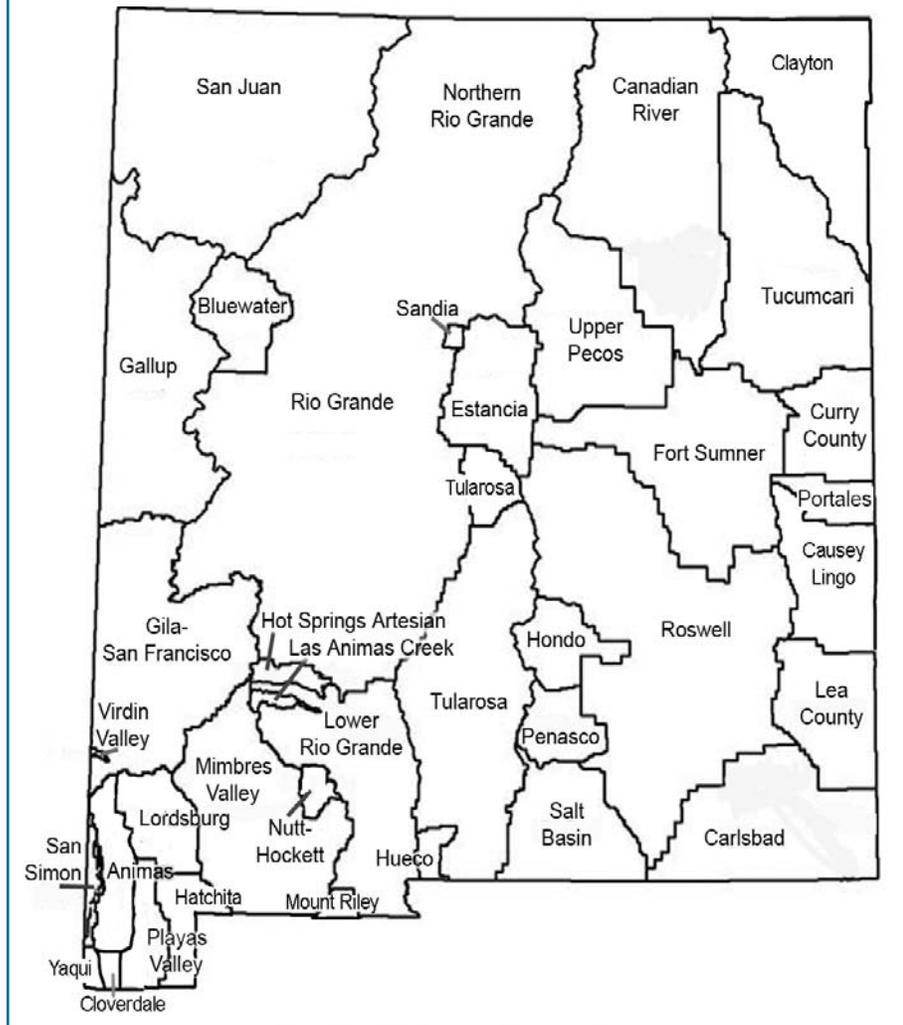
The Nambe, Pojoaque and Tesuque rivers and Rio Chama are all tributaries to the Rio Grande. Active adjudications are ongoing for these stream systems and groundwater basins. In addition to the Cimarron-Rayado water master, five other water masters work out of the Santa Fe Office in these three AWRM priority basins. It is expected that the water master staff will double in the future. During this year's legislative session, funds were appropriated for the creation of two new water master positions for District VI. one will oversee the Santa Fe River basin and on a part-time basis to assist in the Nambe, Pojoaque and Tesuque areas. The other position will work in the Mora River area of the Canadian Basin. The Rio Gallinas water master should have an office in the City of Las Vegas in the near future, as soon as accommodations are found and secured. The District VI staff has been involved in several public education and outreach activities concerning the three priority AWRM basins throughout the year including the annual Gallinas River water master meeting.



WATERS personnel have completed abstracting water rights files into the water rights database for the three AWRM priority basins, making water rights administration more efficient and more effective. Water rights files are accessible to State Engineer personnel and to the general public over the Internet.

A water master from the Santa Fe Office chairs the Office of the State Engineer Water Master Committee. He and his assistant organized a weeklong training session for all State Engineer and Interstate Stream Commission water masters statewide for the measurement of surface water presented by the U.S. Bureau of Reclamation. District VI water masters have also assisted in the statewide acquisition of Federal Communications

## Groundwater Basins





Commission licenses to transmit and retrieve water measurement data from satellites in support of the State Engineer's AWRM initiatives.

In addition to the statewide water master activities that the District VI water masters facilitate, they have also been busy meeting with consultants, community leaders, and representatives of pueblos, the federal Bureau of Indian Affairs and the federal Bureau of Reclamation to locate, specify and order equipment necessary for the measurement of surface- and groundwater in the three AWRM priority projects within District VI. Provisions are being made for real-time reporting and retrieval of water measurement data in these three AWRM projects. Currently, the Montezuma gauge above the City of Las Vegas is a real-time gauge that can be accessed via the U.S. Geological Service website. Weekly posting of the flow at the Lourdes gauges, below the City of Las Vegas, are made to the Office of the State Engineer website but because of location and logistics this gauge will not be made to report on a real-time basis anytime soon. Several gauges on the Rio Chama, Rio Grande, Nambe and Tesuque streams are real-time, and flow data can be found on the USGS website. These projects have required extensive field investigations and numerous visits with a variety of consultants.

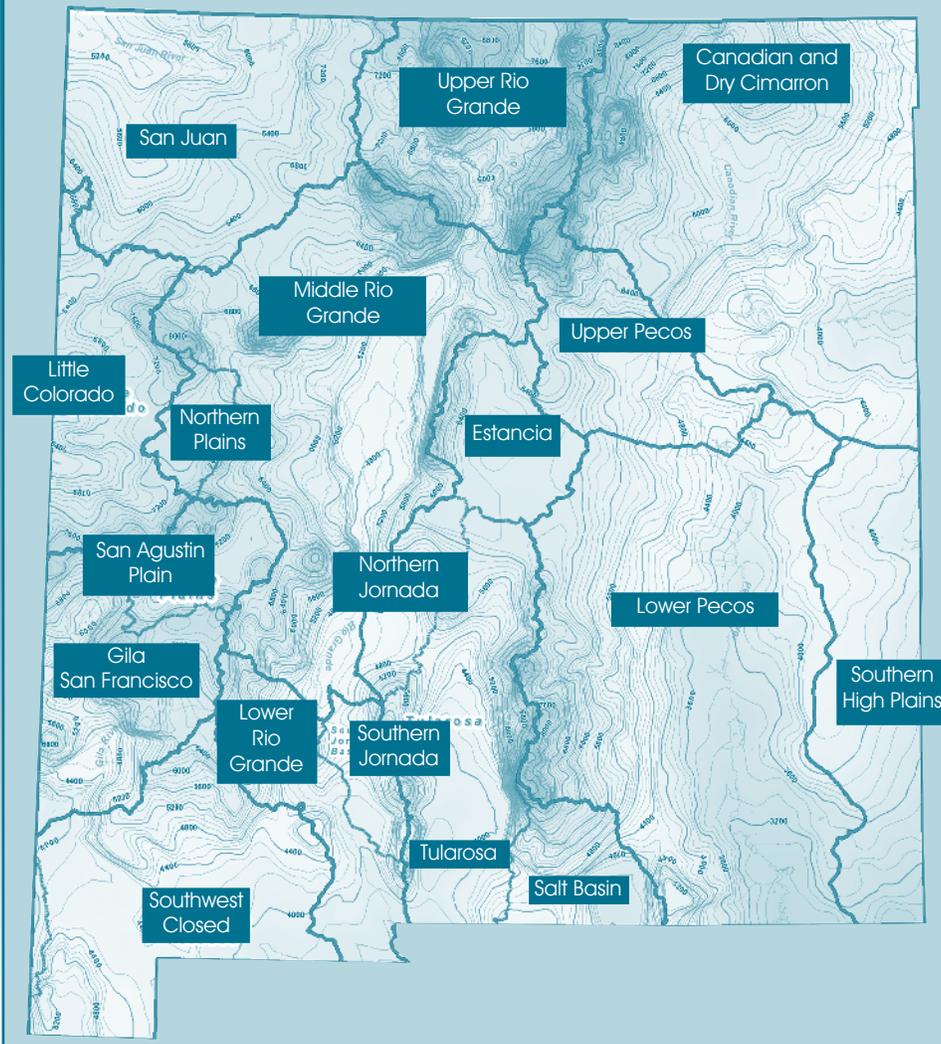
District VI personnel hold office on the third Wednesday of every month in Taos at the county courthouse and have been holding regular field offices in different locations within the Clayton Basin. This year District VI staff worked cooperatively with the city and county of Santa Fe and Las Campanas community management and made several field visits to the Buckman Direct Diversion site. A permit was conditionally approved that

will allow these entities to divert their contracted San Juan Chama Water directly from Rio Grande surface water. The parties and other local concerned stakeholders have agreed on a monitoring plan for observation of water level changes that may occur due to the pumping of several wells that supply the municipal and county water systems.

The ongoing problem of unpermitted ponds for aesthetic, recreational, and wildlife and stock watering purposes continues to be an issue that demands a significant amount of staff time to investigate, document, and pursue compliance with state law and Office of the State Engineer permitting requirements throughout the district.

This year the Legislature appropriated funds for a new District VII Office in the northeast area of the state. Appropriations were also made for three full-time positions and a full-time water master position for the Mora area that will be stationed at the District VII Office. A request for proposals has been issued for the new office for a location in Springer, Raton, Cimarron, Clayton or

## Surface Basins and Sub-Basins with Groundwater Contours



Tucumcari. Work is progressing in an effort to hire personnel for the office. The basins that will be administered from the District VII Office include the Canadian, Clayton and Tucumcari. The Cimarron Rayado water master will also work out of this new district office.

## Hydrology Bureau

The Hydrology Bureau's 14 employees perform a wide range of activities in support of the Office of the State Engineer and the Interstate Stream Commission. The bureau develops water resource models and administrative policies, evaluates water availability, assesses and quantifies hydrologic impacts, provides expert testimony for litigation and adjudication cases, designs and manages technical projects, provides GIS and mapping services, and runs the agency library.

The Hydrology Bureau again provided extensive technical support during the 2006-2007 fiscal year to the Active Water Resource Management (AWRM) initiative. Bureau staff provided project management and GIS support, conducted field investigations and hydrologic analyses, and assisted in the development of district-specific rules and regulations. Notably, bureau staff participated in numerous public meetings related to implementation of AWRM on the Lower Rio Grande, conducted model analyses of Rio Chama depletions, and assisted with field measurement, flow data analysis, and preparation of the annual water master report in the Rio Gallinas AWRM area.

During this fiscal year the Hydrology Bureau worked on some 102 hydrologic investigations in 21 different basins in support of water rights application processing. Of these, 79 investigations involved protested or aggrieved applications processed in cooperation with the Administrative Litigation Unit. Notable among these cases were bureau involvement in the Seven Rivers and Moongate Water Company district court trials and extensive settlement negotiations with the City of Alamogordo. The bureau also assisted with 23 unprotested applications submitted by the Water Rights Division that required non-routine hydrologic evaluation. An investigation may pertain to a single water rights application or multiple applications and may involve anywhere from a few acre-feet up to tens of thousands of acre-feet of water. Not all of the water rights investigations performed during the year were finalized. Several investigations were resolved prior to project completion, and some investigations continued into the 2007-2008 fiscal year.

Bureau hydrologists also assisted Water Rights Division in the evaluation of underground storage and recovery projects proposed by the City of Rio Rancho and the City of Albuquerque and in review and oversight of exploratory drilling projects to tap deep saline aquifers in Sandoval, Bernalillo and Lincoln counties. The bureau also provided support to the Water Use and Conservation Bureau, assisting in the evaluation of water availability for 10 proposed subdivisions in Catron, Cibola, Lincoln, Sandoval, San Miguel and Socorro counties.

The bureau continued to develop state-of-the-art technical tools to assess hydrologic impacts. A number of groundwater flow models prepared by the Office of the State Engineer, the U.S. Geological Survey, and private consultants are available for various portions of the state. These models must be updated and new models developed as activity increases in an area. During the fiscal year, bureau staff enhanced the Middle Rio Grande model and developed a graphical user interface to facilitate use of the Estancia Basin model. In the Mimbres Basin, bureau hydrologists continued development of a new administrative groundwater model to replace the existing model that has been in use since the late 1970s. The model incorporates new information about the basin and will be more accurate and easier to use than the previous model.

The Hydrology Bureau also continued to provide assistance to the Interstate Stream Commission and Litigation and Adjudication Program. In the Lower Rio Grande, the bureau continued work on studies aimed at improving the state's understanding of the hydrologic system below Elephant Butte Reservoir and the operations of the Rio Grande Project. These efforts allow New Mexico to better manage water resources in this area, assist in the resolution of the ongoing adjudication, and protect the state's interests in case of threatened litigation by Texas. Bureau staff was also involved in drafting rules and





regulations relating to special water users associations in the Lower Rio Grande.

The Hydrology Bureau remained integrally involved in state and regional water planning activities during this fiscal year, helping to implement elements of the State Water Plan and participating in the five-year review of the plan. The bureau also reviewed the Taos regional water plan.

The bureau continued its support to agency adjudication efforts across the state, including conducting analyses and participating in settlement negotiations related to the Jemez River adjudication, the Rio San Jose adjudication, and the Aamodt adjudication in the Nambe-Pojoaque-Tesuque area.

Also during this fiscal year, the bureau continued its involvement in numerous technical and administrative activities in the Española Basin. Notable among these projects was bureau participation in the joint team basin modeling effort between the city and county of Santa Fe, the negotiation of a monitoring plan for the city's most recent supplemental wells, review of the Rancho Viejo deep-well long-term injection test, and interpretation of previously collected aeromagnetic data by the U.S. Geological Survey.

Recent activity in the Hondo Basin led the bureau to initiate several projects in that area during 2006-2007. These included evaluating the Village of Ruidoso's current sources of water supply and cooperating with the Geological Survey on surface water analyses of the Rio Bonito, Rio Hondo and Rio Ruidoso.

The Hydrology Bureau continued its joint efforts with the Geological Survey to collect and store stream-flow and groundwater-level data throughout New Mexico. This year the bureau continued supervision and support of the agency's statewide water-level monitoring program, performing or overseeing contractor monitoring activities in the Harding County, Curry County, Portales, Mimbres, Mora, Nutt-Hockett, Santa Fe, San Juan, Tularosa and Upper Rio Grande areas. Also this year the bureau developed and populated a statewide Aquifer Test Database. Data from

over 900 aquifer tests were entered in a database to provide a rapid method for evaluating hydraulic properties of aquifers. These properties are used in aquifer characterization and evaluation of water rights applications. Additional test data will be entered next year.

The Hydrology Bureau also maintains the Office of the State Engineer Library. Initiatives in 2007 such as adding a professional librarian to the staff and providing online access to the collection continued to move the library toward its goal of establishing the facility as one of the premier water resource libraries in the state. Collection growth and conservation builds and maintains unique holdings for use by the agency, other agencies, and the public.

## Dam Safety Bureau

The Dam Safety Bureau regulates dam safety in New Mexico. In ensuring the safety of dams, the bureau performs inspections to verify the dams are operated and maintained in a safe condition, reviews plans for new dams and modifications and repairs to existing dams, and issues permits to construct and operate the dams. The bureau inspects construction to verify the dams are built or repaired in accordance with the plans on file with the State Engineer. Safety orders are issued when a serious dam safety deficiency exists with the potential to result in a threat to life and property. The bureau also manages state funds for the rehabilitation of dams. Activities involved in the managing of state funds include preparing scope of work, evaluating engineering proposals, reviewing project deliverable items, managing contracts and coordinating with the dam owner. The bureau also received a one-year federal grant to improve the New Mexico Dam Safety Program.

## Hydrologic Investigations in Support of Applications

| Basin               | Protested or Aggrieved | Unprotested | Total      |
|---------------------|------------------------|-------------|------------|
| Bluewater           | 0                      | 2           | 2          |
| Canadian River      | 1                      | 3           | 4          |
| Carlsbad            | 2                      | 0           | 2          |
| Causey-Lingo        | 0                      | 1           | 1          |
| Clayton             | 4                      | 0           | 4          |
| Estancia            | 2                      | 2           | 4          |
| Gila-San Francisco  | 2                      | 0           | 2          |
| Hondo               | 6                      | 1           | 7          |
| Hof Springs         | 5                      | 0           | 5          |
| Lea County          | 3                      | 0           | 3          |
| Mimbres             | 1                      | 0           | 1          |
| Lower Rio Grande    | 7                      | 0           | 7          |
| Middle Rio Grande   | 20                     | 9           | 29         |
| Northern Rio Grande | 4                      | 0           | 4          |
| Penasco             | 0                      | 1           | 1          |
| Portales            | 1                      | 3           | 4          |
| Roswell             | 10                     | 0           | 10         |
| Sandia              | 1                      | 0           | 1          |
| Tucumcari           | 0                      | 1           | 1          |
| Tularosa            | 8                      | 0           | 8          |
| Upper Pecos         | 2                      | 0           | 2          |
| <b>Total</b>        | <b>79</b>              | <b>23</b>   | <b>102</b> |

During the 2006-2007 fiscal year, the bureau inspected 190 dams on the inventory and two dams in San Juan County that were the subjects of complaints. The bureau issued two safety orders and an amended order. The two complaint dams in San Juan County received safety orders to breach their dams due to their unsafe condition. Both owners breached their dams, removing the threat to downstream residences. The dam owner receiving the amended safety order was granted an extension of time to address the unsafe condition of his dam in Doña Ana County near the Village of Old Picacho.

Many dams in New Mexico are well over 50 years old and investigations and rehabilitation are required. The bureau has identified 130 safety-deficient dams with 100 of the dams classified as “high or significant hazard potential.” The hazard potential classification is not a rating of the condition of the dam but a measure of the potential downstream damage if the dam were to fail. A dam classified as high hazard potential that fails will cause loss of life, and significant hazard potential will cause significant property damage but no loss of life. The bureau also classifies the condition of the dam after performing an inspection and evaluating design documentation available for the dam. Not all dams have been inspected since initiating the condition classification of existing dams; therefore, it is anticipated that the list of unsafe dams will increase with time.

The bureau reviewed plans for 11 new dams during FY07. Plans were accepted and permits were issued for four. The City of Albuquerque received permits to construct and operate a dam to store San Juan Chama water and a dam to provide flood control. Construction is near completion on both dams. Mosaic Potash received a permit to construct and operate a flood control dam in Eddy County, and Homestake Mining received a permit to construct and operate an evaporation pond in Cibola County. Aztec Water Supply Reservoir No. 3 was initially reviewed in FY06 and several reviews of the project occurred in FY07 with the project still pending. Preliminary engineering plans were reviewed for five flood control dams in Los Lunas as part of the Los Morros Business Park. Construction was completed this fiscal year at the Artesia wastewater pond, permitted in FY06. Construction continued during FY07 on the Montoyas Arroyo Flood Control Dam in the City of Rio Rancho, with completion expected in November 2007.

The Dam Safety Bureau reviewed plans to investigate, repair or modify 27 jurisdictional dams during FY07. Twenty-one of these 27 dams are classified as high hazard potential. Six of the projects received state capital outlay funds, which requires project management by the bureau. Plans were accepted and permits issued to rehabilitate Sandia Mountain Site 1 Dam and to modify Escalante Pond 4. A discussion of the more significant projects is provided below:

Sandia Mountain Site 1 Dam is owned by the Coronado Soil and Water Conservation District, and the dam provides flood protection for the Town of Bernalillo. A permit was issued for construction, which included restoring the dam height, replacing the downstream end of the outlet conduit and impact basin, and armoring the emergency spillway with roller-compacted concrete to prevent erosion. The construction is complete and compliance with all project completion conditions is pending. The State Engineer is funding 25 percent of construction with capital outlay funds.

Springer Dams 1 and 2 are owned by the town of Springer and the dams provide drinking water for the community. The reservoirs receive their water from Springer Ditch Company. The dams are subject to a State Engineer order limiting storage due to their poor condition. Investigations involve the evaluation of the embankment of both dams, increasing spillway capacity, and evaluation of the outlet conduits. The geotechnical evaluation is currently underway. The dams are being rehabilitated with capital outlay funds.

Bloomfield Dam in San Juan County is owned by the City of Bloomfield and the dam provides drinking water for the community. The Office of the State Engineer is providing contract management for the engineering services on this project. The spillway for the dam is in poor condition, and the capacity is undersized. In addition, the valves at the dam leak and prevent access to inspect the outlet conduit. There is also an old irrigation pipeline running along the downstream toe that needs to be replaced to ensure it does not jeopardize the new spillway construction. The dam is being rehabilitated with capital outlay funds.



### Dam Safety Inspections

| Year | Dams Inspected | Orders Issued |
|------|----------------|---------------|
| 1997 | 142            | 1             |
| 1998 | 155            | 4             |
| 1999 | 126            | 3             |
| 2000 | 96             | 0             |
| 2001 | 103            | 2             |
| 2002 | 198            | 2             |
| 2003 | 172            | 4             |
| 2004 | 160            | 1             |
| 2005 | 168            | 2             |
| 2006 | 162            | 4             |
| 2007 | 190            | 2             |



The Lower Vallecito (Ponderosa) and San Mateo dams are both subject to State Engineer orders restricting storage. The Lower Vallecito Dam on Vallecito Creek in Sandoval County provides water storage for irrigation in the community of Ponderosa and is owned by the Ponderosa Ditch Association. The dam has been inadequately maintained and has inadequate spillway capacity. The San Mateo Dam on San Mateo Creek in Cibola County provides water storage for irrigation in the community of San Mateo and is owned by the San Mateo Community Ditch. The dam has seepage that emerged on the downstream face. Both dams are being evaluated by the U.S. Army Corps of Engineers as part of the Acequia Restoration Program. The U.S. Army Corps of Engineers completed a reconnaissance study for each dam, and the bureau is now negotiating a scope of work to address the engineer investigations for each dam. The Office of the State Engineer, with capital outlay funds, is providing 25 percent cost match for all future costs related to investigations, design and construction for both projects.

Los Alamos Canyon Dam is a recreational pond significantly impacted by the Los Alamos fire in May 2000. The dam was owned by the U.S. Department of Energy but ownership was transferred to Los Alamos County. Investigations are ongoing to evaluate the current condition of the dam, the hazard potential classification, and removal of sediment from the reservoir. The bureau reviewed preliminary hydrology for Los Alamos Canyon Dam.

Seven of the plan review projects are tailings dams classified as either high or significant hazard potential. Plans were reviewed to raise Molycorps Tailings Dam 4 in Taos County and Arizona Public Service Lined Ash Pond in San Juan County. Molycorps Tailings Dam 4 provides storage for tailings from molybdenum mining in Questa. Molycorps is proposing an additional 10-foot raise to the 212-foot high tailings dam. Arizona Public Service is also proposing to raise the height of their lined pond that stores fly ash from the coal burning power generation plant. Both projects require additional information from the owner before a permit can be issued. The remaining five tailings dams are reclamation projects with Phelps Dodge. Tailings Dams 1, 1A, 1X, 2 and 3X store tailings from mining copper in Grant County. The tailings dams will be reclaimed by grading the tailings impoundments to prevent the storage of water, capping the tailings with soil and seeding the cover to mitigate erosion, grading slopes to a long-term stable condition, and constructing channels to safely convey storm runoff from the site. The reclamation is also coordinated with two other state agencies: the Environment Department and the Energy, Minerals and Natural Resources Department. To expedite the reclamation project, staff is providing a “rolling” review during construction. This approach is challenging the resources of the bureau but is saving significant time for Phelps Dodge. The target date to complete construction is December 2008. The dams will remain on the Office of the State Engineer inventory several years after reclamation is complete to ensure reclamation measures are functioning as intended.

The bureau received a one-year grant from the Federal Emergency Management Administration to improve the New Mexico Dam Safety Program. The grant was used to provide travel and training to staff in the field of dam safety. Staff attended training in the areas of slope stability of dams, inspection of dams, and hydraulic flood modeling. Staff also attended the Association of State Dam Safety Official’s Western Regional and National Dam Safety Conferences. The grant was also used to scan dam safety records to preserve the information and equipment was purchased for field supplies and copying dam safety drawings.

## **Water Use and Conservation Bureau**

The Water Use and Conservation Bureau inventories ground- and surface water withdrawals and depletions by category, county, and river basin; 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 Resources Allocation and Litigation and Adjudication programs. The bureau coordinates water conservation activities,

including maintaining a bibliographic database and clearinghouse for information; develops and distributes educational materials to school children, the general public, public water suppliers, and businesses; conducts workshops; and assists public water suppliers, irrigation districts, and government institutions in carrying out their water conservation programs. In addition, the Water Use and Conservation Bureau performs reviews, at the request of county commissions, of water supply plans for proposed subdivisions throughout the state.

During the 2006-2007 fiscal year, the bureau prepared consumptive irrigation requirements for crops in Lea County and the Lower Rio Grande to support water rights adjudications. At the request of the Administrative Litigation Unit, the bureau prepared and reviewed technical exhibits for the City of Alamogordo and New Mexico Utilities Inc. to support protested applications of an aggrieved appeal in district court cases.

The bureau continued its oversight of projects being completed as part of the Governor's Water Innovation Fund. Additionally, the bureau was very active in the 2006 legislative session and its "Year of Water" focus. During the fiscal year, the bureau began implementing House Memorial 42, which requires the State Engineer to convene representative stakeholders to perform a review of the 40-year water planning statute (72-1-9 NMSA).

The Water Use and Conservation Bureau continues to assist municipalities in implementing the most state-of-the-art approaches for system analysis identified by the American Water Works Association (AWWA) to set and meet conservation targets for municipal water systems. The bureau pilot-tested the AWWA approach with four New Mexico cities: Gallup, Ruidoso, Las Vegas, and Rio Rancho. This new methodology eliminates what has previously been identified as "unaccounted-for water" and examines all water uses categorized as either "revenue" or "non-revenue" water. The bureau continues to work in partnership with the City of Santa Fe to complete a quantitative analysis of their water demand management program. Additionally, the bureau completed research and reporting on standardizing a gallons-per-capita-per-day methodology to be used by drinking water suppliers in the state. Results from the research, pilot projects, and partnerships will be used to establish water conservation planning guidelines for New Mexico during FY08.



## Water Conservation Education

The Water Use and Conservation Bureau manages an active outreach program related to water conservation education. This program evolved in response to the increasing pressures on the state's limited water supply and the realization that, for many parts of the state, water conservation may be the only practical method to meet the demand for water. The program encourages wise water use by New Mexico citizens, businesses, organizations and water suppliers. The education program consists of distributing free publications and holding workshops, a multi-level education curriculum, participation in water fairs, and partnerships with business, government and citizens groups.

Significant contributions made during the 2006-2007 fiscal year:

- Distributed more than 80,000 pieces of educational water conservation materials to schools, municipalities, businesses, organizations and individuals.
- Developed a landscaping DVD for public distribution. The 10-minute DVD titled *Irrigation 101*, was created



in partnership with the city of Santa Fe and Santa Fe Community College. The DVD, available in both English and Spanish, is designed to assist state building maintenance personnel and small-scale commercial irrigators. The DVD presents basic guidelines for operating and maintaining an irrigation system.

- Continued development of the publication under Project Wet titled *Discover the Waters of New Mexico*. The document was reviewed by peers and tested with fourth through sixth graders around the state. The project should be complete by January 2008.
- Maintained the Water Conservation Program section on the Office of the State Engineer's website. The water conservation web page received about 2,200 hits during the year.
- Participated in the Santa Fe and Carlsbad Children's Water Festivals.
- Participated in state and national associations involved in water conservation and environmental education activities.



An important task performed by the Water Use and Conservation Bureau is the review of proposed subdivisions throughout the state. By law, county commissions must submit subdivision proposals to the State Engineer with a request for an opinion as to whether the subdivision will meet several certain criteria related to water. The county commissions are not required to follow the opinion issued by the State Engineer. In fiscal year 2006-2007, the bureau reviewed 101 subdivision and development proposals, issued positive opinions on 25 proposals, negative opinions on 67 proposals, and deferred opinions on nine proposals.

Bureau staff also provides technical assistance on subdivision-related activities to county staff, subdividers, developers, consultants, and the general public. In fiscal year 2006-2007, the bureau assisted Curry, Lincoln and San Juan counties in development of their subdivision regulations.

The bureau performs a multi-step review of the subdivision, including reviews of the disclosure statement and any identified land and water use covenants and restrictions, the water-demand analysis for technical correctness and reasonableness, proof of existing water rights sufficient to meet the maximum annual water requirement, and, if required, the

water availability assessment for technical soundness, supported with reasonable conclusions and that demonstrate sufficient water supplies to meet the long-term demands of the subdivision. The bureau also verifies that the assessment is consistent with the disclosure statement and the water demand analysis. All errors, omissions, and deficiencies are noted, and an opinion is issued in a memorandum. The memorandum, along with a cover letter from the Water Use and Conservation Bureau Chief are sent to the requesting county commission.

The bureau maintains and updates a database containing a summary of all subdivisions and development reviews. This database can be accessed on the agency website at [http://www.ose.state.nm.us/water\\_info\\_subdivision.html](http://www.ose.state.nm.us/water_info_subdivision.html). The Office of the State Engineer publication on the requirements of subdivision proposals and review, *Water Conservation and Quantification of Water Demands in Subdivisions: A Guidance Manual for Public Officials and Developer*, is also available online at [http://www.ose.state.nm.us/publications/tech\\_rpts/rpt-48/rpt-48-toc.html](http://www.ose.state.nm.us/publications/tech_rpts/rpt-48/rpt-48-toc.html).

### Subdivisions Reviewed

| Year | Reviewed |
|------|----------|
| 1991 | 37       |
| 1992 | 24       |
| 1993 | 35       |
| 1994 | 40       |
| 1995 | 92       |
| 1996 | 141      |
| 1997 | 168      |
| 1998 | 186      |
| 1999 | 149      |
| 2000 | 116      |
| 2001 | 104      |
| 2002 | 94       |
| 2003 | 84       |
| 2004 | 119      |
| 2005 | 151      |
| 2006 | 153      |
| 2007 | 101      |

## Hearing Unit



The State Engineer's Hearings Unit conducts administrative hearings on protested and aggrieved water right applications and on disputed enforcement actions. During the 2006-2007 fiscal year, 88 new hearing matters were opened, two matters were reopened, and 78 matters were closed. Of the 78 closed matters, final dispositive orders were entered for 47 applications. The final orders include seven applications granted in whole or in part, subject to conditions, 12 applications denied, 27 dismissed on withdrawal of applications and one enforcement action affirmed. Thirty-one applications were remanded to the Water Rights Division for disposition following withdrawal, dismissal or settlement of protests. As of June 30, 2007, 80 cases were pending on the unit's docket.

During the 2006-2007 fiscal year, the Hearings Unit conducted a pilot program to evaluate whether incorporation of alternative dispute resolution methods would be a beneficial and cost-effective option in the context of water right hearings. Charles Kinney, a trained mediator and then University of New Mexico law student, conducted several mediations, with the assistance of Hearings Unit staff, over the course of six months. The results and feedback from the parties involved were positive and indicate that adding an ADR component to the Hearings Unit could significantly reduce the amount of time and resources expended in the processing and resolution of disputed applications for water use. The Office of the State Engineer is actively pursuing efforts to incorporate an ADR component within the administrative hearing process.

Several issues of significant interest were addressed in hearing decisions during the 2006-2007 fiscal year. A brief synopsis of matters wherein these issues arose follows:

**Hearing No. 03-027 re Application by Mary L.W. Pepler/Nominee and Estate of Phillip S. McKee, OSE File No. 1121 into RG-71275 & RG-71275-S.** State Engineer decision adopting the findings and order of the hearing examiner issued October 18, 2006. Applicants proposed to discontinue the diversion of the surface waters of Galisteo Creek, a tributary of the Rio Grande, for irrigation of 46.598 acres of land owned by the estate of Phillip S McKee and transfer the consumptive use water right to two separate parcels of land located in the vicinity of the town site of Waldo for use for subdivision, livestock, irrigation, agriculture and related purposes. Protests were filed by a number of individuals, associations and entities from the Cerrillos area. The application was partially approved to transfer the consumptive use water right from acreage within the move-from location described in the legal notice for livestock, irrigation, agricultural and related purposes, subject to conditions including specific identification of the move-to lands to be irrigated, metering of diversions and repayment of prior over-diversions. The application was denied for subdivision use based on evidence that the applicant did not intend to actually place water to beneficial use for subdivision purposes and such use was unlikely to occur within a reasonable period of time.

The decision of the State Engineer was appealed to the 1st Judicial District Court, Cause No. CV-D101-2006-0263, and subsequently remanded to the State Engineer for amendment clarifying that the permitted diversion is considered a 100 percent consumptive use amount and adjusting a repayment condition.

**Hearing No. 03-71; 03-72; and 03-073 Consolidated re Applications by Gilbert and Deborah Graves, OSE File Nos. 0701 and 0786 into 05130; 05131 into 4883; 05132 into 05131.** State Engineer decision adopting the findings and order of the hear-

### Hearing Officers

Victor Kovach  
Andy Core

### Hearing Unit Administrator

F. Eileen Serna



ing examiner issued on December 8, 2006. Applicants filed three applications with the State Engineer seeking to reconfigure the points of diversion and use of surface water of the Rio Tusas on property they own in the Tusas Valley, and to use pumps and sprinklers to irrigate rather than gravity flow. Protestants included a neighboring ditch, an acequia association, Rio Arriba County, and several individual irrigators and residents of the Tusas Valley. The rights involved were adjudicated in *State ex rel State Engineer v. Aragon* and are appurtenant to the Graves property. In addition to addressing issues of availability, impairment and conservation of water, the decision partially approving two of the applications and denying one of the applications includes an evaluation of hydraulic, legal, cultural and environmental factors that may be implicated in transfers among ditches and in changes from gravity flow irrigation to pumps.

The decision of the State Engineer was appealed to the 1st Judicial District Court, Cause No. D 117-CV-2007-00008/00009.

**Hearing No. 04-003 re Application by Rancho Lobo, Ltd., OSE File No. 1545 & 1699 into 4868.** State Engineer decision adopting the finding and order of the hearing examiner issued on December 12, 2006. Applicant sought to move adjudicated irrigation rights from the Willow Creek Mesa Ditch, which diverts from the Rio Chama, upstream to a proposed 22-acre lake to be in the uppermost portion of the water shed of the East Fork of Wolf Creek, also a tributary of the Rio Chama, for initial filling, evaporative loss, livestock, wildlife and recreation purposes. Rio Arriba County, the Asociacion de Acequias Nortenas de Rio Arriba, and individual irrigators protested the application. The application was denied based on findings that it would allow junior water rights to be transferred upstream past points of diversion of senior water right owners on a stream with historic shortages and would move water rights from a viable community acequia to a private lake for essentially private recreational purposes.



1936 – A New Mexico farmer opens a gate from a Rio Grande canal to irrigate a field.

(Arthur Rothstein. Farm Security Administration-Office of War Information Photograph Collection, Library of Congress, Prints and Photographs Division)

**Hearing Nos. 04-008 & 04-009 Consolidated re Applications by Los Poblanos Orchard Homeowner's Association, OSE File Nos. 04724 into RG-69046; 04756 into RG-69046.** State Engineer decision adopting the findings and order of the hearing examiner issued on May 21, 2007.

Two unprotested applications seeking to transfer declared pre-1907 surface water rights appurtenant to lands within the Middle Rio Grande Conservancy District to an existing well for irrigation of five acres of land owned by applicant were initially denied by the Water Rights Division based on a determination that there were no valid, existing pre-1907 water rights appurtenant to, and available for transfer at, the described move-from lands. The applications were partially approved based on the evidence presented at hearing. Approval was limited to that part of the declared rights that applicant was able to show were beneficially used from prior to 1907 to the present, at times and in amounts sufficient to support an administrative determination that a valid pre-1907 water right exists.

**Hearing No. 05-016 re Application by Santa Fe Ski Company, OSE File No. 01929 into 3919.** State Engineer decision adopting the findings and order of the hearing examiner issued on September 14, 2006.

Applicant proposed to transfer a surface water right from land served by the Chupadero

Irrigation Company Ditch, which diverts from the Rio Chupadero, and move said right six miles upstream to a point of diversion on the Rio en Medio at or near the Santa Fe Ski Area and to use the water for snow-making. The Rio Chupadero and the Rio en Medio are hydrologically connected: Part of the water supply of the Rio Chupadero is obtained via ditch from the Rio en Medio. Both streams are tributary to the Rio Pojoaque and the Rio Grande. The Chupadero Water and Sewer Company, the Acequias de los Chupaderos, and the Mayordomo of the Acequia Del Molino Ditch Association protested the application. The evidence presented at hearing supported the use of 72 percent return flow value for snowmaking at the Santa Fe Ski Area and the use of a 100 percent historic supply value in evaluating the application. Additionally, since no diversion of surface water would occur during the irrigation season no impairment to downstream irrigators was found. The application was approved, subject to conditions, including the limiting of diversions to November 1 through March 31.

The State Engineer's decision was appealed to the 1st Judicial District Court Cause No. D-101-CV-06-2295.

**Hearing No. 06-049E re Compliance Order dated August 28, 2006, OSE File No. LRG-3734.** State Engineer decision adopting the findings and order of the hearing examiner issued on February 26, 2007. The holders of well permit No. LRG-3734 requested a hearing concerning a compliance order alleging that they were in violation of a condition of approval requiring that the well be equipped with a meter. The evidence presented at hearing confirmed that the respondents were in violation of the metering condition. A final compliance order was issued requiring that respondents immediately cease all diversions from well LRG-3734 and install a meter on the well within 30 days. A civil penalty of \$50 per day, to begin 31 days after issuance of the order, was included for further non-compliance with cancellation of the permit ordered in the event that the non-compliance continued after August 1, 2007.

**Hearing No. 04-079 re Application by Marisa Gallegos, OSE File No. SD-02243-1B.** State Engineer decision adopting the findings and order of the hearing examiner issued on September 18, 2006. The hearing concerned a protested application to change point of diversion of surface water of the Rio Ojo Caliente, used for irrigation of trees located on 4.5 acres of land, from the Acequia de la Mesa Prieta Ditch to a pond that was excavated without benefit of a permit. The evidence presented at hearing established that the application was flawed in that the proposed purpose could not feasibly be accomplished and the application was denied.

**Hearing No. 06-014 re Application by David and Galila Harrington, OSE File No. SD-0569.** State Engineer decision adopting the findings and order of the hearing examiner issued on May 21, 2007. Applicants proposed to move water rights appurtenant to a tract of land irrigated with water from the La Bajada Community Ditch, which diverts from the Santa Fe River, to two other tracts of land located along the ditch. The evidence presented at hearing established that the requirements of NMSA 72-5-24.1 (re changes in point of diversion or place or purpose of use involving acequias and community ditches) were met with respect to one tract of move-to land, but not the second. The application was partially approved, subject to conditions, as to the proposed change involving the first tract of land.

The following Office of the State Engineer hearing decisions, referenced in prior annual reports, are pending on appeal:

**Hearing No. 04-027 re Application by Roy D. Mercer, LLC, OSE File No. 06286 and RG-10260.** Appeal of State Engineer's decision issued December 21, 2005, is pending in the 13th Judicial District Court, D-1314-CV-2006-00048.

**Hearing No. 02-017 re Application by City of Albuquerque Public Works Department, OSE File No. 4830.** An appeal of the State Engineer's decision of July 8, 2004, conditionally approving the City of Albuquerque Public Works Department's application to divert surface water from the Rio Grande for its drinking water project was filed in the 2nd Judicial District Court, CV-2004-5036. The district court issued its decision on April 13, 2006, and the matter is on appeal at the New Mexico Court of Appeals, No. 26,757.





**Hearing No. 02-035 re Applications by City of Alamogordo, OSE File No. T-3825 –T-3825-S-9.** An appeal of the State Engineer’s decision of December 29, 2004, partially approving, subject to conditions, the City of Alamogordo’s applications to drill 10 wells for diversion, desalination and use of groundwater of the Tularosa Underground Water Basin for municipal, industrial and commercial purposes is pending in the 12th Judicial District Court, CV-2005-019, 043 and 049.

**Hearing No. 03-004 re Applications by City of Santa Fe, OSE File Nos. RG-20516-S-10 thru RG-20516-S-13.** An appeal the State Engineer’s decision of September 15, 2004, conditionally approving the city of Santa Fe’s application for permits for supplemental wells for the continued diversion of up to 10,000 acre-feet/year of groundwater authorized under permit No. RG-20516 et al., (Buckman permit) is pending in the 1st Judicial District Court, D-101-CV-2004-2038.

District Court Decisions issued in FY 2006-2007 concerning Office of the State Engineer hearing decisions:

**Berrendo Cooperative Water Users Association (BCWUA) v. NM State Engineer, Fifth Judicial District Court Cause No. CV-WZ-26-001.** Following trial de novo, the 5th Judicial District Court denied BCWUA’s application to increase its appropriation of groundwater of the Roswell Artesian Underground Water Basin based on claimed return flow from septic leach fields. The district court decision is consistent with the State Engineer’s decision in Hearing No. 03-018 denying the application.

**In the Matter of the Application by Seven Rivers, Inc., Fifth Judicial District Court Cause No. CV-2005-062.** Following trial de novo, the 5th Judicial District Court approved the subject application for a temporary change in the location of well and place and purpose of use of groundwater of the Roswell Underground Water Basin. The district court decision is consistent with the State Engineer’s decision in Hearing No. 00-023

Copies of selected State Engineer hearing decisions and the hearing examiner’s report and recommendations are posted on the agency’s website ([www.ose.state.nm.us](http://www.ose.state.nm.us)). Information concerning the status of pending matters on the Hearing Unit docket is also available on the website. To view posted information concerning hearing matters select the category “Water Information” from the index at the agency’s home page.

# Litigation and Adjudication Program



The chief counsel serves as the legal advisor to the State Engineer and advises the deputy chief counsel, who directly supervises the adjudications and administrative proceedings. The Litigation and Adjudication Program (LAP) attorneys are commissioned as special assistant attorneys general who also provide counsel to the State Engineer. LAP attorneys prosecute all water rights adjudications on behalf of the state of New Mexico in state and federal courts. They also represent the Water Rights Division of the Water Resources Allocation Program in all water-related administrative hearings and the State Engineer in appeals of his administrative decisions. LAP attorneys also conduct legal proceedings on the State Engineer's behalf to prevent illegal uses of water. LAP's technical staff in the Hydrographic Survey and Mapping Bureau performs hydrographic surveys and provides the foundation documents for all adjudications. Survey staff members are assigned to specific adjudication bureaus and work closely with legal staff to provide technical support for ongoing adjudications. The chief counsel handles all appeals to state and federal appellate courts.

The attorneys, engineers, surveyors, legal assistants and administrative support staff in the Santa Fe office primarily work on completing the 11 adjudications pending throughout the state. LAP maintains a Lower Rio Grande (LRG) adjudication survey office in Las Cruces, staffed with engineers, surveyors and other technical personnel to support the Lower Rio Grande adjudication and serve as a local contact point for water rights owners involved in that adjudication.

## Water Rights Adjudications

The State Engineer is mandated by law to perform hydrographic surveys and to investigate each stream system and source of water supply in the state, beginning with those used primarily for irrigation. Typically, before an adjudication suit is filed, the Hydrographic Survey and Mapping Bureau performs a hydrographic survey to locate, map, quantify and establish priority dates for all water rights within the geographic scope of the adjudication or within a section of the adjudication if necessary to promote the efficient use of the state's water resources. Following the hydrographic survey, the state Engineer transmits the information to the New Mexico Attorney General through the chief counsel or deputy chief counsel

**Eleven adjudications are currently pending in New Mexico courts, involving water rights within the Rio Grande, Pecos, Upper Colorado River and Lower Colorado River drainage systems.**

for permission to file suit on behalf of the state for the judicial determination of each water right. The legal basis and elements of each water right are reduced to a written offer of judgment and then served on a claimant. This is the subfile phase of the adjudication, during which individual water rights claims are adjudicated between the state and individual defendants, either through negotiation or litigation. Once each water right has been established, defendants may challenge the water rights of others during the inter se (literally "among themselves") phase of the adjudication. After inter se challenges have been resolved, the adjudication court issues a final decree defining the water rights of each and every defendant in the adjudication.

### Chief Counsel and LAP Director

DL Sanders

### Deputy Chief Counsel

Gregory C. Ridgley

### Deputy Director, Support

Joseph Schleicher

### Managing Attorney, Northern New Mexico

Arianne Singer

### Managing Attorney, Lower Rio Grande

Frank Reckard

### Managing Attorney, Pecos River

William S. Cassel

### Hydrographic Survey Bureau Chief

Dario Rodriguez

### Managing Attorney, Administrative Litigation Unit

Hilary Lamberton



Eleven adjudications are currently pending in New Mexico courts, involving water rights within the Rio Grande, Pecos, Upper Colorado River and Lower Colorado River drainage stream systems. These adjudications include the Pecos River stream system (from its headwaters east of Santa Fe to the Texas state line) initiated in 1956, several tributaries to the Rio Grande, filed between 1966 and 1983, the San Juan River stream system, filed in 1975, and the Lower Rio Grande stream system, filed in 1985. Within the scope of these adjudications are most of New Mexico's Indian pueblos and tribes, federal government agencies, irrigation districts, reclamation and conservancy projects, municipalities, counties, community ditches, and thousands of individual claimants. A complexity to be addressed is the fact that some adjudications were filed in state court, while others were filed in federal court.

## Hydrographic Survey and Mapping Bureau

In the initial stages of an adjudication, the hydrographic survey staff gather all the information necessary to legally describe and map a water right and then document their

### The Water Rights Adjudication Process

The state files a lawsuit in state district court for the adjudication of all water rights within the stream system or aquifer. All water rights owners and claimants are joined and become parties in the lawsuit.

In the subfile phase, the state sends an offer of judgment to each water-right claimant. The claimant can agree with or challenge the description of the water rights. After all questions have been resolved, either through negotiation or litigation, the court enters a subfile order to confirm the individual agreement between the state and a water right claimant.

The court issues a partial final decree defining the water rights in the adjudicated area.

findings in a hydrographic survey report. The surveyors search county ownership records, State Engineer water rights records and other historical documents. They also perform field surveys, conduct interviews, and acquire and

analyze aerial imagery, both current and historical. The survey, however, can only be as accurate as the documents it relies upon.

A completed hydrographic survey for all water rights within the scope of the adjudication, or section of the adjudication, is filed with the adjudication court. The survey is a compilation of all identifiable water rights, their elements, a map of the lands to which they are appurtenant for irrigation, and their validity at the time they were surveyed. This filed survey is presumed to be correct, and any party wishing to dispute that information has the burden of proving that it is incorrect.

To make its surveys as accurate as possible, the Office of the State Engineer has implemented the following innovations in recent years:

- The Hydrographic Survey and Mapping Bureau, together with staff from the Water Resources Allocation Program, now conducts field offices prior to beginning a survey. This new procedure is designed to improve the efficiency and accuracy of the initial field survey and to better inform water rights claimants about the survey and the adjudication processes. Disputed issues that may arise between surveyors and claimants are narrowed and more easily resolved in later proceedings. This process has been successfully used in the Zuni and San Juan adjudications.

- All hydrographic surveys are now based on geographic information systems (GIS) and computer mapping technologies. Interpretation of aerial imagery is performed using digital ortho-rectified imagery (computer-generated imagery corrected for visual distortions caused by orientation and terrain), and all field measurements are made with global positioning systems (GPS) receivers. The bureau now applies the digital ortho-rectified imagery technology to all its active surveys.

- In coordination with the Interstate Stream Commission, bureau staff has been acquiring high-resolution digital aerial imagery. This is a long-term program to replace analog aerial photography by computer-based digital imagery. The first digital imagery was purchased in 1999 for portions of the Lower Rio Grande Hydrographic Survey. In 2003, imagery for the San Juan, Costilla and Los Piños/San Antonio areas was acquired. In 2004, imagery for the Peñasco/Mescalero area was acquired. In 2005, the State Engineer and

Interstate Stream Commission organized a statewide acquisition of digital aerial imagery.

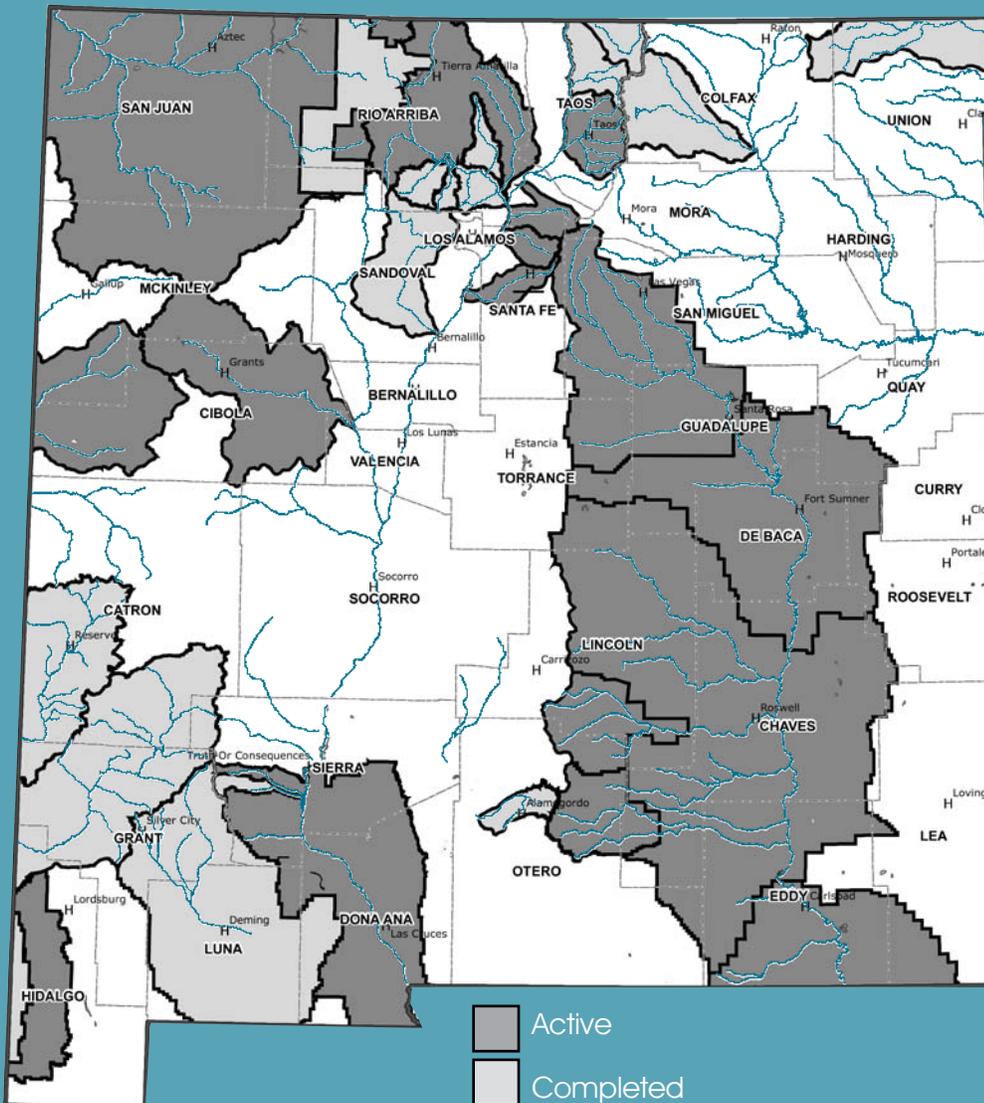
• Survey Bureau staff members also have worked with the Interstate Stream Commission to develop remote sensing mapping tools for use with satellite imagery to perform cropping area estimates for the entire state. These estimates will be used to develop a water use model for New Mexico. Initial results for the Lower Rio Grande area are very encouraging and Survey Bureau staff plans to continue the project using enhanced satellite images from Landsat, a joint project of the U.S. Geological Survey and NASA. These new technologies are proving to be a means for dramatically increasing the accuracy of, and reducing the time necessary to conduct and complete, a survey. New databases created at the Office of the State Engineer also significantly enhance the ability to analyze the results of a survey. These computer-based tools also allow the Office of the State Engineer to readily disseminate hydrographic survey results to the public, to automate the production of maps and basic subfile pleadings, and to effectively track the status of individual subfile proceedings. The effort at closer interaction between engineers and attorneys has proven extremely fruitful: problems are identified and solved as they arise, reducing the need for global corrections at the end of the process.



## Administrative Litigation Unit

The Administrative Litigation Unit attorneys are dedicated to representing the Water Rights Division in administrative hearings before the State Engineer's Hearings Unit on

## Status of Adjudications





protested or aggrieved applications for water use permits. The attorney assigned to an application works with the applicant and anyone filing a protest to informally resolve disputed matters to eliminate the need for a formal administrative hearing. If a matter cannot be resolved informally, the application goes to hearing. Most applications are scheduled for a hearing within nine months of being sent to the Hearings Unit. The Litigation Unit also represents the State Engineer when any administrative decision on an application is appealed to the district court and appellate courts. The unit is currently handling 14 pending appeals: 11 are de novo appeals in district courts and two appeals are pending in the Court of Appeals. Several of the appeals involve applications filed by cities such as Santa Fe, Albuquerque, Ruidoso and Alamogordo. In addition, the unit is handling seven cases in the district courts that involve declaratory judgment actions or petitions for mandamus related to pending applications.

The Litigation Unit was originally formed in 1999 to handle a backlog of over 300 applications. In the 2005 fiscal year, the original backlog was finally eliminated, allowing the unit to take on other vital legal tasks in addition to its current caseload. The unit opened 77 cases involving protested or aggrieved applications in 2006. The unit coordinates with the Water Resources Allocation Program, its various divisions and bureaus, and serves as legal advisor for Water Rights Division district offices. The unit continues its program to educate Water Rights Division district office employees on the various laws and legal procedures that impact their work. The unit also assists the district offices with enforce-

## Court Validates AWRM

### **Tri-State v. D'Antonio, No. D-0725-CV-05-03**

A state district court has validated the State Engineer's approach to Active Water Resource Management in response to a lawsuit brought by a group of water users.

The decision by the 7th Judicial District Court limits the type of documents that can be used to determine administrable water rights and provide more expeditious hearings on distributing water. However, the State Engineer may administer priorities pursuant to 1) a partial final decree or final decree, 2) a subfile order in an adjudication, 3) an offer of judgment confirmed by an adjudication court, and 4) a license issued by the State Engineer.

On December 3, 2004, the State Engineer adopted the Active Water Resource Management ("AWRM") Regulations. These regulations establish the basic framework for water rights administration throughout the state. The AWRM Regulations, adopted following a lengthy public review process, provide for district-specific regulations more particularly tailored to each water basin in the State.

On January 3, 2005, the Middle Rio Grande Conservancy District (MRGCD), Tri-State Generation and Transmission Association, Inc., and the New Mexico Mining Association jointly filed a petition for writ of certiorari in the 7th Judicial District Court requesting that the State Engineer be barred from enforcing the regulations. On December 12, 2005, MRGCD was dismissed without prejudice and that portion of the record was sealed.

In a memorandum decision issued on May 16, 2007, the court held that the regulations violated the New Mexico Constitution, Article III, Section 1, because they provide for priorities to be determined in a manner beyond the scope of the authority granted by the Legislature. The court held that, because Section 72-2-9.1 contains no standards for the State Engineer to determine priority dates, in order to construe Section 72-2-9.1 as constitutional, the current authority of the State Engineer for determining the elements and priority dates of water rights for priority administration is as set forth in Section 72-2-9. The State Engineer therefore may administer priorities pursuant to court decrees and licenses, but not permits or other documents available to the State Engineer.

The court held that Section 72-2-9.1 establishes a compelling government interest. However, the court also held that the State Engineer did not meet its burden to show that the process for hearings under Section 72-2-16 is closely tailored to meet the compelling governmental need for swifter action. To satisfy due process, the court ruled that objections must be decided "promptly" pursuant to Section 73-3-3 "or some other procedure providing similar guarantees of prompt resolution.

## Acequia Outreach

The Acequia Liaison Officer assists the Office of the State Engineer/Interstate Stream Commission in responding to a wide variety of acequia issues. Acequias are community irrigation ditch systems governed by a board of three commissioners and a mayordomo, who distributes the water to the members. Acequias are organized as local political subdivisions under state law and have a number of powers and responsibilities.

This fiscal year, the liaison worked with the Native American water liaison to assist Ohkay Ohwingeh Pueblo resolve a dispute with an acequia over delivery of water. The acequia liaison assists the Water Resources Allocation Program with issues and questions regarding transfers, water banking, and active water management often assisting water masters with issues and questions raised in the field. He also assists the Interstate Stream Commission's Acequia Program with the review of bylaws to qualify acequia applicants for funds both under state legislative appropriations and federal cost share programs. The liaison meets with acequia commissions at their meetings to advise them on a number of issues, including governance, bylaws, easements and water distribution. The liaison visits field offices with staff of the Litigation and Adjudication Program on the Chama and Gallinas adjudications to assist water rights claimants with questions regarding their claims and related acequia concerns.

The liaison assisted the director of the Water Resources Allocation Program with the scheduling of meetings of the Measurement Committee, which assists the State Engineer with the implementation of metering in a number of basins in New Mexico. The liaison's involvement has been significant in convincing the acequias of the need for metering of acequia diversions. This committee, in coordination with the Water Masters Committee, assisted in metering efforts this year in the Mimbres, Nambe-Pojoaque-Tesuque and Gallinas basins.

The liaison also brings to the agency concerns voiced by the New Mexico Acequia Association. The liaison kept the acequia community informed about appeals involving acequia issues pending in the State Engineer's Administrative Litigation Unit. The liaison lectured at the University of New Mexico on acequias and spoke to students from Canada on the same subject.

In the future, the liaison will work with the new community liaison to help educate water users on active water management with special emphasis in the Gallinas basin.



For more information on the status of adjudications, see Appendix A starting on page 76.

For more information on the status of hydrographic surveys, see Appendix B starting on page 79.

For more information on State Engineer decisions appealed in district court, see Appendix C on page 80.

For more information on decisions in the Court of Appeals and New Mexico Supreme Court, see Appendix D on page 80.

ment issues, such as over-diversions or illegal uses of water. Unit attorneys are pursuing enforcement actions along the Rio Chama, the San Juan River, the Pecos River and the Lower Rio Grande. The unit completed its effort to bring all irrigation well owners in the Lower Rio Grande into compliance with the metering conditions of their groundwater permits with all targeted permittees brought into permit compliance. The unit worked with the Lower Rio Grande water master to implement the enforcement plan that met the objective of having all permitted wells (except domestic and stock) metered. In the 2008 fiscal, the Lower Rio Grande enforcement focus will shift to bringing all unpermitted irrigation well owners into compliance with the State Engineer's metering order that requires all such wells to be metered. The same progressive enforcement plan that succeeded with the metering of permitted wells has already begun to be applied to the new group of well owners. The enforcement actions will vary from informal requests to comply with metering requirements to injunction actions in district court if necessary. It is anticipated that at least 1,500 irrigation well owners will be affected by the new enforcement focus.



## Interstate Stream Commission Program

### **Commission Director/Deputy State Engineer**

Estevan López, PE

### **ISC General Counsel**

Tanya Trujillo

### **Planning and Communication Director**

Karin Stangl

### **Rio Grande Basin Manager**

Rolf Schmidt-Petersen

### **Pecos Basin Manager**

Dr. Bhasker Rao

### **Colorado/San Juan Basin Manager**

John Whipple

### **Other Basins, Acequias and Irrigation Projects Bureau Manager**

Craig Roepke

The New Mexico Interstate Stream Commission, created by Chapter 25 of the 1935 legislative session laws, has broad powers to investigate, protect, conserve and develop New Mexico's waters, including both interstate and intrastate stream systems. The Commission has eight unsalaried members appointed by the Governor. The ninth member is the State Engineer, who under state law is the secretary of the Commission. The 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 compacts including the Colorado River, Upper Colorado River Basin, La Plata River, Animas-La Plata Project, Rio Grande, Costilla Creek, Pecos River, and Canadian River compacts. Commission staff is also responsible for compliance with provisions of the U.S. Supreme Court decisions governing water allocations on the Pecos, Canadian and Gila rivers. To assure compact compliance, staff analyzes streamflow, reservoir levels, and other data on the stream systems and implements projects both within and outside of New Mexico.

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. Under a 1987 law, the Commission promotes and funds the development of regional water plans and has been responsible for statewide water planning that integrates and reconciles the regional plans. Under the State Water Plan Act, enacted in 2003, the Commission was directed to coordinate with the Office of the State Engineer and the Water Trust Board to develop a comprehensive state water plan and to review and update it periodically.

The Commission is responsible for programming, budgeting, and directing expenditures from several sources: the Commission operating budget; the Ute Dam Construction Fund, because the Commission owns and operates Ute Dam and Reservoir; the Pecos Land Management Fund, created in 2005 to allow revenues generated from Commission-owned land to be used for land, maintenance and operation of augmentation wells; special appropriations; and two trust funds – the Improvement of the Rio Grande Income Fund and the Irrigation Works Construction Fund. Both trust funds were created by the Ferguson Act of 1898, which set aside grants of trust land in what was then the Territory of New Mexico to generate income for specified beneficiaries.

## Planning and Communication

Strategic planning and effective communication are both critical areas of focus for the Office of the State Engineer and Interstate Stream Commission. Public communication is essential to planning activities that integrate resource-based science and public policy, while complying with both state and federal law.

### Regional Water Planning

New Mexico's State Legislature, in recognition of the state's need for water planning, created the state's regional water planning program in 1987 to balance current and future water demands with available water supplies within the various regions of the state. The Legislature gave the Interstate Stream Commission the responsibility of overseeing a regional planning grant program and the planning process itself. The Commission desig-

## Interstate Stream Commissioners

• **Jim T. Dunlap**, chairman, is a businessman and rancher. The Farmington native owns the L-Bar Ranch and the Farm Center, a John Deere dealership. From 1976 to 1986, Dunlap managed the Lower Valley Water System. He also is a retired vocational agriculture teacher. Dunlap's water-related activities have included being president of the National Rural Water Association, director and founder of the New Mexico Rural Water Users Association, president of the Upper La Plata Water Users Association, president of the Lower Valley Water Users Association, and vice chairman of the San Juan Water Commission.

Dunlap served three terms as a San Juan County commissioner, including two and a half terms as commission chairman, and was a volunteer fireman. He is vice chairman of the San Juan County Communications Authority and a member of the Lion's Club, Secretary of Agriculture's Water 2000 Project, New Mexico Farm Bureau, New Mexico Cattle Growers' Association, and the New Mexico Farm and Ranch Heritage Foundation. Dunlap is also an advisor to the Kirtland Future Farmers of America and Colorado State University. He has served as the president of the Northwest Teachers Association, president of the Farmers Mutual Ditch Association, and president of the New Mexico Vocational Agriculture Teachers Association. Dunlap received a master's degree in vocational education in 1967 and a bachelor's degree in 1954 from New Mexico State University.

• **Julia Davis Stafford** is a fourth-generation rancher from northeastern New Mexico. Since 1873, her family has run the CS Cattle Company, Inc. In 1986, Davis Stafford and her husband returned to the area to run the ranch. From 1983 to 1984, she worked for the New Mexico Public Defender's Office as a staff attorney. From 1985 to 1986, Davis Stafford worked with the New Mexico Environment Department as a staff attorney. During Gary Johnson's administration, she was appointed to the Governor's Blue Ribbon Task Force for Water Issues. Previously, Davis Stafford was involved with the Colfax County Regional Water Plan Steering Committee and currently is an active member of the Cimarron River Watershed Management Group. She serves on the board of Mountain States Mutual Insurance Company. Davis Stafford received a law degree in 1982 and a bachelor's degree in English in 1978 from the University of New Mexico.

• **Judith Espinosa**, a resident of Albuquerque, is the director of the University of New Mexico's Transportation Research Institute. From 1991 to 1994, she was secretary of the New Mexico Environment Department and prior to that she was a manager in the City of Albuquerque's Environmental Health Department. A former member of the National Environmental Justice Advisory Council since 2002, Espinosa was a German Marshall Fund Environmental Fellow selected to participate in the Alliance for Transportation Institute, an international program on environment and transportation. In 1992, former President Bill Clinton appointed her to the Council on Sustainable Development. She was also recognized in 1991 by the United States Environmental Protection Agency for her work on air quality. Espinosa served as state Secretary of Transportation from 1983-1985. Espinosa was awarded a law degree from the University of New Mexico in 1980. She completed a master's degree in public health administration at the University of California in 1975 and received a bachelor's degree in nursing from the University of New Mexico in 1972.

• **Patricio Garcia** is a native of Rio Chama whose family has lived in the Rio Chama Valley since the 1700s. A land-use planner for the past 10 years, Garcia is currently the Planning Department director for Rio Arriba County. In 2000, he was instrumental in obtaining the Western Planners Four Corners Planning Award for an environmental ordinance that protects county farmland and water rights. He has also worked as an outreach worker for mutual domestic water associations, and as a mineral exploration driller at sites including Heron Lake Dam, Cochiti Lake Dam, and Nambé Dam. Garcia belongs to the Rio Chama Acequia Association and is the secretary of the Acequia Martinez y Duranes. He also worked as a Volunteer in Service to America (VISTA). A Vietnam War veteran, Garcia served in the U.S. Navy from 1965 to 1968. Garcia attended New Mexico State University, and received an associate's degree from Northern New Mexico Community College in 1975.

• **Buford Harris** is a farmer from Mesilla whose family has raised cotton and alfalfa in the Mesilla Valley for four generations. Harris studied business and agriculture at New Mexico State University from 1977 to 1981.

• **Blane Sanchez**, a tribal member and resident of Isleta Pueblo, is the first New Mexico pueblo/tribal member to serve on the Commission. His professional work includes facilitation, management of tribal environmental and water quality standards programs, and natural resources management with the Bureau of Indian Affairs. Sanchez is also the first pueblo/tribal member to receive a master's degree from the Water Resources Program at the University of New Mexico, which he earned in December 2005. He received a bachelor's degree in range science from New Mexico State University in 1981.

• **J. Phelps White III** is a retired farmer and rancher and a native of Roswell. He serves as president for the Community Foundation of Chaves County and is a member of the board of directors of the Historical Society for Southeastern New Mexico Foundation. He is a past president of the Roswell Rotary Club, New Mexico Woolgrowers Inc., and New Mexico State University Foundation. White attended the New Mexico Military Institute and served in the U.S. Army. He received a bachelor's degree of business administration from the University of Texas in 1955. He served as an officer in the U.S. Army from 1955 to 1957.

• **James Wilcox**, a resident of Carlsbad, is a consultant to the state potash industry. He worked for Mosaic Potash for 32 years prior to retiring in 1999. He continues to serve Mosaic as a consultant. While employed at Mosaic, he was responsible for the Human Resources, Safety, and Public Relations departments, as well as management of water resources. He also served as chairman of the National Mining Association's Safety Committee, chairman of the U.S. Labor Department's Mining Industry Committee on Substance Abuse, and chairman of the Palmer Drug Abuse Program, in Carlsbad. Wilcox has received numerous awards of recognition from his peers, the State of New Mexico, and the U.S. Department of Labor for his efforts to enhance safety in the mining industry.





nated 16 water planning regions and has worked with all of them to prepare their respective regional water plans. Once a regional water plan is completed, the Office of the State Engineer and Commission staff must review it. A regional water plan is considered completed when the Commission accepts it.

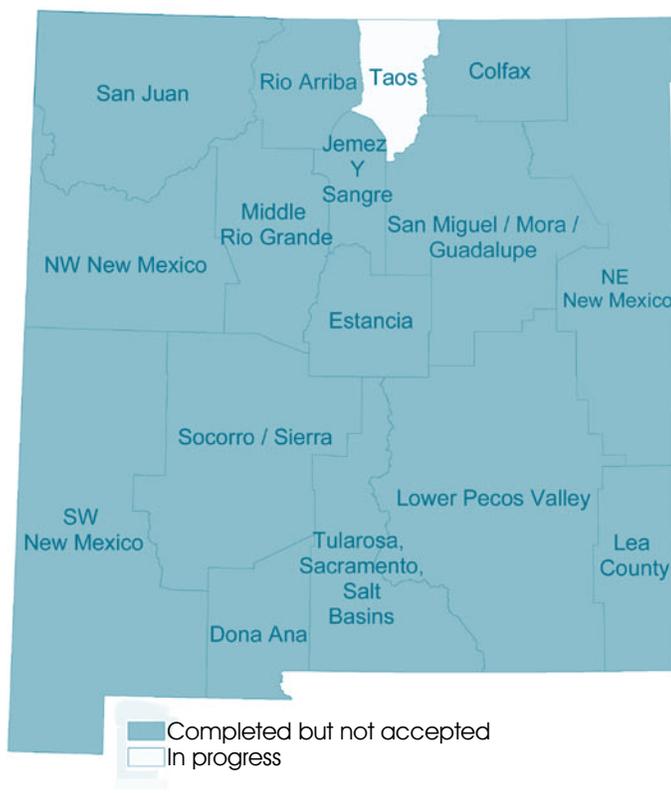
Significant progress was made in the completion of regional water plans during this fiscal year. The Interstate Stream Commission accepted the Northeastern New Mexico Regional Water Plan in April 2007. So far, 15 of the 16 water-planning regions in New Mexico have completed their plans, and the plans have been accepted by the Commission. The final plan, for the Taos Region, is expected to come before the Commission for acceptance in 2008.

Work to integrate New Mexico's first State Water Plan, completed in 2003, with regional water plans continues. The State Water Plan/Regional Water Plan Ad Hoc Committee has met almost monthly throughout 2006 and 2007. In addition to continuing its work as directed by the Commission to provide advice on how to resolve policy differences between the State Water Plan and regional plans, the committee also has begun discussions

on how to approach integrating regional water planning efforts with the State Water Plan, as provided for in the State Water Plan statute (72-14-3.1 NMSA 1978).

This regional water planning stakeholder group provides the necessary regional perspective and comprises a statewide steering committee for efforts to update the State Water Plan in 2008, as mandated by the state Legislature. The Planning and Communication Division staffs and facilitates these meetings. Planning staff directed a synthesis study, completed in 2007, of the completed 15 regional plans toward integration with the State Water Plan. Planning staff will continue to develop the study to allow for integration of regional plans into the State Water Plan.

## Status of Regional Water Planning



### Statewide Water Planning

Progress continues to be made on all 98 implementation strategies identified in the State Water Plan. A detailed account of that progress was published in *Progress Report: State Water Plan*, completed in June 2006. This report was mailed in July 2007 to legislators, city and county officials, water users, opinion leaders, and the general public to set the stage for the work needed to update the State Water Plan in 2008.

Also in anticipation of the State Water Plan update, staff has launched a comprehensive review of the State Water Plan to be complete by mid-2008. Planning staff is working closely with other agency staff to review the policy sections for technical accuracy, as well as to update the sections to outline programs and policies that will continue to provide for the best management of current and future water issues facing New Mexico. The review will also have input from the Governor's Blue Ribbon Task Force on Water, other state agencies, and the State Water Plan/Regional Water Plan Ad Hoc Committee.

Technical studies are already underway for the update. Updated population estimates for all 16 regions will provide a basis for updating water use projections. Concurrently, regions rely on this data for maintaining the technical accuracy of regional water plans as those plans are updated. This applied research forms the basis of population estimates

and projections for the entire state, which eventually will be made available to all state agencies. The population projections report will be completed by 2008.

The State Water Plan update in 2008 will address conditions that have changed since 2003, including awareness of climate variability, the state's population growth of more than 2 million, new and changed water laws, court decisions, and completion of almost all regional water plans.

## Canadian River Basin Activity

### INTERSTATE STREAM ADMINISTRATION

#### Canadian River Compact/*Oklahoma and Texas v. New Mexico Decree*

Work on the Canadian River Basin was focused on the dams at Ute and Eagle Nest reservoirs, both operated by the Interstate Stream Commission. Ute Reservoir begins 32.1 miles upstream from where the Canadian River crosses into Texas. The Commission owns and operates the dam and reservoir, which was constructed in 1962. Originally built with a capacity of 110,000 acre-feet, the construction of a raised spillway in 1984 increased capacity to over 246,600 acre-feet but, the conservation pool is limited to 200,000 acre-feet under the 1993 U.S. Supreme Court decree in *Oklahoma and Texas v. New Mexico*.

At the upstream end of the basin, the Commission is also responsible for regulating flows out of Eagle Nest Reservoir in support of the Cimarron River water users. The reservoir was purchased in 2002 by the New Mexico Game and Fish Commission. Eagle Nest dam operations are the responsibility of the Interstate Stream Commission under the terms of a joint powers agreement with the New Mexico Department of Game and Fish.

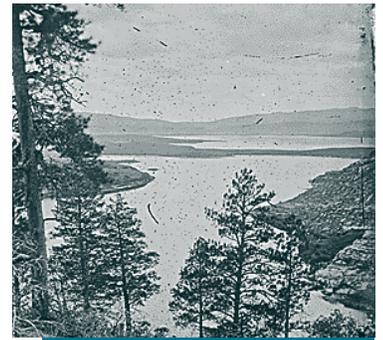
*Canadian River Compact.* As of September 2006, the elevation of Ute Reservoir was 3785.8 feet above mean sea level, or MSL. On September 3, the Commission began the release of water stored above the current year operating limit of 3785.5 feet above MSL and the level remained below that elevation for the remainder of the year.

Repairs to the Ute Reservoir spillway were completed in October 2006. This work consisted of remedial concrete work on the downstream apron slab of the spillway. Expansion joints were cut and filled with joint sealant in the slab, with additional minor repair work scheduled for October 2007.

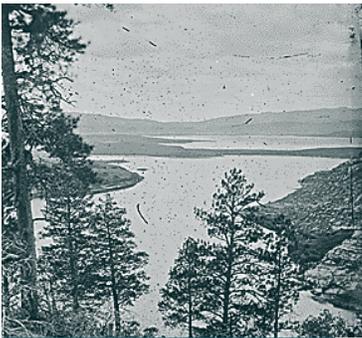
In June 2007, Dam Safety Bureau staff completed the probable maximum precipitation/probable maximum flood analysis of the watershed in support of the operation of Ute Dam. The analysis resulted in a maximum water surface elevation of 3812.6 with a 75 percent probable maximum precipitation, resulting in an elevation of 3802.

*Cimarron Water Users Negotiated Settlement.* Last year a settlement was reached and signed among the holders of rights to the water impounded by Eagle Nest Reservoir. This year, work began on implementing the settlement, which requires a series of upgrades to the distribution system and the revision of the operations manual. Work on both of those tasks, in partnership with the Cimarron water master, began in spring 2007 and will continue into 2008.

Structural design revisions to the dam were also initiated this year, with the finalization of an access road design. During the winter, divers inspected the gate valves and made repairs. Additional modifications to the more than 90-year-old, concrete-arch dam were also initiated last year by finalizing an engineering design contract.



Above: 1935 – A boat dock at Eagle Nest Lake. (Burton Frasher, Frasher Foto Postcard Collection, Pamona Public Library.) Left: Eagle Nest Lake today.



For information on stream activity in the Pecos River Basin, see page 66. For the Rio Grande Basin, see page 71. For acequias and other community irrigation districts, see page 74.

Other work included the construction of a scale model of the dam by the private contractor. Modeling runs will be performed to analyze the impact to the dam during high flow events. This work, funded by the state Department of Game and Fish, is intended to bring the dam into conformity with requirements of the Dam Safety Bureau. The Commission is managing the engineering design work and the Department of Game and Fish will oversee construction.

## FEDERAL MANAGEMENT ISSUES

### Eastern New Mexico Rural Water Project Environmental Assessment

A contractor was selected by the Eastern New Mexico Rural Water Authority during the year and work began on National Environmental Policy Act documentation for the funding and oversight of the project by the U.S. Bureau of Reclamation. Money to develop the environmental assessments would come from Water Trust Board funds. Public scoping meetings were planned for late summer of 2007

### Arkansas River Shiner Management Plan

The Commission continued to support the Arkansas River Shiner Management Plan. The plan applies to the Canadian River from Lake Meredith in Texas to Ute Lake in New Mexico and provides for control of salt cedar, maintenance of current levels of base flows, management of activities of off-road vehicle enthusiasts, and other voluntary activities that will maintain and enhance the existing habitat of the shiner. Commission staff and contractors conducted population surveys upstream of the reservoir on the Canadian River and on Ute Creek in May 2007. A diverse range of fish was found but no Arkansas River shiners.

## WATER PLANNING AND DEVELOPMENT

### Ute Reservoir Master Plan

In 2006, work continued on the Ute Reservoir Master Plan. Most of the staff effort was expended on an application to use Commission flowage easement to construct a golf course and other amenities for the Ute Lake Ranch private community on the south shore of the reservoir. The primary issue negotiated with the development company was a protective plan for the control of runoff and subsurface flow to the reservoir. Because of

the current and future use of the water for both recreation and drinking water, stringent limitations on the discharge of nutrients (nitrogen and phosphorus) and pesticides were required.

Commission staff, with contributions from state Environment Department, Surface Water Quality Bureau, and the developer consultant negotiated one of the most protective storm water quality control plans in the state. The plan provides for retention of all storm water in lined ponds on the golf course, in addition to grassy swales and buffer strips, drywells, and other "best management practices" designed to keep pollutants from entering the reservoir. In addition, a spill control and prevention plan, an adaptive turf management program, and integrated pest management system are all being implemented to minimize pollutant release at the source. Both the development staff and the Commission are committed to regular inspection and monitoring of the system.

Construction storm water discharge permitting is being completed by the developer under

the National Pollutant Discharge Elimination System. Additional permitting under the U.S. Army Corps of Engineers 404 permit program is also in place. To provide long-term authority to enforce these best management practices and develop other infrastructure, a Ute Lake Ranch Water and Sanitation District is being initiated by the developer under Article 21 of Chapter 73 of the state statutes.

## New Canadian Basin Manager

Mark Murphy became the new manager of the Canadian River Basin in the 2006-2007 fiscal year. Murphy is in charge of managing the operation of the Ute Reservoir to ensure New Mexico stays compliant with the Canadian River Compact. He will also be managing settlement agreements for the Eagle Nest Reservoir to conserve and administer surface water use.

Murphy was previously employed for seven years as a water resources scientist for the URS Corporation. He also worked as a water resources scientist for the Pacific Northwest National Laboratory, New Mexico Mining and Minerals Bureau, and Public Service Company of New Mexico. He taught hydrogeology and geology courses at Heritage College in Toppenish, Washington, and Arizona State University in Phoenix, Arizona.

In 1977, Murphy earned a bachelor of science degree in geology from the University of California Santa Cruz. He earned a master of science degree in geology in 1985 from the University of New Mexico. In 1990, he earned a Ph.D. in geology from Johns Hopkins University in Baltimore, Maryland.

Numerous boat dock permits, flowage easement relinquishments, and land exchanges and sales occurred along the margin of the reservoir. The sales and relinquishments were primarily small changes to state property boundaries that adjusted them down to the 3787-elevation contour or 3809-elevation flowage easement.

A water quality management plan was initiated during the year and resulted in a preliminary assessment of the condition of the reservoir. A draft shoreline management plan was also contracted. The draft plan included recommendations on water quality objectives and shoreline protection zones. During the course of this work the joint powers agreement for development of the Master Plan expired, and it was decided by the Commission not to renew it because of a lack of agreement among the signatories. The Commission approved the creation of a Ute Reservoir Advisory Group in its place that would provide a conduit for stakeholder input and consensus on the management of the reservoir and surrounding land. This input would be used to continue development of the Master Plan and eventually, a restart of the joint powers agreement. The first meeting of the Advisory Group was in late summer of 2007.

#### **Eastern New Mexico Rural Water Authority Assistance**

Assistance with the planning for the Ute Reservoir Pipeline continued through the year. The pipeline will be the main delivery system of the Eastern New Mexico Rural Water Project. The Rural Water Authority, with input from Commission staff, completed a 10 percent engineering design in October 2006. Federal authorizing legislation for the project was introduced toward the end of the congressional session in fall 2006 but stalled. Reintroduction of federal authorizing legislation is anticipated in late 2007 or early 2008, with a field hearing tentatively scheduled for summer 2007. The legislation is drafted with 75 percent of the cost allocated to the federal government. As of June 2007, the New Mexico Water Trust Board had appropriated about \$7.5 million to various aspects of the planning and design of the project.

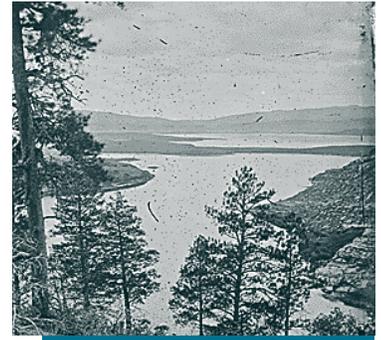
## **Colorado River Basin Activity**

### **INTERSTATE STREAM ADMINISTRATION**

#### **Upper Colorado River Basin Compact**

The Upper Colorado River Basin Compact, signed by Arizona, Colorado, New Mexico, Utah, and Wyoming in 1948 and ratified by Congress in 1949, created the Upper Colorado River Commission to administer its provisions. The commission consists of representatives of the United States and all compact states except Arizona and has an office and staff in Salt Lake City, Utah. During the 2006-2007 fiscal year, the commissioners and staff directed much of their effort toward investigating the coordinated operation of Lakes Powell and Mead on the Colorado River. Because of the recent extreme drought in the Colorado River Basin, storage of water in Lakes Powell and Mead is at relatively low levels. A number of meetings were held, including meetings of the seven Colorado River Basin states and the U.S. Department of the Interior, to discuss potential management strategies for operation of the two reservoirs under such low storage conditions. The commissioners and staff also worked to support congressional appropriations for authorized projects, participated in salinity control program activities and the Glen Canyon Dam Adaptive Management Program, and prepared analyses of environmental impact statements and federal water resource legislation.

In 1988, the Bureau of Reclamation made a hydrologic determination that the critical period yield available to the upper basin is at least 6 million acre-feet annually, including Colorado River Storage Project (CRSP) reservoir evaporation. In May 2006, the Bureau of Reclamation issued for review a draft determination update that refines the CRSP reservoir evaporation assumptions, and consequently, indicates that more of the critical period yield is available for use within the upper division states as compared with the 1988 determination. The Upper Colorado River Commission on June 5, 2006, resolved that it supports determinations by the secretary of the U.S. Department of the Interior that (1) at least 5.76 million acre-feet of water per year is available for use by the upper





basin, exclusive of shared CRSP reservoir evaporation, and (2) sufficient water is reasonably likely to be available to fulfill a proposed Navajo Reservoir water supply contract for the Navajo Nation's uses in New Mexico under the planned Navajo-Gallup Water Supply Project. The Bureau of Reclamation finalized its hydrologic determination update in April 2007 after consultation with the lower division states, and the secretary of the Interior signed the updated hydrologic determination on May 23, 2007. New Mexico's upper basin depletion schedule was modified for the purpose of updating the hydrologic determination and reflects the San Juan River Basin in New Mexico Navajo Nation Water Rights Settlement Agreement signed by the State of New Mexico and the Navajo Nation on April 19, 2005.

The Upper Colorado River Commission in March 2006 completed a preliminary feasibility study for enhancing Colorado River flow through wintertime cloud seeding. North American Weather Consultants conducted the study for the commission. The study predicts that Colorado River stream flow may be increased by up to an average of 1.3 million acre-feet per year through winter cloud seeding; however, some of this increase is already being realized from existing seeding programs, and there is a large amount of uncertainty in attempting to quantify the amount of water generated by cloud seeding. Existing cloud seeding programs in the upper basin were expanded during the winter of 2006-2007, and the Colorado River Basin states during fiscal year 2007 continued discussions regarding possibilities for improving the water supply of the Colorado River stream system through wintertime seeding to improve snowpack in the Rocky Mountains.

#### **La Plata River Compact**

The State Engineers of Colorado and New Mexico administer the provisions of the La Plata River Compact. Disagreements between the state engineers over Colorado's stateline deliveries of water to New Mexico under the compact continue to occur from time to time.

The La Plata Water Conservancy District in Colorado during fiscal year 2007 continued planning for the pro-

## **The Interstate**

**Colorado River Compact.** Signed in 1922, the Colorado River Compact was ratified by California, Colorado, Nevada, New Mexico, Utah and Wyoming by 1929 and approved by Congress in the Boulder Canyon Project Act of 1929. Although Arizona did not ratify the compact until 1944, the President of the United States proclaimed it effective in 1929. It apportions the use of waters of the Colorado River system to the upper and lower basins. Parts of Arizona, Colorado, New Mexico, Utah and Wyoming constitute the upper basin. The lower basin includes parts of Arizona, California, Nevada, New Mexico, and Utah. The compact does not provide for an administrative commission. Instead it provides that each state, through the state official charged with water rights administration, together with certain agencies of the federal government, shall cooperate to promote the systematic determination and coordination of the facts as to flow, appropriation, consumption and use of water in the Colorado River basin; ascertain and publish the annual flow of the Colorado River at Lee Ferry, the point of division between the two basins; and perform such other duties as may be assigned by mutual consent of the signatory states.

**Upper Colorado River Basin Compact.** Signed in 1948 by Arizona, Colorado, New Mexico, Utah, and Wyoming, and approved by Congress in 1949, the compact creates the Upper Colorado River Commission to administer its provisions with members representing the United States, Colorado, New Mexico, Utah, and Wyoming. Arizona is not included. The UCRC maintains an office and staff in Salt Lake City, Utah. Members of the Commission staff serve as engineering and legal advisers and assist the individual state commissioners.

**La Plata River Compact.** Dividing the waters of the La Plata River between Colorado and New Mexico, the La Plata River Compact was signed in 1922 and approved by Congress in 1925. The compact provides that the state engineers of the two states shall administer the waters of the La Plata River in accordance with the terms of the compact. This requires daily administration of the flows of the La Plata River except from December 1 through February 15. The compact also provides for cooperative collection, exchange, and publication of streamflow data. Interstate Stream Commission staff monitors and evaluates the daily operation of the river and assists the State Engineer in administering the compact. The La Plata Conservancy District employs a water master to supervise water diversion within the district in New Mexico. The water master and the district's board of directors cooperate with commission staff to collect data necessary for the daily operation analysis.

**Rio Grande Compact.** Signed in 1938, with Colorado, New Mexico, and Texas as parties and approved by Congress in 1939, the Rio Grande Compact apportions the waters of the Rio Grande above Ft. Quitman, Texas, among the three states. It provides for administration by a compact commission consisting of the state engineers of Colorado and New Mexico, a commissioner appointed by the Governor of Texas, and a representative

posed Long Hollow Dam and Reservoir for uses in Colorado. Inflow to the La Plata River from Long Hollow may account for a significant portion of the flow of the river at the stateline gauge during periods of low flow. The New Mexico State Engineer, via letter to the Colorado State Engineer dated January 31, 2006, expressed support for Colorado developing its La Plata River Compact apportionment through the Long Hollow Reservoir Project, stating also hope that through the construction of the reservoir and development of an acceptable long-term operation plan Colorado will in the future comply with its compact obligations.

## FEDERAL MANAGEMENT ISSUES

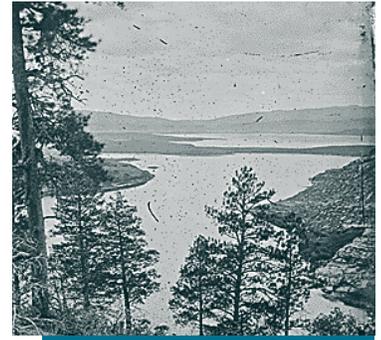
### Operating Plan for Colorado River Reservoirs

The Colorado River Basin Project Act requires the secretary of the U.S. Department of the Interior, in consultation with the Colorado River Basin states and other interests,

to prepare the annual operating plan for the Colorado River system reservoirs. The plan is developed through meetings of the Colorado River Management Work Group, and the secretary of the Interior approved the 2007 plan in December 2006.

### Colorado River Operations and Water Delivery Shortage Guidelines

The Department of the Interior in June 2005 published in the Federal Register a notice that the Bureau of Reclamation has been directed to develop additional Colorado River management strategies to address operations of Lakes Mead and Powell under low reservoir storage conditions. Such strategies could identify those circumstances under which the Department of the Interior would reduce annual water deliveries from Lake Mead in the lower basin or releases from Lake Powell and the manner in which annual operations would be modified. In response to the Federal Register notice, the seven Colorado River



## Stream Compacts

of the United States. The Rio Grande Compact establishes delivery obligations for Colorado and New Mexico. It provides for debits and credits to be carried over from year-to-year until extinguished under provisions of the compact. Accrued credits or debits are an important element of compact accounting. The Engineer Advisers to the compact commissioners meet prior to the annual Rio Grande Compact Commission meeting to prepare data on scheduled and actual delivery of water and other related topics. The U.S. Geological Survey acts as Secretary to the Compact Commission under an annual cooperative agreement, and prepares monthly and annual reports and maintains the official Compact Commission files.

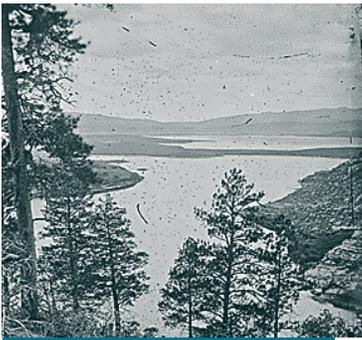
**Costilla Creek Compact.** Representatives of Colorado and New Mexico signed the Costilla Creek Compact in 1944, and Congress approved it in 1946. The compact was amended through a similar process in 1963. The compact provides for delivery of apportioned water to users in New Mexico and to Colorado at interstate points of delivery on the New Mexico-Colorado state line. It provides for an administrative commission composed of the official in each state charged with administering public water supplies.

The Costilla Creek irrigation system begins south of the Colorado state border in the Sangre de Cristo Mountains of north-central New Mexico and extends some 40 miles downstream via Costilla Creek and irrigation ditches onto the high desert plains of New Mexico and Colorado. The compact requires daily administration of the direct flow and storage waters of the system during the irrigation season. A water master performs this function.

**Pecos River Compact.** Signed by New Mexico and Texas in 1948 and approved by Congress the following year, the compact provides for a compact commission to administer its provisions. Under state law New Mexico's Pecos Compact commissioner is appointed by the Governor to serve for a term of two years. Texas successfully challenged New Mexico's compliance with the compact and in 1988 the U.S. Supreme Court entered an amended decree governing New Mexico's delivery of Pecos River water to Texas. Under the decree, New Mexico is prohibited from allowing a net shortfall in its deliveries to Texas. The Commission's Pecos River water rights lease/purchase program has increased the flow of water to the state line.

**Canadian River Compact.** Signed in 1950 with New Mexico, Oklahoma, and Texas as parties and approved in 1952, the compact provides for a compact commission to administer its provisions with one commissioner for each state and one for the United States.

**Animas-La Plata Project Compact.** The states of Colorado and New Mexico concluded the Animas-La Plata Project Compact, which was approved by Congress in 1968. The compact does not provide for an administrative compact commission. It establishes equal priority for the water supply to be diverted by the project for uses in New Mexico with the priority for the project granted by the Colorado state court.



Basin states entered into discussions on the coordinated operation of the Colorado River mainstream reservoirs. On August 25, 2005, the governors' basin States representatives transmitted to the Interior secretary a letter expressing conceptual agreement in the development and implementation of broad strategies for improved management and operation of the Colorado River, including coordinated reservoir management and lower basin shortage guidelines, system efficiency and management, and water supply augmentation. Further negotiations between the states culminated in a preliminary draft proposal for interim Colorado River operations through 2025 that was submitted through a Bureau of Reclamation scoping process to the secretary of the Interior via letter dated February 3, 2006. The preliminary seven basin states' proposal includes (1) shortage guidelines that identify circumstances under which the Interior secretary would reduce annual deliveries from Lake Mead to the lower division states for consumptive uses below 7.5 million acre-feet; (2) guidelines for the coordinated operation of Lakes Mead and Powell designed to improve operation of the two reservoirs, particularly under low storage conditions; (3) guidelines for the storage and delivery of water in Lake Mead to increase flexibility in water management for meeting demands from Lake Mead, which guidelines would allow for the storage and delivery of non-system water, exchanges and conserved water; and (4) modification of the substance and term of the interim surplus guidelines published in the Federal Register on January 25, 2001. A seven basin states agreement was drafted in support of the provisions of the proposal, not to affect the yield available to the upper basin for development.

The Department of the Interior in March 2006 published in the Federal Register a notice of public availability of a scoping summary report on the development of lower basin shortage guidelines and coordinated management strategies for the operation of Lake Powell and Lake Mead, particularly under low reservoir conditions. The notice also indicated that, based on information presented in the report, the department was undertaking preparation of a draft final environmental impact statement. The department anticipated the elements of the proposed action would include items from the preliminary seven basin states' proposal, and the proposed action would be designed to delay the onset and magnitude of shortages and maximize the protection afforded to water supply, hydropower production, recreation and environmental benefits by water storage in Lakes Powell and Mead. The Bureau of Reclamation in February 2007 completed the draft final environmental impact statement, which included the preliminary seven basin states' proposal as one of the alternatives analyzed but did not identify a preferred alternative.

After further discussion and negotiation, the governors' basin states representatives on April 23, 2007, signed an Agreement Concerning Colorado River Management and Operations that memorializes the consensus recommendation to the Interior secretary for Colorado River management and operations during an interim period through 2025, sets forth agreements regarding pursuit of system augmentation and efficiency projects, and establishes a process for the resolution of claims and controversies between the states in an effort to set aside long standing disputes on the river. The seven basin states on April 30, 2007, transmitted to the Interior secretary, via letter, a refined basin states' proposal and their recommendation that the basin states' alternative analyzed in the draft final environmental impact statement together with the modifications outlined in the letter and included in attachments that make up the proposal, be selected as the preferred alternative in the final environmental impact statement and the selected action in the record of decision. The basin states' proposal consists of the following documents: (1) the Agreement Concerning Colorado River Management and Operations; (2) the proposed interim guidelines for Colorado River operations, which builds on the preliminary seven basin states' proposal and would replace the interim surplus guidelines, establish guidelines for coordinated operations for Lakes Powell and Mead, establish shortage guidelines for lower basin uses in the United States, and establish parameters for the intentional creation, storage and release of conserved, exchanged or imported water; (3) a draft forbearance agreement among the lower division states and their major water users to facilitate implementation of a program for the intentional creation, storage, and release of surplus water

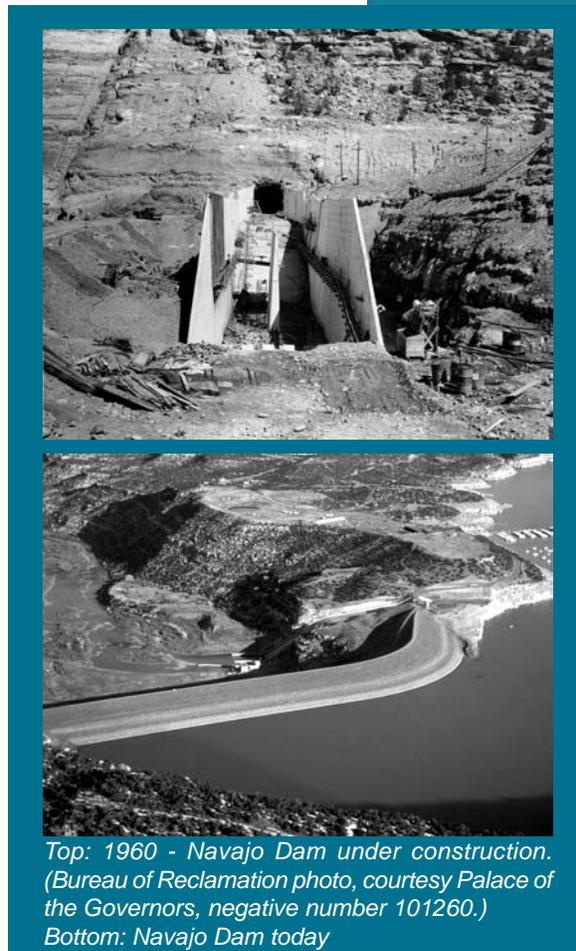
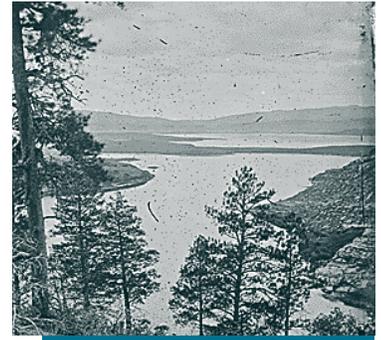
through conservation, efficiency projects, exchange or importation of water; (4) a shortage sharing agreement between Arizona and Nevada premised on specific reductions in deliveries within the United States by the Interior Secretary dependent upon Lake Mead storage elevations; and (5) delivery agreements to enable and obligate the United States to deliver intentionally created surplus to entities that create it in conformance with relevant provisions of the proposed interim guidelines and the forbearance agreement.

The Bureau of Reclamation in June 2007 announced the preferred alternative for the final environmental impact statement. The preferred alternative incorporates the key elements of the basin states' proposal. Discussions between the Interior and state departments regarding possible reductions in water deliveries to Mexico under Article 10(a) of the Mexican Water Treaty of 1944 and possible Mexican participation in the intentionally created surplus program were had during fiscal year 2007 and are ongoing. Possible opportunities for non-governmental organizations to participate in the intentionally created surplus program for environmental purposes are also being considered. The Bureau of Reclamation is scheduled to complete the final environmental impact statement in December 2007.

### **Glen Canyon Adaptive Management Program**

The Glen Canyon Adaptive Management Program is in its 10th year of efforts to improve conditions in the Colorado River below Glen Canyon Dam for populations of endangered fish species and other uses of the river. The Glen Canyon Adaptive Management Work Group is a multi-state, cross-interest committee chartered by the secretary of the Interior to provide advice to the secretary on the Adaptive Management Program. The Adaptive Management Work Group also directs the work efforts of a Technical Work Group, which provides technical information to support management and activity recommendations for the program. The State Engineer, or Interstate Stream Commission staff as alternate, represents the State of New Mexico on the Adaptive Management Work Group, and Commission staff represents New Mexico on the Technical Work Group. The Grand Canyon Monitoring and Research Center, organized under the U.S. Geological Survey, operates within the Adaptive Management Program to define research objectives and develop monitoring programs to meet information needs of the program. Goals of the Adaptive Management Program are to (1) protect and improve the aquatic food base; (2) maintain or attain viable populations of existing native fish species; (3) restore populations of species that have been wiped out; (4) maintain naturally reproducing rainbow trout above the Paria River; (5) maintain or attain viable populations of the Kanab Ambersnail; (6) protect or improve the biotic riparian and spring communities; (7) establish water temperature, quality and flow dynamics to achieve ecosystem goals; (8) maintain or attain levels of sediment storage to achieve ecosystem goals; (9) maintain or improve the quality of recreational experiences for users; (10) maintain power production capacity and energy generation, and increase where feasible and advisable, within the framework of ecosystem goals; (11) preserve, protect, manage and treat cultural resources; and (12) maintain a high quality monitoring, research and adaptive management program.

The program has emphasized the conservation of sediment resources and sand bars in the Colorado River through the Glen, Marble and Grand canyons downstream from Glen Canyon Dam, and the control of non-native fish species detrimental to endangered native fish. Sediment and sand bars provide for native fish habitat, riparian vegetation, rafter



*Top: 1960 - Navajo Dam under construction. (Bureau of Reclamation photo, courtesy Palace of the Governors, negative number 101260.)*

*Bottom: Navajo Dam today*



campsites and protection of archeological sites. Pursuant to recommendations of the Adaptive Management Work Group, a short-duration, high flow beach-habitat building test was conducted in November 2004 to investigate redistribution of stored sediment onto beaches through the Grand Canyon by making a large release from Glen Canyon Dam in excess of power plant capacity. Monitoring since the November 2004 test flow showed a significant increase in sand bar volume in upper Marble Canyon, which historically has been one of the most sediment limited reaches of the river, and a good retention of the sand deposited on the beaches in this reach. These findings suggest that strategically timed high flow releases may be a possible strategy for rebuilding beaches and sandbars in upper Marble Canyon. There was less or no increase in beach areas in lower Marble Canyon as a result of the November 2004 test flow. Although the sediment storage condition reached a level sufficient to trigger a beach-habitat building flow test in late 2006, the Adaptive Management Work Group did not recommend that the Secretary of the Interior conduct such a test in 2006 due to uncertainties in the results of the 2004 test flow, the possibility of damaging other resources in the Grand Canyon, and questions over the adequacy of funding to provide necessary data collection and monitoring of the test flow effects. The Adaptive Management Work Group did recommend that the Grand Canyon Monitoring and Research Center prepare a science plan to implement a beach-

## Colorado Basin States Reach Agreement

Water officials from the seven Colorado River Basin states this year signed an agreement that will remain in place until 2025.

The Secretary of the Interior, in conjunction with the seven Colorado River Basin states, is currently working on Lower Colorado shortage guidelines and coordinated operating criteria for Lake Powell and Lake Mead under low reservoir storage conditions. The "Basin States' Alternative" is one of five alternatives included in a U.S. Bureau of Reclamation environmental impact statement released on February 28, 2007.

The signing of the agreement is a significant event in improving Colorado River water operations and greatly reduces the threat of litigation among the basin states over reservoir operations and water uses through 2025.

Each of the basin states affirms the right of the other states to develop Colorado River water. The agreement commits all involved parties to pursue alternative dispute resolution in lieu of filing suit for the duration of the agreement.

The agreement helps protect New Mexico's ability to fully develop its apportionment of water under the Upper Colorado River Compact, thus preserving the opportunity to implement the Navajo-Gallup pipeline project and the Navajo Settlement. Water for the project fits within New Mexico's compact apportionment, settles the Navajo Nation's water rights claims in the San Juan Basin, and provides a safe, secure source of water to people who currently haul water for several miles to meet their basic domestic need.

The intent of the "Basin States Alternative" analyzed in Reclamation's environmental statement – and the provisions in the newly signed agreement – are to delay the onset of water shortages in the Lower Division States

(Arizona, California, and Nevada) and to minimize their extent and duration. At the same time, the intent is to maximize the Upper Division States' protection provided by having Lake Powell storage available to release to meet the Colorado River Compact requirement that 75 million acre-feet of water flows past Lee Ferry in each 10-year period. The "Basin States' Alternative" will provide for more efficient operation of the system reservoirs for the benefit of both the Upper and Lower Basins.

An important element of the seven states' proposal for the Interior Secretary's shortage guidelines is developing "intentionally created surplus" (ICS) accounting, which provides a means for Lower Basin water contractors to add water to the system through conservation or importation and for the Secretary of the Interior to release water in the future to the Lower Division States (Arizona, California, or Nevada) that added the water. Because Lower Division states are using their full entitlements of Colorado River water in "normal" water supply years, it is necessary for one of the states to agree to use less water (or "forbear") to allow another state to create ICS water that can be used in subsequent, water-short years. The necessary forbearance authority has been granted by the Arizona State Legislature and the forbearance agreement has been signed by the Arizona Department of Water Resources and the Southern Nevada Water Authority.

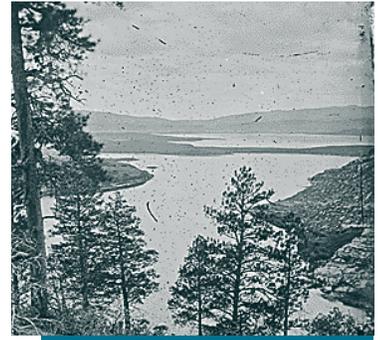
The Colorado River is managed and operated under numerous compacts, federal laws, and court decisions. In 1922, seven states negotiated the Colorado River Compact with the federal government, which defined the relationship between the upper basin states -- where most of the river's water supply originates -- and the lower basin states -- where most of the water demands were developing. Each basin was apportioned 7.5 million acre-feet per year.

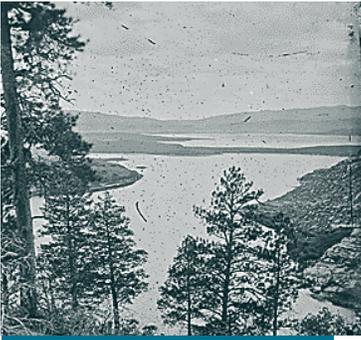
habitat building flow test when the sediment in storage above Grand Canyon and hydrology present the opportunity for such a test in the future. The science plan would detail the costs and the data collection activities that would be undertaken to monitor resources and measure results of a short-duration, high flow beach-habitat building test. Estimated costs for the monitoring and research associated with beach-habitat building flow tests are \$1 million to \$2 million per test.

The Center for Biological Diversity, Sierra Club, Glen Canyon Institute, Living Rivers, and Arizona Wildlife Federation on February 14, 2006, filed suit against the Secretary of the Interior and the Bureau of Reclamation in the U.S. District Court in Arizona claiming that the results of the Adaptive Management Program have not resulted in the United States operating Glen Canyon Dam in a way that complies with the Grand Canyon Protection Act, the Endangered Species Act and the National Environmental Policy Act. The suit sought an order compelling the Bureau of Reclamation to reinstate consultation with the U.S. Fish and Wildlife Service in the face of new information regarding the effects of dam operations on endangered fish species and to supplement the final environmental impact statement on the operation of Glen Canyon Dam. The Department of the Interior negotiated a settlement to the suit and agreed to prepare a final environmental impact statement on the Glen Canyon Dam Long-Term Experimental Plan that includes experimental options to protect and enhance the resources and uses of the Colorado River below the dam and through the Grand Canyon to Lake Mead. At the request of the secretary of the Interior, the Adaptive Management Work Group prepared recommendations for four experimental options to be considered for the Long-Term Experimental Plan for operation of Glen Canyon Dam to protect and enhance the resources of the Colorado River and the Grand Canyon. The options include construction and installation of temperature control devices on the outlet penstocks at the Glen Canyon Dam power plant to regulate the temperature and other water-quality parameters (e.g., dissolved oxygen) of water released from Glen Canyon Dam.

Public notice of the final environmental impact statement was published on November 6, 2006, and comments were received from the public and interested concerns during fiscal year 2007. The Interstate Stream Commission accepted an invitation from the Department of the Interior to participate as a cooperating agency in the preparation of the final environmental impact statement. The Bureau of Reclamation issued a scoping report for the Glen Canyon Dam Long-Term Experimental Plan final environmental impact statement in March 2007. In the meantime, a transitional annual work plan was developed for the Adaptive Management Program for federal fiscal years 2007 and 2008 while the final environmental impact statement, the Long-Term Experimental Plan, and a recovery program for humpback chub in the Grand Canyon are all being developed. The final environmental impact statement is scheduled to be completed in December 2008. The Grand Canyon Monitoring and Research Center continues development of a long-term work plan of monitoring and research in consultation with the program. Experimental research will be coordinated with ongoing monitoring and research projects to maximize cost effectiveness. The monitoring and research plan will be consistent with and implement the experimental actions described in the final Long-Term Experimental Plan. The research center will provide scientific information to support the environmental compliance process, as requested and feasible.

The U.S. Fish and Wildlife Service in fiscal year 2003 issued a recovery plan for endangered humpback chub that requires the development and maintenance of the current population within the Grand Canyon as well as other populations outside the Grand Canyon vicinity. Flow regimes and non-flow measures are being evaluated for conserving populations of humpback chub in the Colorado River and tributaries within the Grand Canyon. Trout predation on humpback chub is believed to be high, and mechanical removal of trout at the confluence of the Colorado and Little Colorado rivers has been shown to be effective in reducing the number of non-native fish and possibly minimizing trout predation. Also, a fish barrier and trout removal project was implemented on Bright Angel Creek. Mechanical trout removal efforts will continue during fiscal year 2007-





2008 and high-fluctuating-flow releases from Glen Canyon Dam also may be continued to disadvantage trout reproduction. In addition, the operation of temperature control devices at Glen Canyon Dam, if installed, may improve water quality conditions in the mainstem of the Colorado River that promote natural reproduction and recruitment of humpback chub.

### **Colorado River Salinity**

Mexico began protesting the salinity of the Colorado River in 1961 and Congress enacted the Colorado River Basin Salinity Control Act in 1974 authorizing the construction, operation and maintenance of certain works in the Colorado River Basin to control the salinity of water delivered to users in the United States and Mexico. A desalting plant was built in the 1980s and began operation in 1992, but operations were suspended in early 1993 because of the operating costs. New Mexico has agreed the plant should be maintained on standby status to enable restart within a reasonable time. The Bureau of Reclamation consults with the seven Colorado River Basin states at least annually on the status of the plant and the need to operate during the year.

The Colorado River Basin Salinity Control Forum was created by the basin states in response to a proposal by the Environmental Protection Agency and promulgation of a regulation (40 CFR 120) on basin-wide salinity control policy that required the states to adopt water quality standards for salinity. Forum activities include reviewing program progress, recommending and sharing the costs of salinity control projects, preparing and recommending the triennial review of water quality standards within the basin, and developing future program objectives. The salinity control program is a cooperative watershed effort of federal agencies and the basin states, and the State Engineer and Interstate Stream Commission staff represents the State of New Mexico in the activities of the forum and its technical work group. Current studies show that the numeric criteria of the water quality standards for salinity could be exceeded and damages could escalate without future controls and continued implementation of salinity control projects. An updated economic damage model is used to estimate current and future damages from salinity, most of which occur in the Lower Colorado River Basin. Presently, there is concern that salinity levels in the Colorado River could rise further if the basin-wide drought continues and storage in mainstem reservoirs continues to be low. The purpose of the salinity control program is to meet the objective of maintaining salinity concentrations at or below the numeric criteria established on the lower mainstem of the Colorado River while allowing the basin states to continue to develop their compact-apportioned water supplies from the Colorado River Basin.

The forum at its October 26, 2005, meeting adopted the 2005 Review, Water Quality Standards for Salinity, Colorado River System. The 2005 review was adopted into the State of New Mexico's water quality standards by the New Mexico Water Quality Control Commission and subsequently was approved by the Environmental Protection Agency.

The Navajo Nation continues to study salinity loadings in the Hogback area near Shiprock, N.M., in anticipation of developing a salinity control project. Studies throughout the Colorado River Basin will continue to identify the cost-effective areas for implementation of salinity control projects.

### **Endangered Species Act Issues**

*Colorado River Delta.* Minute 306 to the 1944 Treaty between the United States and Mexico for the Utilization of the Waters of the Colorado and Tijuana Rivers and the Rio Grande establishes a conceptual framework for joint studies to prepare recommendations concerning the riparian and estuary ecology of the Limitrophe Section of the Colorado River and its associated delta. The seven Colorado River Basin states have stated their opposition to any proposed restoration measures that would involve delivery of Colorado River water from the United States to Mexico in excess of the current treaty delivery obligation. The basin states have appointed representatives to a technical committee to maintain contacts, gather information as available, and report to the basin state representatives on the delta issues being considered. The technical committee made no report to the basin state representatives during fiscal year 2007.

*San Juan River Basin Recovery Implementation Program.* The San Juan River Basin Re-

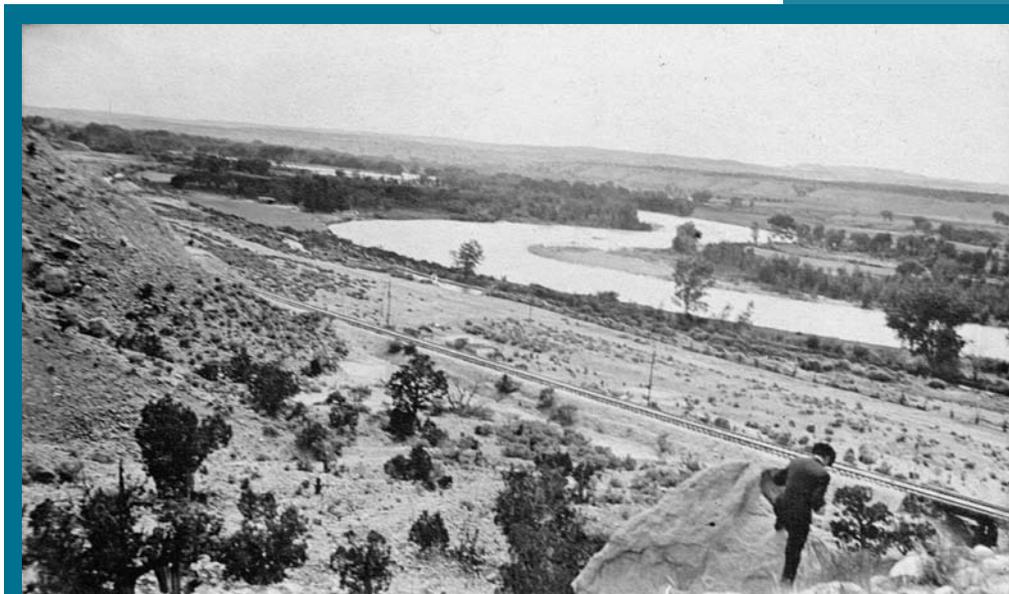
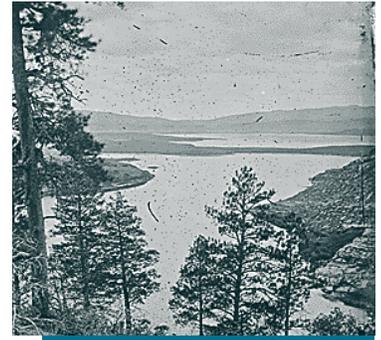
covery Implementation Program is a multi-state, cross-agency effort to conserve populations of Colorado pikeminnow and razorback sucker in the San Juan River Basin while water development in the basin proceeds in compliance with interstate compacts and other applicable laws. The reach of the San Juan River from Farmington to Lake Powell, Utah, has been designated critical habitat for the Colorado pikeminnow, and the reach of the river from the Hogback to Lake Powell has been designated critical habitat for the razorback sucker. Both fish species are listed as endangered under the Endangered Species Act. The U.S. Fish and Wildlife Service in fiscal year 2003 issued recovery plans and goals for the Colorado pikeminnow and razorback sucker. Under the plans, development and maintenance of the San Juan River populations to specific population goals are integral to achieving recovery and delisting of both species. In September 2006, the Recovery Implementation Program's Coordination Committee completed an update to the program document, which provides guidelines and procedures for the responsibilities and functioning of the program and its technical committees and also outlines responsibilities of the U.S. Fish and Wildlife Service to the program. Interstate Stream Commission staff represent the State of New Mexico on the Coordination Committee, which directs program activities and approves budgets for the program's technical committees, and on the Hydrology Committee, which provides the program with information relating to river and reservoir operations in the basin. Game and Fish Department staff represents New Mexico on the Biology Committee, which provides the program with information relating to the fish populations in the San Juan River.

In fiscal year 2007, the program's Biology Committee (1) conducted research, (2) collected habitat and fish population monitoring data, (3) continued review of monitoring activities and endangered fish augmentation efforts in the San Juan River, and (4) continued review of the program's flow recommendations for the San Juan River in light of new fish and habitat monitoring data. The Biology Committee also continued to evaluate capital works needed

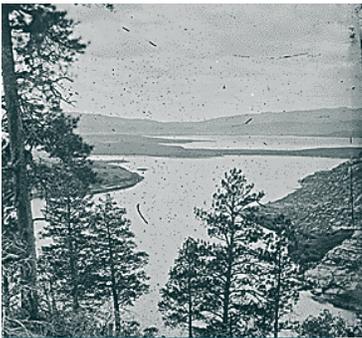
to recover the populations of endangered fish species in the San Juan River. Due to operational problems at some of the razorback sucker rearing ponds on the Navajo Indian Irrigation Project lands, fish rearing capacity within the basin was reduced in fiscal year 2007. The program will replace the loss of rearing capacity in the basin by contracting for increased razorback sucker fish production and rearing at the Uvalde National Fish Hatchery. The selective fish passage

at the Public Service Company of New Mexico's San Juan Generating Station diversion weir continued to be operated during fiscal year 2007 to allow only native fish to move upstream. Native fish, including endangered species, used the fish passage in fiscal year 2007, and non-native fish captured at the fish passage were removed from the river.

In 2002, a non-selective fish passage was completed at the Hogback Irrigation Project diversion structure and the Cudei Irrigation Project diversion structure was removed from the river. Cudei project lands now receive irrigation water from the Hogback canal. The Biology Committee in 2007 determined that only minor fish passage enhancements may



1912 – A man stands over a hill above the Denver & Rio Grande Railroad tracks at Rosing by the Animas River. (Western History/Genealogy Department, Denver Public Library)



be needed at the Arizona Public Service Company's Four Corners Power Plant diversion dam and recommended that the program evaluate a low-tech option for improving fish passage at the Fruitland Irrigation Project diversion dam. The Biology Committee also is looking into the option of installing a weir overflow structure at the head of the Hogback Canal to reduce potential endangered fish entrainment into the canal as an alternative to a more costly, and perhaps less efficient, option of constructing and operating a fish screen at the diversion. Alternative designs are being considered. Funding for these capital recovery measures was authorized by Public Law 106-392, as amended. The Biology Committee during fiscal year 2007 also evaluated whether temperature suppression in the San Juan River caused by Navajo Reservoir operations was a limiting factor to reproduction and rearing of endangered fish in the river. The Biology Committee determined that installation of a temperature-control device on the outlet works of Navajo Dam to control water temperatures in the San Juan River below the dam for endangered fish is not warranted. An effort is underway to update the program's long-range implementation plan to guide future recovery efforts.

During fiscal year 2007, the Recovery Implementation Program's Hydrology Committee continued work on the development or refinement of a hydrology model for the San Juan River Basin. A hydrology model for the basin has been, and may continue to be, used to assess the availability of water supply for meeting endangered fish flow and habitat needs and water development needs. An updated model revision is expected to be completed in fiscal year 2008. New Mexico has raised several concerns about the use of the San Juan River Basin hydrology model in the Recovery Implementation Program or in federal environmental and endangered species compliance. New Mexico's position is that the data, methodologies and assumptions used in the current model version are not fully accurate; do not under any circumstances constitute evidence of actual water use, water rights or water availability under compact apportionments; and should not be construed as binding on any party. Furthermore, use of the model, model data, methodologies and assumptions does not change the responsibilities of the respective states to maintain records of water rights and water use. It is anticipated that a revised version of the model will be used to assist the Biology Committee in its evaluation of possible revisions to the program's flow recommendations for the San Juan River.

## **WATER PLANNING AND DEVELOPMENT**

### **Upper Colorado River Basin Development**

Much of the water use apportioned to New Mexico by the Upper Colorado River Basin Compact is put to use through projects in the San Juan River basin developed and operated by the Bureau of Reclamation. These projects include Navajo Dam and Reservoir, the Hammond Irrigation Project and the San Juan-Chama Project. In addition to operation of these projects, the Bureau of Reclamation during fiscal year 2007 continued its construction work on Ridges Basin Dam and the Durango pumping plant for the Animas-La Plata Project, continued to add irrigation facilities to expand the irrigation service area of the Navajo Indian Irrigation Project in accordance with the project authorization, and continued planning and environmental compliance activities for the proposed Navajo-Gallup Water Supply Project.

*Navajo Dam and Reservoir.* Navajo Dam and Reservoir provides river regulation pursuant to the Colorado River Storage Project Act, and provides storage for the Navajo Indian Irrigation Project, the Hammond Project, and municipal and industrial uses. Navajo Dam and Reservoir since 1991 also has been operated to produce downstream flow hydrographs that mimic natural spring snowmelt runoff patterns. This operation is believed to benefit endangered fish populations in the San Juan River. The San Juan River Basin Recovery Implementation Program has recommended river flows and reservoir operating procedures that address the needs of both the species and water users. Operation of Navajo Reservoir to meet the habitat and recovery needs of populations of endangered fish species in the San Juan River provides Endangered Species Act compliance for federal water operations in the San Juan River Basin, including for the San Juan-Chama Project, the Animas-La Plata

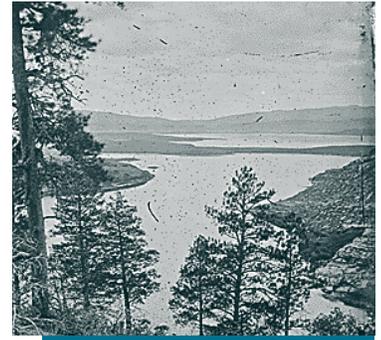
Project, the Navajo Indian Irrigation Project, the Hammond Irrigation Project, and the proposed Navajo-Gallup Water Supply Project.

In April 2006, the Bureau of Reclamation completed a final environmental impact statement on Navajo Reservoir Operations that includes as the preferred alternative operating Navajo Dam to meet the Recovery Implementation Program's recommendations for flows to provide for the habitat needs of endangered fish populations in the San Juan River. The preferred alternative includes also incorporating adaptive management into Navajo Reservoir operating decisions. Under the preferred alternative, releases from Navajo Reservoir would range from a minimum of 250 cubic feet per second to a maximum of 5,000 cubic feet per second as necessary to meet recommended spring peak flow statistics and target base flows specified by the flow recommendations, or reasonable alternatives, to benefit the endangered fish species in the San Juan River. The secretary of the Interior in July 2006 issued a record of decision on the Final environmental impact statement that selected the preferred alternative for Navajo Reservoir operations. Implementation of the record of decision began with the development and implementation of the annual operating plan for Navajo Reservoir for 2007.

*Navajo Indian Irrigation Project.* Construction of facilities to deliver water to lands under Block 9 of the project continued during fiscal year 2007. The Navajo Agricultural Products Industry, formed by resolution of the Navajo Tribal Council, is responsible for the operation and management of the project's irrigation works and for the farming and marketing activities of the project.

*Navajo-Gallup Water Supply Project.* The proposed Navajo-Gallup Water Supply Project would deliver water from Navajo Reservoir to Gallup and communities on Navajo Nation lands in both New Mexico and Arizona for municipal and domestic water uses. The project is a key component of the San Juan River Basin in New Mexico Navajo Nation Water Rights Settlement Agreement signed by the State of New Mexico and the Navajo Nation on April 19, 2005. The Bureau of Reclamation completed a biological assessment for the project in August 2005, and the U.S. Fish and Wildlife Service in May 2006 completed a draft biological opinion for the project. The Upper Colorado River Commission on June 5, 2006, adopted a resolution supporting the findings of the Bureau of Reclamation's May 2006 draft hydrologic determination, the authorization of the Navajo-Gallup Water Supply Project, and the congressional approval of the settlement agreement and a Navajo Reservoir water supply contract for the Navajo Nation's uses under the project. The Bureau of Reclamation finalized the hydrologic determination in April 2007, and the secretary of the Interior signed it on May 23, 2007. The hydrologic determination provides the secretary of the Interior's determination that sufficient water is reasonably likely to be available from New Mexico's allocation under Articles III and XIV of the Upper Colorado River Basin Compact to serve the Navajo Nation's uses under the Navajo-Gallup Project in addition to the other existing Navajo Reservoir and San Juan-Chama Project water and repayment contracts. This determination is required by Section 11 of Public Law 87-483 for Congress to approve the proposed contract to cover the Navajo Nation's water uses under the project. The Interior secretary's submittal of the hydrologic determination to Congress is pending the Interior Department and the Navajo Nation negotiating final terms of the Navajo Nation's proposed Navajo Reservoir water supply contract.

The Bureau of Reclamation during fiscal year 2007 continued its feasibility planning for the project. The final draft biological opinion was released in January 2007 after Interior's solicitor reviewed it. The biological assessment and the draft biological opinion indicate that water is likely to be physically available from Navajo Reservoir for the Navajo Nation's uses under both the Navajo Indian Irrigation Project and the Navajo-Gallup Water Supply Project while operating the reservoir also to meet the San Juan River Basin Recovery Implementation Program's flow recommendations or a reasonable alternative. The biological opinion would provide Endangered Species Act Section 7 compliance for the Navajo-Gallup Water Supply Project. In March 2007, the Bureau of Reclamation released for public review a planning report and draft final environmental impact statement





for the project. The comment period on the draft statement closed June 28, 2007.

New Mexico's congressional delegation in December 2006 introduced legislation in both houses of Congress to authorize the Navajo-Gallup Water Supply Project and to approve the San Juan River Basin in New Mexico Navajo Nation Water Rights Settlement Agreement. The legislation was reintroduced to Congress on April 19, 2007, as S. 1171 and H.R. 1970. The Senate's Energy and Natural Resources Committee held a hearing on S. 1171 on June 27, 2007. The secretary of the Interstate Stream Commission presented a statement to the committee in support of the legislation. The legislative effort to authorize the project will continue in fiscal year 2008.

Interstate Stream Commission staff participates with the federal agencies, the Navajo Nation, the City of Gallup and others on a steering committee that provides oversight to the planning process for the Navajo-Gallup Water Supply Project. During fiscal year 2008, it is anticipated that staff will continue to work with the New Mexico Congressional delegation, the Department of the Interior, and others to resolve issues and move the legislation forward. The water supply for the Arizona portion of the project remains unidentified, and the Commission believes that the secretary of the Interior will need to determine that sufficient water is reasonably likely to be available within Arizona's compact allocations to supply the project uses in that state.

*San Juan River Water Administration.* The State Engineer anticipates administering diversions in the San Juan River Basin in accordance with water rights priorities and available flows so as to protect rights and meet New Mexico's commitment under the San Juan River Basin Recovery Implementation Program to protect releases from Navajo

Dam made to benefit populations of endangered fish species in the San Juan River. The Office of the State Engineer in fiscal year 2005 began the internal process of developing basin-specific rules and regulations for San Juan River Basin water rights administration in accordance with the rules and regulations approved by the State Engineer in December 2004 for the implementation statewide of active water resource management. The rules and regulations require the State Engineer to promulgate additional rules and regulations for administration of water rights specifically in the San Juan River Basin and to use public processes for developing a water master manual and for developing a priority list determination of rights in the basin in New Mexico.

In the meantime, as a consequence of low storage conditions in Navajo Reservoir following the extreme drought of 2002, major water users on the San Juan River in 2003 developed and endorsed recommendations and principles for the operation of Navajo Dam and the administration of diversions from the river for the calendar year. Every year since, including for calendar year 2007, the water users have endorsed similar recommendations for the operation of Navajo Dam and the administration of diversions from the river. The latest agreement on such recommendations that was entered into for 2007 is a two-year agreement that will remain in effect for calendar years 2007 and

2008. The water users making the recommendations include the Bloomfield Irrigation District, City of Farmington, Hammond Conservancy District, Farmers Mutual Ditch, Jewett Valley Ditch, Public Service Company of New Mexico, Arizona Public Service Company, BHP Billiton, Jicarilla Apache Nation and Navajo Nation. The Navajo Nation approved the recommendations and principles on behalf of the Navajo Indian Irrigation Project and the Fruitland and Hogback irrigation projects. The New Mexico State Engineer and the Bureau of Reclamation have accepted the recommendations and principles, and they assist in implementing them. Under the recommendations and principles, the water users share in the water supply available to meet the water use needs from the San



1873 – Blackwater Canyon near Zuni Pueblo.  
(Geographical Explorations and Surveys West of  
the 100th Meridian, National Archives)

Juan River. No shortages will occur in 2007 under the cooperative recommendations as the runoff and Navajo Reservoir storage will be shared to meet all demands on the river during the year, and it is anticipated that storage conditions will continue to be favorable through 2008.

The Commission staff assists the State Engineer in water administration in the San Juan River Basin by facilitating these water sharing agreements, assisting in the monitoring of diversions and consumptive uses in the basin in New Mexico, and participating in the development of rules and regulations for water rights administration in the basin. The Commission, on behalf of the State of New Mexico, also facilitated and approved the April 2005 San Juan River Basin in New Mexico Navajo Nation Water Rights Settlement Agreement to resolve the water rights claims of the Navajo Nation to waters of the basin in New Mexico. The Settlement Agreement furthers the San Juan River Adjudication, and Commission staff during fiscal year 2008 will continue to work toward obtaining Congressional approval of the Settlement Agreement.

### **Lower Colorado River Basin Development**

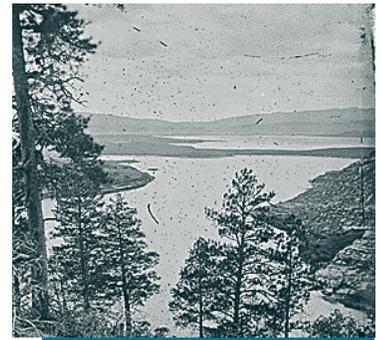
*New Mexico's Gila River Allocation.* The Colorado River Basin Projects Act in 1968 authorized the Central Arizona Project and provided that the secretary of the Interior will contract with water users in New Mexico for water from the Gila River, its tributaries, and underground sources in amounts that would permit an annual average of 18,000 acre-feet of consumptive use in New Mexico in addition to the consumptive use provided by the U.S. Supreme Court's 1964 decree in *Arizona v. California*. In 2004, after four years of negotiations between the states of New Mexico and Arizona and Arizona water users, the Arizona Water Settlements Act was signed into law and provided New Mexico up to \$128 million in non-reimbursable funding to develop the additional Gila River system water.

The 2004 Arizona Water Settlements Act included provisions to permit New Mexico to develop 140,000 acre-feet of additional depletions from the Gila River Basin in New Mexico during any period of 10 consecutive years, provided that specific flow bypass requirements and other terms are met. As long as these terms of diversion are met, senior downstream users are bound to not protest any additional diversions by New Mexico water users made for the purpose of developing up to 14,000 acre-feet per year, on average, of depletions over and above the consumptive use provided by the 1964 decree in *Arizona v. California*. Objection by senior downstream users had been a major obstacle to development of the new consumptive use authorized by the 1968 Colorado River Basin Projects Act.

To effect the additional depletions in New Mexico, the secretary of the Interior has to enter into a contract with New Mexico water users to exchange Central Arizona Project water for the Gila River water that downstream Arizona water users will forbear calling. The Interstate Stream Commission must approve any contract between the secretary and New Mexico water users.

In addition, the Upper Valley Defendant Agreement approved in Title II of the 2004 Arizona Water Settlements Act provides for settlement of a suit over groundwater pumping brought by the Gila River Indian Community. New Mexico farmers in the Virden Valley are defendants in the suit, and the legislation allows Virden Valley farmers to conjunctively divert up to six acre-feet per acre from ground and surface water, regardless of priority. In return, Virden Valley farmers in New Mexico will be required to retire up to 240 acres of irrigated lands, 160 acres of which will be purchased by the Department of the Interior from willing sellers.

The Commission in fiscal year 2006 initiated a comprehensive planning process that will address, among other things, endangered species and ecological issues that may arise if additional water is developed in the Gila River Basin in New Mexico as authorized by the Arizona Water Settlements Act. The process is a partnership between the Commission, the New Mexico Office of the Governor, the US Fish and Wildlife Service, the Bureau of Reclamation and an organization of local governments referred to as the Southwest Water Planning Group. Under a policy adopted by the Commission, the planning process will use the best available science and include a full public involvement component.





## Pecos River Basin Activity

### INTERSTATE STREAM ADMINISTRATION

#### Compact Deliveries to Texas

The federal Pecos River master found that, for calendar year 2006, New Mexico was able to meet its compact delivery obligation to Texas and to add 26,100 acre-feet of credit. This increased New Mexico's accumulated delivery credit from 41,200 to 67,300. In 1988, the U.S. Supreme Court found in *Texas v. New Mexico* that New Mexico had under-delivered to Texas, on average, 10,000 acre-feet per year during the period from 1950 to 1983. New Mexico was allowed to clear its past debt with a payment of \$14 million to Texas. However, the court mandated that New Mexico deliver its future water obligations to Texas on an annual basis without ever incurring a cumulative shortfall. Delivery overages, or credits, are permitted to accumulate with no limits imposed. The court-appointed river master determines New Mexico's compliance with delivery obligations to Texas on the Pecos River each year.

#### Water Resource Conservation Project – Pecos River Portion

The New Mexico Legislature, in response to the U.S. Supreme Court order, directed the Commission to purchase and retire adequate water rights on the Pecos River to meet compact obligations and to avoid catastrophic economic consequences that may result from net delivery shortfalls to Texas. Approximately \$33.8 million was spent for acquisition of water rights and water leases between 1991 and 2004. The breakdown is \$19.4 million on the purchase and retirement of 27,300 acre-feet of water rights and \$14.4 million on leases of water to meet short-term delivery needs. Commission staff estimates that the purchase and retirement of water rights has increased stateline flows by about 8,800 acre-feet per year. The water rights acquisition project has allowed New Mexico to remain in compliance with its Pecos River Compact delivery obligations to date.

#### Pecos Settlement

Anticipating a delivery shortfall in 2001, the Commission created an ad hoc committee of water users, now called the Lower Pecos River Basin Committee, made up of representatives from five irrigation entities, six municipalities, four counties, the Lower Pecos River Basin Regional Planning Committee, four industries, and the Bureau of Reclamation. Asked to craft a long-term solution to the Pecos River Compact compliance problem, the committee developed a Consensus Plan that included the purchase and retirement of land and appurtenant water rights in the Lower Pecos River Basin, long-term and short-term augmentation pumping from the Roswell Artesian Aquifer to the Pecos River, and short-term leasing of water and water salvage projects. The Legislature authorized and partially funded the committee's plan and the committee is serving in an advisory capacity while the long-term solution is implemented.



Left: 1939 – Civilian Conservation Corp enrollments line a canal as part of the Carlsbad Project. (Civilian Conservation Corps Photographs and Related Correspondence, National Archives.) Above: Pecos River in southern New Mexico today.

Important caveats were placed on the 2003 appropriation by the Legislature. One requirement is that the Commission had to complete additional agreements to settle Carlsbad Irrigation District water rights adjudication issues. In March 2003, the Carlsbad Irrigation District, Pecos Valley Artesian Conservancy District, the Bureau of Reclamation and the Commission reached a settlement agreement adjudicating the irrigation district's water rights and implementing the Consensus Plan. Commission staff is working to implement the various elements of the Consensus Plan, including the purchase of 18,000 acres of irrigated farmland in the Pecos Valley, the development of well fields to augment the flows of the Pecos River along with related contracts enabling Carlsbad Project water to be released for deliveries to the stateline with completion of any necessary environmental compliance, and completion of an environmental impact statement on the Bureau of Reclamation operations and Endangered Species Act compliance.

In 2006-2007, Commission staff continued to negotiate and acquire appurtenant land and water rights. As of June 30, 2006, the Commission has acquired a total of 8,100 acres with appurtenant water rights in the basin: 4,698 acres in the Pecos Valley Artesian Conservancy District and 3,410 acres in the Carlsbad Irrigation District (CID).

### Land Management

The Consensus Plan and authorizing state statute requires that when the Commission purchases water rights, it must also purchase the land associated with those rights. Given this requirement, the Commission as of July 2006 owns a little more than 8,100 acres of land with appurtenant water rights attached to them. Most of these properties are previously irrigated croplands and have a high susceptibility to weeds and erosion. As a mechanism to address these concerns, Commission staff continues to work with agricultural experts to create individual land management plans on all its properties. These plans not only give a snapshot of the current condition of the properties but also recommend future management considerations that will assist in bringing the lands back into a native rangeland condition.

### Augmentation Pumping

Augmentation pumping sites are being developed in three locations. The primary augmentation well field is in the Seven Rivers area. This well field has 10 artesian wells that were drilled and tested during the period of March 2005 to June 2006. A pipeline has been designed and is being constructed to deliver water from the Seven Rivers well field to the Pecos River. The anticipated completion date of this project is January 2008. There are currently two complementary augmentation sites being developed. In December 2004, a pipeline connecting a lateral of the Hagerman Canal to the Rio Felix was completed. The pipeline has the ability to deliver Commission-owned and -leased water to the Pecos River in the winter months. A second pipeline that connects five wells in the Lake Arthur Area to the Pecos River was completed in December 2005. The Lake Arthur pipeline was used to deliver Commission-owned water to the Pecos River in the winter of 2005-2006.

### FEDERAL MANAGEMENT ISSUES

During the 2005-2006-fiscal year, the Commission and the Bureau of Reclamation, completed two National Environmental Policy Act projects on the Pecos River as joint leads: the Carlsbad Project Water Operations and Water Supply Conservation Final Environmental Impact Statement (The record of decision was signed July 19, 2006.) and the Long-term Miscellaneous Purposes Contract Environmental Impact Statement (The record of decision was signed August 29, 2006.). The operations environmental statement addresses modified dam operations needed for Endangered Species Act compliance and associated water supply impacts while the miscellaneous purposes contract helps to implement the Pecos River Settlement Agreement by allowing the Commission to use water for purposes other than irrigation, which in this case is delivery to Texas for Pecos River Compact compliance



### Progress on Pecos Land and Water Purchases

|                                |       |
|--------------------------------|-------|
| Target: 12,000 Acres           |       |
| Acreage To Be Negotiated       | 1,881 |
| Acreage Under Negotiation      | 407   |
| Acreage Negotiate and Executed | 1,604 |
| Acreage Purchased              | 8,108 |



purposes. The final environmental impact statement documents are accessible through the Bureau of Reclamation website: <http://www.usbr.gov/uc/albuq/envdocs/>

The Bureau of Reclamation initiated four environmental assessments tiered off of the completed operations environmental impact statement work. While the Commission is not considered a joint lead on the preparation of these documents, it is very involved with the analysis and development of the drafts.

The Seven Rivers pipeline environmental assessment evaluated the delivery of water from the Seven Rivers augmentation well field to Brantley Reservoir according to the terms of the Pecos River Settlement Agreement for use as Carlsbad Project water or compact compliance water. The augmentation well field pipeline addresses the augmentation of the CID water supply as partial fulfillment of the settlement agreement and long-term compliance with the Pecos River Compact.

## Seven Rivers Pipeline

Another milestone was reached in the implementation of the Pecos River Settlement Agreement this fiscal year when the Interstate Stream Commission broke ground for the Seven Rivers Pipeline Project near Carlsbad, New Mexico.

The pipeline, expected to be completed by early 2008, stretches from the Seven Rivers area near Carlsbad to Brantley Lake on the Pecos River. It is 12 inches to 36 inches wide and has the capacity to deliver 20,000 acre-feet of water per year to the river.

When implemented, the settlement will put an end to 50 years of litigation and will result in the adjudication of the Carlsbad Irrigation District's water rights. Additionally, the settlement will help the state comply with obligations under the Pecos River Compact as decreed by the U.S. Supreme Court in 1988.

Augmentation pumping sites are being developed at three locations, including the primary site in the Seven Rivers area. This well field has 10 artesian wells drilled and tested between March 2005 and June 2006. These wells and an additional six private wells will be connected by the series of pipelines.

The Bureau of Reclamation has contributed \$1 million to the Seven Rivers Pipeline Project through the Water 2025 Program for work related to water efficiency and supply supplementation in compliance with the Settlement Agreement.

The Water 2025 program is aimed at preventing crises and conflict in the West by encouraging voluntary water banks, promoting the use of new technology for water conservation and efficiency and increasing cooperation and collaboration among federal, state, tribal and private organizations. Reclamation is also collaborating with Interstate Stream Commission through a license agreement allowing the project to cross Reclamation land en route to Brantley Reservoir.

Another environmental assessment, the Long-Term Lease of Groundwater Rights, Pecos River near Fort Sumner, assessed potential environmental impact for a 25-year contract to lease water from the Commission that can be conveyed by the Vaughan pipeline.

Work continues on the Pecos River supplemental water environmental assessment to comply with the U.S. Fish and Wildlife Service's 2006-2016 biological opinion on the operations environmental impact statement. The 2006-2016 biological opinion and record of decision from the operations environmental statement commit the Bureau of Reclamation to operate the Carlsbad Project with a target flow of 35 cubic feet per second at the Taiban Gauge and to keep the river continuous in order to conserve the federally protected Pecos bluntnose shiner. The project will also meet the contracted irrigation needs of the Carlsbad Project and avoid hindering New Mexico delivery requirements to Texas.

The fourth tiered environmental assessment is for habitat restoration activities at the Bitter Lake National Wildlife Refuge. Scoping has begun for the Bureau of Reclamation's Pecos River habitat restoration environmental assessment. This project will aid in the implementation of the 2006-2016

biological opinion by restoring more than one mile of the Pecos River within the refuge. The Commission supports river restoration activities and is assisting with evaluating the potential for new depletions to water resource supplies in the basin resulting from these activities.

### Endangered Species

Responding to a finding by the U.S. Fish and Wildlife Service in 1991 that the Bureau of Reclamation operations on the Pecos River were harming the threatened Pecos bluntnose shiner, the Bureau of Reclamation and the wildlife service, the New Mexico Department of Game and Fish, and the CID agreed to work together to address threats to the survival

of the fish. The Commission joined the effort in 1997. Modifications to historic dam operations to conserve the federally threatened shiner resulted in additional depletions of the fully appropriated Pecos River waters.

In fiscal years 1999 and 2000, the Bureau of Reclamation signed agreements with the Commission to make its best effort to fully offset any new depletion with other valid New Mexico water rights to protect New Mexico's ability to meet its Pecos River Compact obligations. If the Bureau of Reclamation's best efforts were insufficient to offset the depletion, the Bureau of Reclamation agreed to lease any water needed for the offset from the Commission's Water Resource Conservation Project. The federal agency continues to fully offset new depletions resulting from activities related to the conservation of endangered species in the Pecos River.

The Commission has been working closely with the Bureau of Reclamation to develop a methodology to annually account for depletions and offsets made to the river system related to the Bureau of Reclamation's modified dam operations for Endangered Species Act compliance purposes. An agreement to use this method and offset depletions is being negotiated concurrently.

Four invertebrate species (Roswell springsnail, Koster's tryonia, Pecos assiminea, and Noel's amphipod) in the Bitter Lake National Wildlife Refuge area in New Mexico and Pecos and Reeves counties in Texas were proposed for listing as endangered with critical habitat under the Endangered Species Act in February 2002. The Center for Biological Diversity and Forest Guardians sued the wildlife service in April 2004 to complete the listing process for these species.

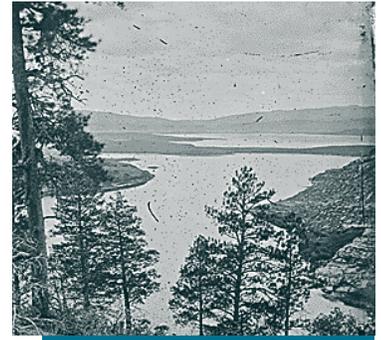
In 2002, the Commission initiated research to increase the knowledge base of information for the federally protected shiner. Two important studies were completed in 2004 and made available to several federal and state agencies. Those studies are being submitted to a scientific journal for publication. One study focused on the relationship between river discharge, habitat availability, and habitat use. Results of the study indicated that the habitat types most consistently used by the shiner were available in the same quantities across the full range of flows sampled, indicating that habitat is available to the shiner even at low flows. These results assist in selecting dam operations being considered as part of the environmental impact statement.

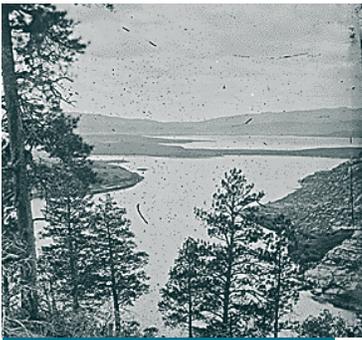
The other study focused on the effect that irrigation block releases have on shiner eggs. By releasing artificial eggs with similar mass and buoyancy to natural eggs after a block release was initiated and collecting these eggs at various distances downstream, the amount of eggs retained in various river reaches could be calculated. The results of the study suggest that most of the eggs produced during increased flows associated with block releases remain close to their population center, and that block releases are not the primary threat to the shiner.

In 2004, the state Game and Fish Department produced a draft recovery plan for the four invertebrates. The state plan was reviewed by Commission staff and determined to have few effects on water operations or supplies within the Pecos Basin. The wildlife service recently decided to adapt the state plan for a federal recovery plan to be drafted in 2007.

Commission staff and contractors continue to work for greater scientific understanding of the Pecos River fish community. By performing research and publishing peer-reviewed work, important information is generated for the benefit of the public. A study of different habitats within the river completed in 2005 was reviewed and published in 2007 by the North American Journal of Fisheries Management under the title, Relationship of Fish Meso-habitat to Flow in a Sand-Bed Southwestern River. In 2006, a pilot study evaluating the suitability of employing the depletion method for estimating fish populations on the Pecos River was completed. This method yields population estimates with 95 percent confidence intervals and is commonly used in other biological applications.

The 2003-2006 biological opinion for Carlsbad Project reservoir operations expired on February 28, 2006. On May 18, 2006, the wildlife service issued its final biological opinion on the operations environmental statement. The final biological opinion evaluated



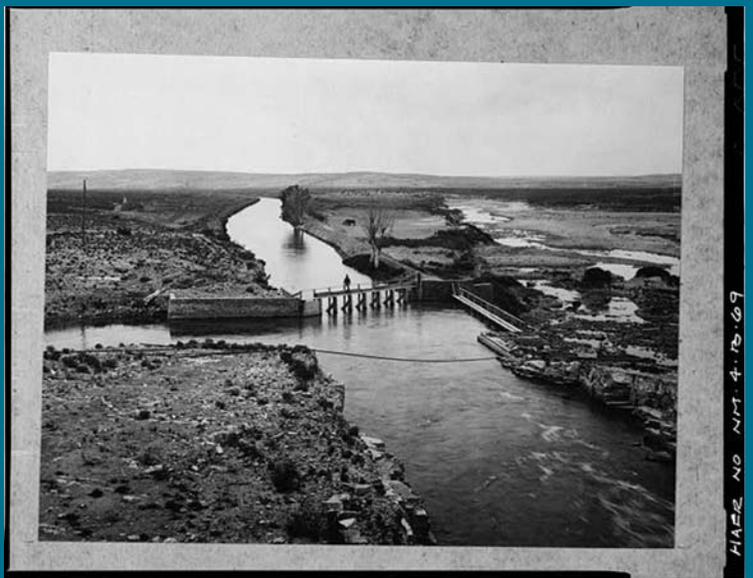


the effects of the project on the threatened shiner and the endangered interior least tern in accordance with the Endangered Species Act. The biological opinion is valid for 10 years, beginning August 19, 2006.

The biological opinion requires a target flow of 35 cubic feet per second at the Taiban Gauge and a continuous river within the Acme reach and monitoring of the river whenever the flow falls below 10 cubic feet per second and periodically for the next three years. The Bureau of Reclamation is also expected to participate in two river restoration projects on two to three river miles between wildlife refuge and Hagerman by 2014 to support the life cycle of the shiner. For the interior least tern, the Bureau of Reclamation must increase the available habitat around Brantley Reservoir and monitor the population.

The wildlife service began a species status review for the shiner on April 28, 2006. The Commission responded to the wildlife service's request for additional information and will review the document when it is made available.

The state closed on its first acquisition of water rights for the strategic water reserve in September 2006. These water rights will primarily benefit Endangered Species Act compliance purposes; however, they also count toward the Consensus Plan. A pipeline was constructed to convey water to the river to help avoid river drying. The Bureau of Reclamation will lease this water from the state as a major part of their Endangered Species Act compliance activities. Through this partnership, the water right owners and the environment will be protected and the State will be able to recover the cost of its investment. Negotiations for the state's second acquisition of water rights for the Strategic Water Reserve were initiated in fiscal year 2007



1908 – The main Avalon Canal viewed from the headgates of the Avalon Dam. (Library of Congress, Prints and Photograph Division)

compliance purposes; however, they also count toward the Consensus Plan. A pipeline was constructed to convey water to the river to help avoid river drying. The Bureau of Reclamation will lease this water from the state as a major part of their Endangered Species Act compliance activities. Through this partnership, the water right owners and the environment will be protected and the State will be able to recover the cost of its investment. Negotiations for the state's second acquisition of water rights for the Strategic Water Reserve were initiated in fiscal year 2007

## WATER PLANNING AND DEVELOPMENT

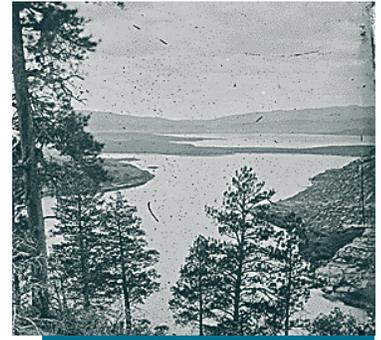
*Rio Hondo Channel Capacity Improvement.* A channel capacity analysis performed by the U.S. Army Corps of Engineers concluded the channel could not maintain adequate flow throughout its length. Work to resolve remaining issues among the affected landowners, the City of Roswell, Chaves County, the Chaves County Flood Commission and the corps is ongoing. A joint powers agreement among the Commission, Chaves County, Chaves County Flood Commission and the City of Roswell to enumerate the responsibilities of those parties in the channel capacity augmentation project was signed in October 2002. The City of Roswell commissioned an engineering firm to generate a construction-level design for the channel augmentation. The design was completed in 2003. Natural and cultural resource surveys were conducted in the areas affected by the proposed augmentation. Easements for the project are pending.

*Reclamation's Water 2025 Challenge Grant.* In fiscal year 2006, the Commission received nearly \$60,000 through the Bureau of Reclamation's Water 2025 Challenge Grant Program. The grant program encourages and offers matching funds for projects intended to reduce potential conflict over scarce western water resources. Commission staff proposed to improve stream flow measurement accuracy, especially at high flows, at the Pecos River at Red Bluff gauge by installing a state-of-the-art, bank-operated cableway capable of deploying new acoustic Doppler current profiler technology. Accurate stream flow measurements at the Red Bluff location are critical because the site is an index gauge used to account for New Mexico's delivery of water to Texas under the Pecos River Compact. Installation of the new bank-operated cableway was completed in June 2006. During fiscal year 2007, the

Commission acquired floatation, communication, and GPS equipment needed to deploy the acoustic Doppler current profiler.

*Phreatophyte Control.* Congress has authorized the Bureau of Reclamation to carry out a program of eradication and management of phreatophytes – high-water-use, non-native plants – in the flood plain of the Pecos River extending from Santa Rosa, N.M., to Girvin, Texas. The states of New Mexico and Texas are required to acquire such lands, easements, rights of way, and other interests in lands as are necessary to carry out the program.

The Commission has contracted with the Bureau of Reclamation for acquisition of new and permanent easements required for the program and contributes \$150,000 annually to the maintenance of the cleared areas. No new phreatophyte clearing was undertaken, but all of the previously cleared areas in New Mexico (33,230 acres) were kept clear by root plowing during fiscal year 2007.



## **Rio Grande Basin Activity**

### **INTERSTATE STREAM ADMINISTRATION**

#### **Rio Grande Compact**

Both Colorado and New Mexico met their scheduled 2006 deliveries under the Rio Grande Compact and remained in an accrued credit status throughout the 2006-2007 fiscal year. During 2006, Colorado over-delivered a total of 11,700 acre-feet for an accrued credit as of January 1, 2007, of 15,500 acre-feet; New Mexico over-delivered a total of 150,000 acre-feet for an accrued credit as of January 1, 2007, of 180,100 acre-feet. New Mexico has not been in deficit in compact deliveries on the Rio Grande since 1990.

The most significant management challenge related to the Rio Grande Compact during the 2006-2007 fiscal year remained the impact of Article VII of the compact. Article VII prohibits the storage of native Rio Grande water in post-1929 reservoirs if the amount of usable water in Elephant Butte and Caballo reservoirs is below 400,000 acre-feet. When Article VII is in effect, New Mexico cannot increase native water storage in McClure and Nichols reservoirs on the Santa Fe River, El Vado Reservoir on the Rio Chama, or in any other reservoir built after 1929 in the Rio Grande Basin upstream of Elephant Butte Reservoir.

Article VII was in effect at the start of the 2006-2007 fiscal year (It went into effect on April 13, 2006.) and remained so until November 6, 2006, when usable water rose above 400,000 acre-feet primarily as a result of high reservoir inflows due to intense summer monsoon activity. Article VII went back into effect on January 1, 2007, as a result of the annual change in compact accounting and went back out of effect again on January 31, 2007. It remained out of effect during the 2007 spring snowmelt runoff, enabling the capture of additional storage in El Vado, McClure and Nichols reservoirs. The Commission maintained close coordination with the Middle Rio Grande Conservancy District, the City of Santa Fe and the U.S. Bureau of Reclamation throughout the 2006-2007 fiscal year as to when they could and could not store native Rio Grande water pursuant to the compact.

Commission staff continued to work with staff of the New Mexico Environment Department and New Mexico Attorney General's Office on issues related to threatened interstate compact litigation by the State of Texas over the Lower Rio Grande below Elephant Butte Reservoir.

#### **FEDERAL MANAGEMENT ISSUES**

During the 2006-2007 fiscal year, the Commission, the Bureau of Reclamation, and the U.S. Army Corps of Engineers completed efforts on a review and final environmental impact statement for the operation of federal facilities in the Rio Grande Basin above Fort Quitman, Texas. The review was undertaken to identify water operation flexibilities at existing federal water management facilities in the Rio Grande Basin above Fort Quitman, Texas, and to develop an integrated plan for basin water operations. The Commission participated as a joint lead agency with the Bureau of Reclamation and the corps in the review to assure that the resulting operations plan (1) supported New Mexico's compliance with its obligations under the Rio Grande Compact, (2) reflected New Mexico's



social and economic interests, and (3) protected the rights of New Mexico's water users. The final environmental impact statement was released on April 29, 2007. The joint lead agencies selected the most flexible operation plan as their preferred alternative. Separate records of decision will be issued by each of the three joint lead agencies stating their respective plans for future exercise of its authorities in light of the findings.

### Endangered Species Issues

The Commission provided direction and support to staff in the Middle Rio Grande to continue to work on long-term solutions for endangered species issues. In fiscal year 2007, staff implemented a number of projects that address elements of U.S. Fish and Wildlife's 2003 biological opinion for the middle Rio Grande and continued to work closely with the Middle Rio Grande Endangered Species Act Collaborative Program. The goal of the program is to meet endangered species habitat needs in the Middle Rio Grande while simultaneously protecting existing agricultural, municipal, industrial, and other beneficial uses of water.

Commission staff completed numerous projects designed to prevent extinction and promote recovery of the endangered Rio Grande silvery minnow. Siting and design work was completed and construction started on a new rearing and breeding facility for the silvery minnow. The facility – a refugium for the endangered fish – is in Los Lunas

on state-owned property. The refugium will consist of an outdoor stream that mimics ecological components of the Rio Grande, an indoor hatchery, and storage building. An aqua-culturist was hired in fall 2006 to manage the refugium.

The second phase of the Albuquerque habitat restoration project commenced with construction in January 2007. Over 35 acres of construction occurred between the U.S. Highway 550 bridge in Bernalillo and the Interstate 25 overpass north of Isleta Pueblo. Construction techniques designed to promote passive river processes and increased minnow habitat included bank-line clearing and cutting, island modifications, and high-flow channels on islands and bars. The Commission-led projects have been funded through a variety of sources including the New Mexico Water Trust Board, the Commission, and the collaborative program.

With focused research projects and monitoring of restoration projects, the Commission staff is gaining a better understanding of the life stages of the species. The U.S. Army Corps of Engineers conducted experimental water operations at Cochiti Reservoir as part of a short-term deviation of normal reservoir operations in spring 2007 to provide for a spawning and recruitment flow for the Rio Grande silvery minnow. Monitoring of this event was conducted and results are being analyzed.



Top: 1916 – Construction underway on the Elephant Butte Dam. (City of Las Cruces Museum System Collection)

Bottom: Elephant Butte Reservoir during the drought in 2003.

In November 2005, U.S. District Court Judge Parker issued a Memorandum Opinion and an Order and Final Judgment in the long running Rio Grande Silvery Minnow v. Keys lawsuit. The judge ruled the case moot, denied motions to vacate his earlier decisions, and

then affirmed those decisions. The state of New Mexico, along with the federal defendants and other defender intervener's appealed the decision to the U.S. 10th Circuit Court of Appeals in June 2006. The court heard oral arguments for that appeal in May 2007.

## WATER PLANNING AND DEVELOPMENT

### Improvement of the Rio Grande Income Fund Programs

The Commission continues to use funding from the Improvement of the Rio Grande Income Fund for numerous high-priority projects involving cooperation with the Bureau of Reclamation to maintain the river channel and associated drainage facilities along the Rio Grande between Velarde and Elephant Butte Reservoir to minimize conveyance losses and non-beneficial consumption of water. The Commission contributes funding and equipment to that effort, and the Bureau of Reclamation contributes manpower and equipment. Each year, work in the lower half of the Middle Rio Grande includes cleaning, mowing, and maintaining several drains; conducting levee repairs; and maintaining a pilot channel through the Elephant Butte Reservoir sediment delta.

Work in the 2006-2007 fiscal year work focused on construction and maintenance of the pilot channel through the sediment delta of Elephant Butte Reservoir. The work is done to ensure efficient conveyance of Rio Grande water into the active reservoir pool. By spring 2007, the Commission and the Bureau of Reclamation had succeeded in maintaining nearly 22 miles of pilot channel through the Elephant Butte Reservoir sediment delta, which effectively conveyed the 2007 snowmelt runoff into the reservoir. The pilot channel also helped to reduce the potential for a catastrophic breach of the river levees upstream of the reservoir during the summer 2006 high-volume monsoonal flows, and contributed significantly to the quantity of water delivered to the reservoir. Commission staff estimates that a properly maintained and functional pilot channel reduces evaporative losses by 15,000 to 20,000 acre-feet per year.

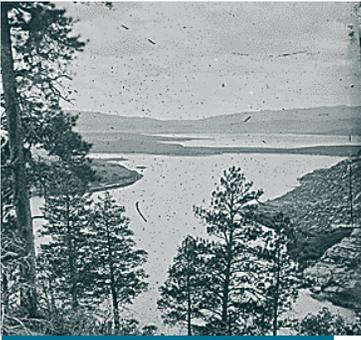
The Commission also continues to work with the Bureau of Reclamation to reduce the non-beneficial consumption of groundwater by invasive phreatophyte vegetation – high-water-use, non-native plants – on 11,000 acres of the delta areas at Caballo and Elephant Butte reservoirs. The Commission contributes funding and equipment to the program and the Bureau of Reclamation contributes manpower and equipment. The Legislature has restricted the use of funding for this work to maintenance of previously cleared areas. The primary means of clearing continues to be mowing. This project has been successful in controlling the growth of non-native vegetation at Elephant Butte Reservoir (below the Narrows) as the reservoir has receded.

The Commission continues to work with the Middle Rio Grande Conservancy District and the Elephant Butte Irrigation District to improve water management; water metering and measurement and data collection, storage, and retrieval. Such efforts are critical to gain a better understanding of where and how much water is being used and to better use the reduced amount of water available as a result of the recent drought. The Commission contributes funding and supplies to this effort and the districts contribute manpower and equipment.

The Commission is also continuing to conduct monitoring and data evaluation for a surface water and groundwater interaction characterization program in the reach of the Rio Grande from San Acacia to Elephant Butte Reservoir. This program seeks to characterize and understand the hydrology of the reach by refining the understanding of the temporal and spatial interactions between surface water and groundwater. Such an understanding is essential for making sound water management decisions related to endangered species management and Rio Grande Compact compliance. The characterization work included drilling and installing more than 140 piezometers (pressure gauges used to measure groundwater levels); installing staff gauges in the river, a low-flow conveyance channel, and riverside drains; and installing 70 automatic water-level data loggers. A project data compilation report will be finalized in the 2007-2008 fiscal year.

Finally, Commission staff developed a series of high-resolution linked surface water/groundwater models along the Rio Grande bosque in the middle valley. The numerical models are complete from Angostura Diversion dam to the Highway 380 crossing of





the Rio Grande. These models are used to evaluate the interaction among the river, the riverside drains and the riparian vegetation along the Rio Grande corridor.

### San Juan-Chama Project

The San Juan-Chama Project is a transbasin diversion authorized in 1962 by federal law to divert Upper Colorado River basin water allocated to New Mexico under the Upper Colorado Basin Compact into the Rio Grande Basin for use in New Mexico. The water is diverted from tributaries to the San Juan River and brought through a tunnel under the Continental Divide to the Rio Chama drainage, where it is stored in Heron Reservoir until it is released to New Mexico contractors for use in the Rio Grande Basin above Elephant Butte Reservoir.

## Refugium Groundbreaking

Rio Grande silvery minnow will feel right at home in an innovative facility designed for captive rearing and breeding to protect the fish from extinction and help in their recovery.

On April 12, 2007, the New Mexico Interstate Stream Commission hosted a groundbreaking event for the new facility within the Los Lunas Campus, a state-owned property that currently houses many community-based organizations.

Pueblo of Isleta Governor Robert Benevides performed a ground blessing at the site where an outdoor stream and a hatchery would soon be built. This facility will help with the survival and recovery of the Rio Grande silvery minnow by providing a place for the fish to spawn and grow in an environment that closely resembles its natural habitat.

Officials participating in the event included Congresswoman Heather Wilson, New Mexico Attorney General Gary King, State Engineer John D'Antonio, Interstate Stream Commission Chairman Jim Dunlap, Los Lunas Mayor Louis Huning, and Governor Benevides, as well as representatives from the offices of Governor Bill Richardson, Senator Pete Domenici, Senator Jeff Bingaman, and Representative Steve Pearce. The event was also attended by many participants of the Middle Rio Grande Endangered Species Collaborative Program, a group that since 2000 has sought to assist in the recovery of the listed endangered species in the Middle Rio Grande while protecting water-users rights. The highlight of the event was when fourth graders from Catherine Gallegos Elementary School sang a special silvery minnow song.



Maureen Haney

*Officials watch Pueblo of Isleta Governor Robert Benevides perform the ground blessing ceremony.*

The Los Lunas Silvery Minnow Refugium was funded through grants from the New Mexico Water Trust Board and funding from the Commission. HDR/FishPro Inc. designed the facility, which mimics the Rio Grande and incorporates the various types of fish habitat important for the Rio Grande silvery minnow's life cycle. The outdoor stream will be over 400 feet long and will meander past ponds and overbank areas – much like on the Rio Grande only at a smaller scale. The refugium will even experience spring runoff events that will be used to stimulate spawning and provide flooding in areas that are good habitat for eggs and newly hatched fish. Water will be recycled to conserve water. In addition, an indoor hatchery will house fish in aquaria to assist in spawning, research, and holding broodstock.

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Following the excitement of the groundbreaking ceremony, SmithCo, the contractor selected for construction began work. The facility is expected to be completed by spring 2008. The Commission hired a refugium manager, Douglas Tave, an experienced aquaculturist.

Diversions from the San Juan River Basin by the San Juan-Chama Project in any given year are limited by the available water supply. The project has three points of diversion in Colorado on the Blanco River, the Little Navajo River and the Navajo River. The diversions are operated to provide minimum bypass flows required by the authorizing legislation for the preservation of fish and aquatic life in the Blanco and Navajo rivers.

The total quantity of water delivered into Heron Reservoir during the 2006 calendar year was about 79,000 acre-feet. At the end of 2006, storage of San Juan-Chama Project water in Heron Reservoir was approximately 183,000 acre-feet, a slight decrease from 2005.

## Acequia Construction Program

Acequias, or community ditches, are recognized under New Mexico law as political subdivisions of the state. Many of the state's acequia associations have been in existence since the Spanish colonization period of the 17th and 18th centuries. Historically, they have been a principal local government unit for the distribution and use of surface water. The associations have the power of eminent domain and are authorized to borrow money and enter into contracts for maintenance and improvements. The costs of maintenance and improvements are borne by the individuals served by the irrigation system.

The Commission has established an Acequia Construction Program to assist acequia associations with construction and repair projects. The U.S. Department of Agriculture's Natural Resources Conservation Service (NRCS) and the U.S. Army Corps of Engineers support the

Acequia Construction Program. Commission staff coordinates the involvement of these agencies, support and advise the acequias, review design and construction, and manage state and federal support in the form of loans or grants.

In 2006, the Commission entered into a multi-year agreement with the NRCS to provide design work on acequia projects. Previous agreements were on a year-to-year basis. The multi-year agreement allows for more efficient staffing by NRCS. The Commission funds up to \$250,000 of work per year with actual costs based on New Mexico Society of Professional Engineers cost schedules.

The Acequia Construction Program includes five ongoing sub-programs: the Loan Program, the 80/20 Acequia Grant Program, the Corps Section 215 Acequia Program, the Corps Section 1113 Acequia Program, and Legislative Special Appropriations Projects (capital projects).

*Loan Program.* The loan program makes low-interest loans from the Irrigation Works Construction Fund available to acequia, community ditch, and other organizations for construction and repair of irrigation works. Acequia associations may use the loans to pay their share of costs of construction programs. The loans are provided at 2.5 percent interest and the usual repayment period is 10 years.

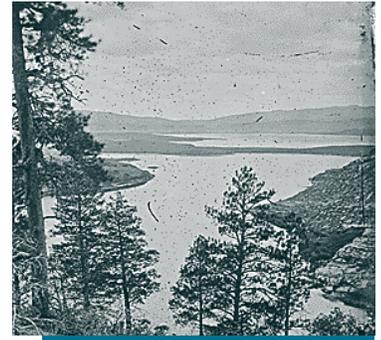
*80/20 Grant Program.* The New Mexico State Legislature appropriates funds from the Irrigation Works Construction Fund to the State Engineer for grants for improvement and repair work on specific acequias. Eighty percent of project cost, up to \$96,000 per project, can be covered by the grant. Total construction costs for this program are capped at \$120,000.

*Section 1113 and Section 215 Acequia Programs.* The federal Water Resource and Development Act of 1986 authorized the Secretary of the Army to undertake measures necessary to preserve and restore the diversion structures and associated canals of acequias. Under both the Section 1113 and Section 215 programs, the federal government funds 75 percent of total project costs. The annual federal funding for Section 1113 and Section 215 Programs, routed through the U.S. Army Corps of Engineers, ranges from approximately \$1.5 million per year to about \$5 million per year. The Commission provides 17.5 percent of the total cost and the acequia association provides 7.5 percent of the total cost.

Under the Section 1113 Acequia Program, the Corps is responsible for all design, National Environmental Policy Act (NEPA) compliance activities, real estate easements, advertisement of the construction bids, contract awards, construction inspection and oversight, and project financial management. Under the Section 215 Acequia Program, the acequia manages construction. NRCS typically completes the project design through the Commission's technical assistance programs. The Corps manages NEPA compliance activities.

In July 2002, the Corps and Commission signed an agreement concerning the Section 215 and Section 1113 programs that clarifies the responsibilities of each agency and specifies criteria for design deadlines, compliance activity schedules, program and project financial reporting, and project prioritization and construction timelines. The agreement supplements a March 8, 1999, agreement between the Corps and the Commission.

*Acequia Capital Projects.* The New Mexico State Legislature appropriates funds to individual acequias for specific projects. Commission staff reviews plans, specifications, and ditch eligibility; executes contracts and agreements; and inspects the completed projects.



### FY07 Completed Acequia Rehabilitation Projects

**80/20 Grant Program:** Rio Hondo Acequias, \$110,000; Canones Ditch No. 1, \$141,000.

**Section 215 Grant Program:** Acequia de los Ancones, \$437,000; Mulcock-Foley-Powell, \$75,936; Acequia de los Utes, \$45,418.

**Section 1113 Program:** Acequia Posecion, \$2.5 million; Turley Manzanares Ditch, \$1.8 million; La Joya Acequia, \$1.2 million.

# Appendix A

## Status of Active Adjudications

### INTRODUCTION

Water rights adjudications are currently pending in both federal and state courts in New Mexico. These lawsuits were filed to determine the elements of the water rights within the Pecos River stream system, several Rio Grande tributaries, the San Juan River stream system, the Lower Rio Grande stream system, the Zuni River stream system and the Animas Underground Water Basin.

### PECOS RIVER STREAM SYSTEM

*State of New Mexico ex rel. State Engineer and Pecos Valley Artesian Conservancy District v. Lewis, et al. and State of New Mexico ex rel. State Engineer and Pecos Valley Artesian Conservancy District v. Hagerman Canal Co., Fifth Judicial District Court, Chaves County, Cause Nos. 20294 and 22600, consolidated (Lewis adjudication), involve the adjudication of all ground and surface water rights in the Pecos River stream system.*

By necessity of scale, this adjudication has been conducted within sub-areas loosely described by the six groundwater basins within the stream system.

Since its inception in 1956 in the Roswell Artesian Basin (RAB), this adjudication was expanded twice, in 1974 and again in 1976 to include the entire Pecos River stream system. The United States Supreme Court entered an Amended Decree in 1988, which requires New Mexico to timely meet its water delivery obligations to Texas pursuant to the Pecos River Compact.

The state is performing the work necessary to complete the Lewis adjudication, thereby meeting three objectives: (1) facilitate Pecos River administration in New Mexico according to the doctrine of prior appropriation, in the event it is necessary; (2) facilitate the success of the implementation of the 2003 CID Project settlement agreement; and (3) facilitate New Mexico meeting delivery obligations to Texas under the Pecos River Compact. The following describes the progress made in the adjudication to date.

**ROSWELL ARTESIAN UNDERGROUND BASIN:** This adjudication began in 1956 with a suit to adjudicate all groundwater rights in the RAB in order to eliminate illegal and excessive pumping.<sup>1</sup> A number of the groundwater rights were supplemental to the Hagerman Canal surface water rights, so a separate action was filed in 1958. The two cases were later consolidated and, in 1966, the District Court entered a decree adjudicating approximately 3,000 water rights. The decree was appealed. In 1967, the New Mexico Supreme Court ruled, in *State ex rel. Reynolds v. Allman*, 78 N.M. 1, 427 P.2d 886 (1967), that all priorities in the adjudication must be determined using the same criteria. That 1967 ruling allowed the 1966 decree to be re-opened and individual RAB groundwater rights owners to pursue a re-adjudication of pre-1947 groundwater rights in order to relate their priorities back to antecedent surface water right priorities. The re-adjudication of approximately 2000 "relation-back" claims continues today. Status: Active.

Adjudication of the state law rights for federal holdings was completed by 1996 and the only federal reserved water rights claim is for the Bitter Lake National Wildlife Refuge. Following negotiations, the state and the United States came to an agreement about this claim and, in January 2007, the state mailed a Consent Order, signed by the state's attorney, to the United States so that appropriate federal officials could sign it. To date, the United States has not signed the Consent Order or returned it. Status: Active.

**Pecos River Supplemental Adjudication:** Since 1982, 33 of the 48 additional surface and groundwater rights claimed to have been omitted from the 1966 RAB decree have been adjudicated. Status: Inactive.

**Pecos River Miscellaneous Adjudication:** There exist approximately 90 additional miscellaneous unadjudicated groundwater declarations in the RAB and Fort Sumner Groundwater Basins. Status: Inactive.

**RIO HONDO STREAM SYSTEM:** Adjudication of the water rights of the Mescalero Apache Tribe (1993 Final Judgment), the Lincoln National Forest (1979 Judgment) and the non-Indian water right owners (entry of consent orders) is nearly complete, with only the *inter se* segment remaining. Status: Active.

**FORT SUMNER GROUNDWATER BASIN:** The court entered subfile orders for 105 groundwater rights between 1980 and 1995; and the hydrographic survey for the surface water rights will take approximately two years to complete once resources are available. Status: Inactive.

**CARLSBAD UNDERGROUND WATER BASIN (CUB):** For case management purposes, the adjudication of water rights in the CUB has been divided into (1) the CID surface rights adjudication<sup>2</sup>; (2) the CUB groundwater adjudication; and (3) the Black River stream system adjudication. The state's focus at present is on the CID surface rights adjudication.

**CID Project:** Under a February 1996 pretrial order, briefing of all procedural issues and threshold legal issues was completed. The court granted the state's motion to consolidate the Members and Project adjudications in April 1996 to allow members to participate in briefing of issues that affect them. By May 2002, the court issued its final decision on all procedural and threshold legal issues. It determined that the diversion and storage rights of Project water are held by the United States for the members of the CID, and ruled that (1) the decree adjudicating the water rights of the project will be binding on all water right owners in the Pecos River stream system, (2) objectors are precluded from challenging the determination of the 1933 Hope Decree as it pertains to the rights and interests of the United States in the project, and (3) the United States is not an indispensable party to adjudication of the rights of the individual members of the CID. This left only the project priority date and amounts of water to be litigated.

From 2002 through 2003, the state negotiated with CID, Pecos Valley Artesian Conservancy District, Fort Sumner Irrigation District and the United States Bureau of Reclamation to settle the project (offer) phase of the litigation, as directed by the legislature through its enactment of NMSA 1978, § 72-1-2.4 (2002).

The negotiating parties executed a settlement agreement on March 25, 2003, resolving, (1) the priority dates, (2) the project's diversion and storage amounts, and (3) a structure for addressing priority call and short-delivery events. Under the terms of the settlement, certain conditions precedent must be met or waived by August 31, 2007. If these conditions are not met or waived, and if the deadline is not further extended, the settlement will be considered void ab initio and the project litigation will be restored to the status quo prior to the initiation of the settlement negotiations. On December 10, 2004, the court entered a partial final decree approving and adopting the settlement agreement. Two objectors to the

settlement agreement filed an appeal from this decree. In November 2006, the Court of Appeals resolved the matter in favor of upholding the settlement, *State ex rel. Office of the State Engineer v. Lewis*, 2007-NMCA-008, 141 N.M. 1, 150 P.3d 375 (Ct. App. 2006). The Court of Appeals' decision was not appealed to the Supreme Court.

**CID Members:** The state has filed the hydrographic survey reports for CID Sections One, Two and Four and has completed the adjudication of the members' rights in those sections. The state will complete the adjudication of members' rights in CID Section Three by the end of 2007 and the court has been notified that the CID will be ready for *inter se* at that time. Status: Active.

**CUB Groundwater:** The hydrographic survey is scheduled for completion in 2008. Joinder of water right claimants and service of consent orders will follow thereafter. Status: Active.

**Black River Stream System:** Status: Not initiated.

**UPPER PECOS UNDERGROUND WATER BASIN:** The adjudication of the Upper Pecos Underground Water Basin began with the filing of the Hydrographic Survey Report in 1977. Consent orders for many of the groundwater rights have been entered, but the adjudication of this basin stalled when the court ordered the state to concentrate its resources in other areas. Status: Inactive.

**GALLINAS RIVER STREAM SYSTEM:** In 1991, the five-volume Gallinas River Hydrographic Survey Report for surface water rights was filed with the court. Since that time, the state has adjudicated the Storrie Lake Irrigation Project (Storrie Project) water rights, portions of the City of Las Vegas (City) water rights, and some of the individual owners' water rights. The court decreed Storrie Project water rights in the mid-to-late 1990s, for approximately 70 individual subfile owners. Thereafter, the court redirected the state's focus from the Gallinas to the CID area of the adjudication.

In the fall of 2002, a group of acequias moved for, and the District Court ordered the state to resume, active adjudication of their water rights. The state has attempted to complete as much of the remaining volumes (3, 4 and 5) of this subsection, but has continued to be delayed because necessary resources have been diverted to litigate issues raised by the acequias and by the Gallinas Canal. Status: Active.

**City of Las Vegas Remand:** The New Mexico Supreme Court issued its Opinion and Mandate in April 2004 rejecting the City of Las Vegas' claim to a pueblo doctrine water right. The Supreme Court remanded the matter with instructions to the District Court to fashion an equitable reliance right for the City. Since that remand, extensive negotiations and litigation have occurred involving the City of Las Vegas, the state, the United States, numerous acequias, Storrie Project and the Gallinas Canal. This matter is continuing in parallel with the adjudication of the individual water right claims in the Gallinas stream system, requiring the state to divide its limited resources in the Gallinas area between these two activities. Status: Active.

**RIO PEÑASCO STREAM SYSTEM:** Status: Not initiated.

### RIO GRANDE STREAM SYSTEM

**Rio Pueblo de Taos and Rio Hondo.** *State of New Mexico ex rel. State Engineer v. Abeyta, et al.*, U.S. District Court Nos. 69-cv-7896 BB and 69-cv-7939 BB, are consolidated lawsuits for the adjudication of all water rights in the Rio Pueblo de Taos and Rio Hondo stream systems.

**Taos Pueblo Claims.** Claims on behalf of Taos Pueblo were originally filed on August 1, 1989. Subsequent claims were made in 1992, 1996, and 1997. Summary judgment motions by the state and certain non-pueblo defendants seeking the dismissal of some of these claims are still pending before the special master. Beginning in 2003, the parties intensified efforts to resolve the Taos Pueblo claims through mediated negotiations. In the spring of 2006, these efforts produced a proposed settlement agreement among the state, the pueblo, the United States, and non-Indian water right owning parties. On May 30, 2006, all parties except the United States signed the settlement agreement at a ceremony at Taos Pueblo. Federal legislation approving the settlement is necessary before the United States will execute the settlement agreement.

Legislation to implement the settlement agreement has been drafted and presented to New Mexico's Congressional Delegation.

**Remaining Claims.** With the exception of priority dates, nearly all non-pueblo surface water rights have been provisionally adjudicated in the Taos and Rio Hondo stream systems. Efforts to resolve the remaining non-pueblo claims in the last few years include the following:

**MDWCA Claims.** The special master conducted an evidentiary hearing on the rights claimed by twelve Taos-area Mutual Domestic Water Consumer Associations in August 2001, and post-trial briefing was completed in 2002. These claims have since been resolved by the Taos Pueblo claims settlement, and consent orders adjudicating the MDWCAs' water right claims were entered by the court in October 2006.

**Remaining Individual Claims.** In January 2002, pursuant to a special master deadline, approximately 120 claims were filed alleging that water rights were either incorrectly adjudicated or erroneously omitted from the adjudication. Following field-checks and analysis of historical aerial photography, all of these claims were resolved in 2004.

**Remaining Acequia Claims.** In January 2002, approximately 25 community acequias filed claims of error in the state's hydrographic survey or the court's orders. All of these claims have been resolved. Under a separate process, 22 acequias also submitted to the state, in June 2002, claims to water from various springs in the Taos and Rio Hondo stream systems. The state field investigated these complex claims during the summers of 2002, 2003, and 2004, and some of these claims have been resolved by consent order as the result of these investigations. Twenty acequias filed springs claims with the court in June 2005, thereby commencing the official process for resolving those claims and all but one of these claims have since been resolved.

**Court's Errors and Omissions Process.** The state and the court's data manager are conducting a thorough errors and omissions process to prepare for issuance of the partial final decree for non-pueblo water rights. This process is ongoing and identifies and corrects apparent discrepancies between adjudicated subfile orders and hydrographic survey maps.

**Subfile Priority Dates.** In February 2002, the court began the process of acting upon special master Zinn's 1993 report on priority dates for non-pueblo subfiles. The court has entered three orders confirming the priority dates of multiple acequias, but the court has not yet issued an order confirming the priority dates of several other acequias.

**Santa Fe River.** *Anaya v. Public Service Company of New Mexico*, Santa Fe County Cause No. 43, 347, was filed in 1971 and re-filed in 1974. The state intervened in the suit in 1975 and completed the Santa Fe hydrographic survey in 1978.

<sup>1</sup>Until 1965, the statutes provided that the cost of an adjudication was charged to the water rights owners based on their water rights. See NMSA 1953, § 75-4-6 (amended 1965)

<sup>2</sup>The adjudication of the Carlsbad Project is divided into two phases: The adjudication of the water right of the Project itself, which is final, and the adjudication of the water rights of the individual members of the Project, which is ongoing.

In 1990, the Public Service Company of New Mexico was ordered to release Santa Fe River water from its dams in an amount calculated to reach the downstream Acequia Madre and Acequia Upper Cerro Gordo. There is now in place an operating agreement that requires the State Engineer to certify that these two acequias, parties to the lawsuit, are prepared to accept water from the releases. Every spring the State Engineer must conduct a field visit to these two ditch systems and submit a report to the court stating the condition of the ditches and whether water should be released.

The Sangre de Cristo Water Company, previously owned by the Public Service Company of New Mexico, sold its water rights and water system to the City of Santa Fe. The City's previously held rights and those of Sangre de Cristo have been merged and will be adjudicated together. The City and the State Engineer are working to identify the City's water rights and negotiate a consent order. The attorney from the LAP Northern New Mexico Bureau permanently assigned to the Santa Fe adjudication has conducted a detailed review and analysis of the history and status of the adjudication and is adjudicating the remaining subfiles.

**Rio Chama.** *State of New Mexico ex rel. State Engineer v. Aragon, et al.*, U.S. District Court No. 69-cv-7941 BB, involves the adjudication of all water rights in the Rio Chama stream system, including the claims of the United States, Ohkay Owingeh (previously San Juan Pueblo), and the Jicarilla Apache Nation. The suit was originally filed in state court, and then was removed to the federal District Court in 1969. The federal suit incorporates prior state court orders adjudicating non-federal water rights on the mainstem Rio Chama below Abiquiui Dam and on the Rio Puerco, a tributary to the Rio Chama. For purposes of the survey and the adjudication, the Rio Chama stream system was divided into 8 Sections.

Surface water rights in the Rio Chama mainstem section<sup>3</sup> have been provisionally adjudicated. A water master appointed pursuant to a 1971 Partial Final Judgment and Decree administers diversions in this area to prevent unauthorized diversion of non-native water imported into the basin by the San Juan-Chama Project. In 1985, the court appointed an expert to assist in a redetermination of priority dates for ditches in Section 1, and after completion of a historical report by the court-appointed expert, the state served orders on community acequias and individual irrigators that required them to show cause why those dates should not be revised. Evidentiary hearings were held in 1997 with respect to the disputed priority dates of three community ditches, but the special master has not submitted a report to the court based on those hearings. Presently, the state is reinitiating work to complete the redetermination of priority dates in this section in order to amend the partial final decree entered in 1971.

Surface water rights in Section 4, El Rito, Section 6, the Cañones Creek area, and Section 8, the Rio Puerco area, also have been provisionally adjudicated. The adjudication of surface water rights in Section 2, Ojo Caliente and Vallecitos, is 80 percent complete but has been generally inactive since the late 1990's. Substantial adjudication work in this section will not be scheduled until completion of work in other sections, particularly Sections 3 and 7.

The amended hydrographic survey report for Section 5, Rio Gallina, was filed with the court in January 2000. All claims with respect to the amount and location of irrigated acreage have been resolved, and, in February 2005, a stipulation was filed with the court on priority dates for the community ditches in Section 5. In 2007, the state and community ditches reached a settlement agreement on irrigation water requirements in this section. The state and parties are discussing plans for further proceedings to finalize priority dates and irrigation water requirements, and a final *inter se* proceeding that will lead to a partial final decree for Section 5.

Hydrographic survey reports for Section 3, Rio Nutrias, Rio Cebolla, and Canjilon Creek, were completed and filed with the court between June and August 2000 and the determination of claims in these areas is approximately 90 percent complete. The determination of priority dates and irrigation water requirements has been reserved for future determination.

The hydrographic surveys for Section 7, Rito de Tierra Amarilla, Rio Brazos, Rutheron and Plaza Blanca, Cañones Creek, and Village of Chama, were completed between 2001 and 2003. The defendants have been joined to the adjudication and the determination of claims in these areas is approximately 85 percent complete. As in Sections 3 and 5, the determination of priority dates and irrigation water requirements has been reserved for future determination. Water right claims of the Jicarilla Apache Nation on 1,146 acres of non-reservation lands formerly owned by the Chama Land & Cattle Company were resolved by the approval of four consent orders in April 2006.

The state is also negotiating the reserved water right claim of the United States under the Wild & Scenic Rivers Act below El Vado, and is in the process of evaluating the United States' claims for stock and wildlife uses in Section 3. A proposed consent order for the United States' claims for stock and wildlife uses in Section 5 was served upon the United States in December 2005 and is awaiting evaluation of a small number of additional claims subsequently raised by the United States.

The water uses of the Jicarilla Apache Nation are subject to a Partial Final Judgment and Decree entered in April 1998. The Jicarilla Apache Nation is presently making a survey of its uses on lands acquired and placed into trust status after the entry of the 1998 decree. The state will review this report in the fall of 2007 and make field inspections of those uses in 2008.

In the spring of 2007, the United States and Ohkay Owingeh filed Subproceeding Complaints for the adjudication of water rights based on past or present uses of the pueblo. Numerous parties, including the state, filed Answers to the claims of the pueblo which will be addressed in a stream-system-wide proceeding. Further proceedings have been stayed pending preparation of an administrative order on case scheduling to coordinate work in the Rio Chama adjudication and the adjudication of Indian water rights in other pending adjudications.

**Rio San Jose.** *State of New Mexico ex rel. State Engineer v. Kerr-McGee Corp.*, Cibola County Cause Nos. CB-83-190-CV and CB-83-220-CV, is the general water rights adjudication suit concerning the Rio San Jose stream system. In the early 1990's, the District Court granted the state's motion for partial summary judgment on the water rights of the pueblos of Acoma and Laguna. The Court included language permitting interlocutory appeal. The Court of Appeals ultimately remanded the case to the District Court for further action on issues relating to the quantification of the pueblos' claims for existing and historic uses. Petition for certiorari to the New Mexico Supreme Court was denied. After the remand of this case to the District Court, the case was inactive for several years.

In January 2001, a new special master was appointed to preside over the adjudication. In September 2002, the court granted the joint motion of the state and the United States to establish an expedited *inter se* subproceeding to adjudicate the water rights of Acoma Pueblo and Laguna Pueblo based on past and present uses of water. The United States on behalf of the pueblos, as well as the pueblos of Acoma and Laguna, have filed their Answers to the state's Subproceeding Complaint asserting and detailing the water right claims of the pueblos based on past and present uses of water. Evaluation of these claims by the state and other parties is proceeding.

<sup>3</sup>Consisting of the mainstem of the Rio Chama and tributaries from El Vado Dam to the confluence of the Rio Chama and the Rio Grande.

In the summer of 2004, the state provided extensive notice of the expedited subproceeding to landowners, potential water right claimants and the public at large. The notified water right owners in the stream system were given an opportunity to object to the water right claims of the pueblos. Approximately 1,200 objections were filed. Of these objectors, approximately 60 have opted to be active parties in the subproceeding. In 2006, the subproceeding transitioned from a procedural to a more substantive posture. The United States, the pueblos, the state and other parties have submitted their initial disclosures (list of potential witnesses and documents supporting their claims).

In early 2006, following a status conference, the special master signed a pre-hearing order establishing deadlines in the subproceeding for the identification of expert witnesses and production of expert reports, initial dispositive motions and discovery (April 30, 2010). Some written discovery and deposition discovery has begun. Visits by the parties and their experts to some of the relevant pueblo and non-pueblo sites occurred in 2006 and 2007. In January 2007, the United States and the pueblos of Acoma and Laguna served reports from their testifying experts. The state's testifying experts are in the process of continuing their research and drafting their reports for service in early 2008. Significant legal issues may be raised by motion in late 2007 through mid-2008.

**Rio Santa Cruz and Rio de Truchas Systems.** *State of New Mexico ex rel. State Engineer v. Abbott, et al.*, U.S. District Court Nos. 68-cv-7488 BB and 70-cv-8650 B, the consolidated Rio Santa Cruz and Rio de Truchas adjudication suits, were filed in 1968 and 1970, respectively. The suits were consolidated in 1970 because some water right claimants in the Rio de Truchas suit use the Acequia de la Sierra to divert water from the North Fork of the Rio Quemado, a tributary of the Santa Cruz River, for use in the Truchas area.

The Rio Santa Cruz adjudication was filed in response to a proposal to construct the Llano Unit as a tributary project of the San Juan-Chama diversion project, to divert water from the Rio Grande at Velarde and deliver it as a supplemental supply for lands irrigated from the lower Santa Cruz River. The Llano Unit ultimately failed to obtain the necessary local support for construction, however, and the San Juan-Chama project water has been allocated to other uses.

In 1975, the District Court entered a Partial Final Decree confirming and approving all prior orders adjudicating water rights in the Santa Cruz and Truchas stream systems. The 1975 Decree adjudicated *inter se* the water right claims of 2,500 defendants in approximately 3,500 individual subfile orders. The adjudicated irrigation water rights totaled 5,045.38 acres in the Santa Cruz River System and 2,159.80 acres in the Rio de Truchas system. The decree reserved jurisdiction to adjudicate water right priorities and the water rights of the United States and the pueblos of San Juan, Santa Clara, and San Ildefonso.

Since the entry of the decree, community acequias in Truchas have identified additional tracts which they claim should have been adjudicated irrigation water rights. In the Rio Santa Cruz, approximately 155 water right claimants submitted written requests for correction to subfile orders adjudicating water rights for 186 tracts of land. To date, 22 claims remain unresolved.

At the time the 1975 Partial Final Decree was entered, approximately 13 community ditches and 300 individuals filed objections to water right priorities adjudicated to other parties in subfile orders. The Court reserved jurisdiction in the 1975 Decree to consider and decide these objections at a later time. The Court appointed two historians to investigate Spanish and Mexican archives to find evidence documenting early irrigation. The historians' draft report was completed in 1986. In 1995, the state filed pleadings describing stream flow allocation rights between community acequias in the Santa Cruz and Truchas systems. The state also took the depositions of individuals who have knowledge of stream flow allocation. The Court's historian completed additional research on the Santa Cruz system priorities in 2001.

The water right claims of the pueblos within the adjudication are now being addressed in a series of subproceedings defined by a procedural order entered by the court's special master. In Pueblo Claims Subproceeding 1, certain water right claims of the pueblos of Nambé and San Ildefonso were resolved by a negotiated settlement agreement filed on March 15, 2002 and a consent order filed on September 12, 2005. The United States, the pueblos of San Juan and Santa Clara, the state, the City of Española, Santa Fe and Rio Arriba Counties, and acequia associations from the Truchas and Santa Cruz areas all were parties to Subproceeding 1. Subproceeding 2, involving pueblo claims based on past or present uses of diverted water on the lands of Ohkay Owingeh (formerly San Juan Pueblo), was initiated in March 2005 by the filing of subproceeding complaints by the United States and Ohkay Owingeh. The state, Santa Clara Pueblo, the City of Española, Santa Cruz Irrigation District, and acequia associations from the Truchas and Santa Cruz areas filed their Answers to the subproceeding Complaint in 2005. The United States served their expert reports in September 2006 and Ohkay Owingeh will serve theirs in August 2007.

**Jemez River.** *United States v. Abouseman, et al.*, U.S. District Court No. 83-cv-1041 MV, was filed by the United States on its own behalf and on behalf of the pueblos of Jemez, Santa Ana, and Zia to adjudicate water rights in the Jemez River system.

During the 1996 drought, the pueblos of Jemez and Zia moved for a temporary restraining order (TRO) and preliminary injunction seeking to curtail non-Indian irrigation diversions above the pueblos. The Court did not grant the TRO or preliminary injunction, but instead entered an Order adopting a stipulation between the pueblos and the non-Indian community acequias that established a rotation schedule to share the available supply in dry years.

The Court has entered a Partial Final Decree for the proprietary claims of the United States, except for its Wild and Scenic River claim. A consent order on the United States' Wild and Scenic River claim has been submitted to the special master and the state and the United States are in the process of preparing a partial final decree to propose to the court.

In 1991, a proposed partial final decree on the water rights of non-federal, non-pueblo parties was prepared and made available for public inspection. The pueblos filed *inter se* objections to 61 subfiles. Over several years, the court ruled on all these objections and, on December 1, 2000, the court entered a Partial Final Decree for the water rights of non-pueblo, non-federal parties in the Jemez stream system.

Although the adjudication of non-pueblo, non-federal water rights was completed in 2000, the New Mexico Commissioner of Public Lands filed a "Declaration" in September 2004 claiming federal reserved rights to groundwater beneath state trust lands. The Court entered an order dismissing the Declaration in July 2005.

Litigation over the claims of the pueblos of Jemez, Zia, and Santa Ana, and of the United States on behalf of those pueblos, dates back to the 1980s. In proceedings addressing claims based upon the historic and existing uses of the pueblos, the special master held evidentiary hearings in July and December 1988. The special master filed his report and recommendation to the court on these claims in October 1991, and the United States and the pueblos filed objections to that report. The Court has not yet ruled on the 1991 special master's report.

In separate proceedings concerning the future use claims asserted by and on behalf of the pueblos, the special master, in September 1988, recommended rulings to the court on summary judgment motions argued by the state,

the United States, the pueblos, and non-Indian defendants. The United States and the pueblos filed objections to the special master's report, and, in December 1989, the court held oral arguments on those objections.

In 2004, the court directed the parties to provide additional briefing on the objections to the 1988 and 1991 special master's reports. That briefing was completed in July 2004. In a Memorandum Opinion and Order entered in October 2004, the court granted in part and denied in part the summary judgment motions of the state and the non-Indian defendants concerning the pueblos' future use claims. In that same Opinion and Order, the court declined to act on the special master's 1991 report and recommendation on the pueblos' historic and existing use claims.

Pursuant to a November 2004 Scheduling Order, the pueblos provided proposals for the settlement of their claims to the state and non-Indian parties in June 2005. In the spring of 2007, the parties agreed to engage in a time-limited phase of settlement discussions through the end of 2007. The parties then hired a neutral mediator who performed an assessment and presented his conclusions and recommendations to the parties. The parties have advised the court that they will work to develop agreed-upon settlement principles by December 15, 2007.

**Rio Pojoaque System.** *State of New Mexico ex rel. State Engineer v. Aamodt*, U.S. District Court No. 66-cv-6639 MV, was filed in 1966 and involves the adjudication of all water rights in the Rio Pojoaque system, including the claims of the pueblos of Nambé, Pojoaque, Tesuque, and San Ildefonso. The lawsuit has been active since that time, and has resulted in the adjudication of a significant portion of those rights – both pueblo and non-pueblo.

**Global Settlement.** For the past eight years, the parties have been engaged in discussions aimed at resolving through a global settlement all remaining issues in the case, including the claims of the pueblos of Nambé, Pojoaque, Tesuque, and San Ildefonso. Since August 2000, proceedings before the special master have been stayed to facilitate these settlement negotiations. The negotiations have been mediated by a former Arizona District Court Judge and are protected from public disclosure by a confidentiality agreement. Congress has contributed \$1.5 million to the process to perform a settlement study of a pipeline project that might serve as the centerpiece of any settlement.

In February 2004 the draft *Aamodt* settlement agreement was made public by the mediation parties, followed by a series of public meetings designed to provide information about the settlement agreement, and to take comments and reactions from the parties affected. In May 2004, in response to public opposition regarding the proposed settlement, the court appointed two individuals to represent the opposition parties in the ongoing global settlement negotiations. Since that time, attorneys representing large groups of opponents of the original settlement have also joined the mediation process.

Then, in January 2005, the United States informed the court and its mediation partners that a likely federal contribution to the *Aamodt* settlement would be on the order of less than one quarter of what has been previously contemplated. Nonetheless, negotiations continued.

In the months following that announcement, the negotiating parties wrestled with the twin problems of community opposition and lack of funding for the Settlement Project. The approach decided upon was to step out of the original settlement agreement and to develop a second, shorter, more conceptual document, to describe in broad terms how the original settlement agreement must be changed. In June 2005, an agreement was reached on a Conceptual Proposal, at least as between the attorneys at the negotiating table, which was then integrated into the original settlement agreement, to develop a consolidated settlement document the attorneys could recommend to their clients. The consolidated settlement document incorporated significant changes to the settlement agreement, addressing the concerns expressed by the public in 2004. On February 1, 2006, the result, a revised settlement agreement, was released. Public information meetings were held, and on May 3, 2006, at a ceremony held in the office of Governor Richardson, the *Aamodt* settlement agreement was signed by all governmental parties (with the exception of the United States, which has represented that it will not execute the settlement agreement without an act of Congress).

The settlement agreement is a complex document based on four major concepts. First, the pueblos would agree to forbear from making priority calls against non-pueblo surface water users except under certain circumstances, thereby preserving existing surface water users in the Nambé-Pojoaque-Tesuque. Second, the United States would acquire 2,500 acre-feet of additional water for the pueblos' economic development, intended, in part, to compensate them for the water they would not be able to take as a result of their forbearance. Third, a pipeline would be constructed at the United States' expense to deliver water to pueblo and non-pueblo users in the basin from the Rio Grande. Fourth, non-pueblo parties currently using domestic wells would cap their wells, stop pumping groundwater and hook up to the pipeline. As a result of including representatives of the opposition in the negotiations, the capping of wells and hooking up to a water utility system under the *Aamodt* settlement agreement will now be voluntary.

The settlement agreement resolves all pueblo water right claims in the stream system. Negotiations continue with regard to cost sharing and system implementation. Legislation necessary to implement the *Aamodt* settlement agreement has been drafted and presented to New Mexico's Congressional Delegation. It is presently anticipated that, after the passage of such legislation, the parties will jointly move the court for approval of the settlement agreement. Service of the proposed settlement agreement on all parties to the *Aamodt* lawsuit, and proceedings to hear any objections to the settlement agreement, will follow, in a process which will extend, at a minimum, into 2010.

Even in the context of a fully funded and approved *Aamodt* settlement agreement, there remain significant adjudication tasks to be completed. Priorities for surface water, and quantities and priorities for hundreds of ground water rights, remain to be adjudicated and *inter se* proceedings, as between claimants, will have to be undertaken and completed.

With regard to these tasks, beginning in January 2007, the state began the hydrographic survey of all groundwater uses in the Nambé-Pojoaque-Tesuque stream system to clarify location data, confirm ownership information and ensure that the final decree includes a comprehensive catalog of groundwater uses. The vast majority of those groundwater uses are domestic wells. They fall into four classes, based on the date they were constructed or permitted.

The wells currently being surveyed include pre-basin wells, that is, domestic wells which were drilled prior to the declaration of the basin in 1956, for which no State Engineer permit was necessary, and permitted wells, which were permitted by the State Engineer and constructed after 1956, but before the court's injunction of January 13, 1983. Adjudication proceedings concerning the remaining wells in those two categories (approximately 200 in total) are currently stayed.

The other two classes of wells being surveyed are post-1982 wells, which were permitted after the January 13, 1993 court order restricting subsequent well permittees to indoor uses only, and post-1982 settlement wells, which concern the 325 well owners who entered into a settlement agreement allowing them to use water from their wells for outdoor use. The post-1982 settlement wells have been adjudicated, but there are approximately 1000 post-1982 wells to be surveyed and adjudicated.

On June 14, 2007, the court lifted its stay pertaining to adjudication proceedings regarding post-1982 wells. The state then began joining claimants of water rights under that class of wells and serving them with proposed Domestic Well Orders.

Other issues in the case, but which fall outside the scope of the court's agenda for litigation at this time, include: **Comprehensive Basin Administration Plan.** The state and the United States have jointly proposed a plan for the metering and/or measurement of all diversions in the basin for the purpose of administration of water rights. Refinement of the metering plan, development of a water-rights administration plan for the basin, and attempts to obtain funding for implementation of both plans are ongoing.

**Motion to Enjoin Pueblo of Pojoaque Overdiversions.** See 2002-2003 Annual Report. The *Aamodt* settlement agreement contains provisions that would permanently resolve this issue.

**Lower Rio Grande.** *State of New Mexico ex rel. State Engineer v. Elephant Butte Irrigation District*, Third Judicial District Cause No. CV 96-888 (formerly: *Elephant Butte Irrigation District v. State Engineer*, Doña Ana County Cause No. CV-86-848) was originally filed in 1986. After 10 years of litigation over procedural matters involving venue, jurisdiction and indispensable parties, the State Engineer secured funds from the legislature to initiate the hydrographic survey of the Lower Rio Grande.

With sufficient funds in hand, the State Engineer hired a private engineering firm to conduct the hydrographic survey. The hydrographic survey was completed and filed with the court in phases: April 29, 1998 (Nutt-Hockett Basin), May 20, 1999 (Rincon Section), July 20, 2000 (Northern Mesilla Section), and March 28, 2001 (Southern Mesilla Section and Outlying Areas). A separate supplementary hydrographic survey of surface water claims for small domestic and agricultural users, called "flat-raters," was commissioned in 2001. That supplementary survey has been completed and field data is being integrated into the original hydrographic survey on an ongoing basis. At present, the Lower Rio Grande hydrographic survey is comprised of 13, 146 subfiles, the majority of which involve claims of individuals within the Elephant Butte Irrigation District.

From 2001 until the court ordered the implementation of new adjudication procedures in March 2007, the Lower Rio Grande Adjudication Bureau served "offers of judgment" on more than 10,000 defendants for over 6,300 subfiles. Under the old procedures, claimants' objections to the water rights offers tendered by the state were resolved through negotiation, mediation or formal hearing. This approach resulted in a rapid adjudication of water rights in the Lower Rio Grande. Adjudication of subfiles in the Nutt-Hockett Basin is 99 percent complete; adjudication of subfiles in the Rincon Section is 85 percent complete, and there has been significant progress in the adjudication of subfiles in the Northern and Southern Mesilla Sections. Approximately one-third of all the subfiles in the Lower Rio Grande have been adjudicated: As of June 30, 2007, 4, 258 subfile orders have been entered in the adjudication.

In May 2006, the court entered a new procedural order requiring that the state serve process on all claimants not previously joined as defendants in the adjudication. The order ended the practice of serving Offers of Judgment on claimants at the same time they are joined as defendants. However, implementation of the order was delayed because the NM Supreme Court needed to amend a prior order it had entered regarding LRG adjudication procedures. Once the Supreme Court modified its order to conform with the adjudication court's new procedures (in November 2006), the adjudication court revised and requested additional comments on its revisions to, its May 2006 procedural order. The court's "Fourth Amended Order Regarding Stream Adjudication Procedures, Revised March 19, 2007" was entered on March 19, 2007. A separate Case Management Order filed on the same date designates procedures for bringing "stream system issues" before the court.

The March 19, 2007 procedural order requires the state to immediately join all remaining claimants in the LRG adjudication. Process is served by first class mail. The overall deadline to complete joinder of claimants is March 31, 2008 and the state is on schedule to meet that deadline. Newly joined claimants are required to file form answers with the court, stating they claim water rights. Those who do not file answers are subject to default to the findings of the hydrographic survey. Persons who file answers claiming water rights will receive Offers of Judgment from the state in a later series of proceedings. The new order also requires that persons who acquire water rights from parties to the adjudication provide the court with notice of changes of ownership.

Complying with the court's new procedures has slowed the pace of adjudication of water rights in the LRG. On April 9, 2007, the state began serving documents joining, under the new procedures, the approximately 7,750 remaining claimants. Ownership of water rights has changed considerably since the LRG hydrographic survey was completed. For this reason, before documents joining claimants can be mailed, current ownership of the properties associated with water rights claims must be checked by LRG Bureau staff and, when appropriate, updated. This is a time-consuming process. As of June 30, 2007, summons had been served joining 2,575 additional claimants. Service of additional Offers of Judgment and entry of new subfile orders, however, has slowed significantly because resources formerly dedicated to these tasks are now focused on the task of joining claimants and complying with the court's new procedures. Between April 4, 2007 and June 30, 2007, 34 additional subfile orders were entered in the LRG adjudication. This reflects a significantly lower pace of adjudication than occurred under the court's former procedures.

The adjudication Court has announced its intention to commence stream system issue litigation as soon as all remaining claimants are joined as defendants. At present, the number of issues to be litigated, and the amount of time that will be required for such proceedings, is not known. For this reason, it is uncertain when adjudication of water rights in the LRG will return to its former pace.

#### LOWER COLORADO RIVER STREAM SYSTEM

**Zuni River.** The Zuni River adjudication suit, *United States v. A&R Productions, et al.*, U.S. District Court No. 01-CV-0072 BB, was filed by the United States on January 19, 2001, without meaningful prior notice to, or consultation with, the State Engineer or the State of New Mexico. From the outset, the suit suffered from several serious defects, not the least of which was a failure to join the proper parties, and ambiguity as to whether the United States sought quiet title and declaratory judgment relief or a statutory adjudication of water rights in the stream system pursuant to New Mexico law. These problems were compounded by a lack of effort to educate the community regarding the nature and implications of an adjudication prior to joining the defendants. As a result the suit immediately generated a great deal of resistance, misunderstanding, and hostility from area residents.

Due to the dismay and confusion generated by the suit, the court stayed the proceedings to allow the United States and the State of New Mexico to confer regarding cost and resource issues presented by undertaking the adjudication of the Zuni River stream system. The discussions were not fruitful, and the state and the United States independently submitted their own proposals to the court as to how the adjudication should proceed.

In July 2002, the court acted on the recommendations of the special master, and effectively adopted the state's proposal. The Court ordered that the matter remain stayed, that the United States confer with the state to define the geographical scope of the adjudication, that the United States amend the Complaint to clearly plead a general stream system adjudication, and that the state be realigned as a plaintiff when that occurred. The Court also ordered that the United States alone support the cost of the hydrographic survey, and it allowed that erroneously joined defendants who were not claiming water rights could be dismissed by filing a disclaimer. Finally, the court required that

the United States make progress reports to the court every six months, and maintain a public repository of pertinent adjudication documents and a public website containing information on the adjudication.

The state and the United States then consulted with regard to the conduct of the hydrographic survey and reached agreement as to its details. The survey is being conducted by the United States' contractor, at the United States' expense, but to the specifications and under the supervision of the Hydrographic Survey & Mapping Bureau of the Office of the State Engineer. For purposes of the hydrographic survey, the stream system has been divided into ten sub-areas, which are being sequentially surveyed and adjudicated. In February 2003, the state and the United States filed their Joint Progress Report, describing in detail their agreed arrangement for the conduct of the hydrographic survey. In May 2003, the court lifted the stay on the adjudication and ordered that the geographical scope of the adjudication be limited to the boundaries of the surface drainage of the Zuni River. At that time, the court also directed the United States to file its Amended Complaint, which was done in August 2003. The state was then realigned as a plaintiff.

In June 2003, the special master entered an Order requiring all water rights claimants in the Zuni River stream system to update their files with the Water Resources Allocation Program of the Office of the State Engineer (WRAP). WRAP conducted a series of field offices in the Zuni area so that water rights claimants could update their water rights files. The court's order generated significant attendance at the field offices and resulted in the update, or creation, of hundreds of water rights files. That information was integrated into the State Engineer's electronic WATERS database and provided the foundation on which the hydrographic survey was built.

Since that time, the United States' hydrographic survey contractor has completed the hydrographic survey for all non-Indian claimants in the ten sub-areas. It has conferred with the state on those surveys, and filed the survey reports and maps with the court. The United States has also prepared, and the state has reviewed, all the proposed consent orders for these sub-areas, and the United States has served them on the claimants. Consultation between claimants contesting the offers contained in their consent orders and the state and the United States are taking place on a regular basis in an effort to settle disputes without Court intervention.

On May 11, 2007, the United States filed its Subproceeding Complaint and Statement of Claims for Water Rights on Behalf of, and For the Benefit of, the Zuni Indian Tribe and Zuni Allottees. Subsequently, the Zuni Tribe timely filed its own Supplemental Subproceeding Complaint. A Planning and Scheduling Conference has been set to determine dates for filing answers to the subproceeding complaints, initial disclosures and other tasks.

The remainder of the Federal and Indian claims, including those of the Ramah Navajo, are scheduled to be filed before the end of 2008.

#### UPPER COLORADO RIVER STREAM SYSTEM

San Juan River. *State of New Mexico ex rel. State Engineer v. United States, et al.*, San Juan County Cause No.

## Appendix B Status of Hydrographic Surveys

### RIO GRANDE STREAM SYSTEM

Rio Chama. In 1948, the lawsuit that became the Rio Chama adjudication was initiated. In September 1951, the court entered an order directing the State Engineer to furnish a hydrographic survey for all water rights of the stream system as well as the community ditches named in that complaint. The Office of the State Engineer completed the mapping and report for the Rio Puerco de Chama during the 1952-53 period. In August 1957, State Engineer S.E. Reynolds directed his staff to prepare a hydrographic survey for all the water rights of the Rio Chama stream system below El Vado Reservoir. For survey and adjudication purposes, the Chama stream system was divided into eight sub-basins.

In 1995, the United States District Court for New Mexico ordered the State Engineer to complete the hydrographic survey of the remainder of the Rio Chama stream system within the next six years. During FY 2000, the Hydrographic Survey & Mapping (HS&M) Bureau completed, published and filed with the court the first of nine reports in the three sections that remained unsurveyed. By the end of FY 2006, the entire Chama stream system had been surveyed. The HS&M currently provides support to the Northern New Mexico Adjudication Bureau as the adjudication proceeds.

Rio San Jose. In 1984, the Cibola County District Court ordered the State Engineer to conduct a hydrographic survey of the surface and ground water rights in the Rio San Jose stream system, which encompasses approximately 3,700 square miles. In October 2001, the federal government, through a private contractor, completed the hydrographic survey. The survey utilized 1981 aerial photography and field work. The HS&M Bureau has reviewed the hydrographic survey and maps for the Acoma and Laguna Pueblos and has examined past water use on Pueblo lands by reviewing four sets of historical aerial photography (1935, 1971, 1991 and 1997). The matter is now at the negotiation stage.

Rio Pueblo de Taos/Rio Hondo/Rio Grande del Rancho. Three sections of this survey were completed and filed with the court in 1969. In 2002, however, the court allowed claimants to file claims to allegedly omitted surface water rights. More than 100 such claims were filed. The HS&M Bureau completed the field checking and mapping of these claims. The HS&M Bureau is also working in conjunction with the court's Data Manager to provide technical support for the errors and omissions process being conducted by the court.

Lower Rio Grande. In 2000, the initial survey was completed by a contractor under the direction of the HS&M Bureau. The Supplemental Survey that was completed in December 2001 determined the extent of the water rights of approximately 6,500 small domestic and agricultural water rights within the Elephant Butte Irrigation District which had been omitted from the original survey. The Supplemental Survey is being fully integrated into the adjudication process on an on-going basis.

### PECOS RIVER

The hydrographic surveys were initiated as a result of private adjudication suits filed in the 5th Judicial District Court in 1956 and 1958. The suits were then consolidated and amended to become the general adjudication of all water rights within the Pecos River stream system.

Rio Hondo. The hydrographic survey of this section has been completed as has the adjudication. The parties are awaiting a partial final decree for this section.

Rio Peñasco. The survey will encompass approximately 5,500 acres of land irrigated by surface water, groundwater, and surface water supplemented by groundwater. The Rio Peñasco drainage area encompasses about 1,080 square miles and extends from the Pecos River on the east to Cloudcroft on the west, a distance of approximately 95 miles. A preliminary survey, consisting of map sheets for the location of irrigation only, has been completed to date. A final hydrographic survey report has not been compiled. High resolution aerial imagery was acquired in 2004,

D-1116-CV-7500184, is a suit to adjudicate all water rights in the San Juan River stream system. The non-Indian, non-federal water rights of the San Juan River Stream System were hydrographically surveyed in the late 1930s and adjudicated by the Echo Ditch Decree in 1948. The state was not a party to that adjudication, however, and no Indian or federal water rights were adjudicated in that decree. The State Engineer conducted a partial survey in the early 1980s, and the Hydrographic Survey & Mapping Bureau is in the process of updating the survey using all available current and historical data, including infrared aerial digital imagery dating from 2003.

In response to an Order to Show Cause issued by the court in January 2005, the state successfully argued that the San Juan Adjudication should not be dismissed for failure to prosecute. The Court appointed an attorney advisory committee to assist the state in drafting a scheduling order for the adjudication of water rights in the La Plata Section and an overall case management order. In April 2006, the court entered a scheduling order to govern the adjudication of water rights in the La Plata Section. The state joined approximately 600 parties in that section on April 27, 2006, and commenced serving each of these parties via certified mail with a "service package," which includes, among other things, various forms for filing claims. Subfile adjudication on the first four ditches (involving about 127 parties) commenced in August 2006. Consent orders have been entered in slightly more than half of the subfiles for the first four ditches. The state is working diligently to complete necessary fieldwork on the remaining subfiles. The state anticipates sending proposed consent orders to the next two ditches of the La Plata Section in October 2007.

Over the past few years, the state and the Commissioner of Public Lands litigated the legal basis for the Commissioner's claim for federal reserved water rights on state trust land. Ultimately, the adjudication court granted summary judgment in favor of the state, finding that the Commissioner lacked a valid legal basis for claiming federal reserved water rights appurtenant to state trust lands. The Commissioner appealed the district court's decision on April 13, 2007 and filed a Docketing Statement in the appeal on May 17, 2007. The state will continue to assert before the court of Appeals that the Commissioner has no water rights arising under federal law.

The state and the Navajo Nation signed the Navajo Settlement agreement in 2005 to resolve the Navajo Nation's water rights in the San Juan basin. The United States cannot sign the agreement unless and until Congress first enacts legislation approving the agreement. In April 2007, Senators Bingaman and Domenici introduced S. 1171, and Representative Udall introduced HR 1970. These bills would approve the settlement and authorize federal funding to implement it. Senate and House committees held hearings on these bills in the spring of 2007. Once the bill is signed into law and the United States executes the Navajo Settlement agreement, the state anticipates that a proposed order adjudicating the Navajo Nation's water rights will be filed with the court and, after notice is provided, an expedited *inter se* proceeding will be conducted to allow all other water right claimants in the San Juan River stream system the opportunity to raise objections to the proposed adjudication of the Navajo Nation's rights. The state anticipates that this process will require several years to complete.

which covers the Mescalero Apache Reservation area in preparation for future adjudication work.

Roswell Artesian Underground Water Basin. Survey and adjudication have been completed. In 1967, the New Mexico Supreme Court held in *State ex rel. Reynolds v. Alman*, 78 N.M. 1, that, simply stated, the owner of the adjudicated water rights had to be afforded the opportunity to assert priority date claims under the doctrine first enunciated in *Templeton v. Pecos Valley Artesian Conservancy District*, 65 N.M. 59 (1958).

Carlsbad Irrigation District. This survey involves approximately 800 subfiles for irrigation water rights. The survey has been divided into four separate geographic areas within CID. Township 24S comprises Section One, Township 23S comprises Section Two, Township 22S comprises Section Three and Township 21S comprises Section Four. Sections One, Two and Four surveys were completed and filed with the court and the water rights completely adjudicated. Section Three survey has been completed, filed with the court and the water rights are scheduled to be adjudicated in 2008.

Carlsbad Underground Water Basin. This survey of all water rights within the Carlsbad Underground Water Basin was initiated in 2007 and will take approximately two years to complete.

Black River. The Black River is a tributary of the Pecos River in southern Eddy County. Irrigated cropland in the Black River drainage includes approximately 2400 acres reported in the Carlsbad Irrigation District survey and 2500 acres outside the district. An outside contractor for the State Engineer prepared initial drafts of the hydrographic survey and maps for the water rights not within the CID. The technical staff in the Pecos Adjudication Bureau will perform quality assurance and quality control checks on the materials produced by the outside contractor, and will complete the final version of the hydrographic survey report as resources are available.

Gallinas River. The Gallinas River arises just east of Santa Fe and runs through the City of Las Vegas, joining the Pecos River above Santa Rosa. The Gallinas River is the main source of water for both the City of Las Vegas and local irrigators. The water rights are compiled in a five volume hydrosurvey report published in 1991. Adjudication of the water rights identified in Volume One of the survey is currently under way. Adjudication of the water rights identified in Volume Two was completed in the mid-1990s. Procedures for adjudication of subfiles in Volumes Three and Four of the survey is currently the subject of a legal controversy before the adjudication judge. Approximately 95 percent of the subfile claimants from Volume V were successfully served prior to the procedural order controversy.

### SAN JUAN RIVER

The non-Indian, non-federal surface water rights of the San Juan River Stream System were compiled in a hydrographic survey in the 1930s and adjudicated by the Echo Ditch Decree in 1948. The state was not a party to that adjudication, however, and no Indian or federal water rights, or any groundwater rights, were adjudicated in the Echo Ditch Decree. The State Engineer initiated a new survey in the early 1980s after the state filed an adjudication suit in 1975 to include all federal and tribal water rights, groundwater rights, and the water rights adjudicated in the Echo Ditch Decree. The HS&M Bureau is in the process of completing the survey using all available current and historical data, including infrared aerial imagery dating from 2003. The state is using the data to analyze the current ownership and status of non-Indian, non-federal water rights to be adjudicated by the court. The state is currently meeting with water users and performing field inspections on individual subfiles for the La Plata River.

### ZUNI RIVER

The United States commenced this adjudication in 2001 in federal district court, and was ordered to conduct the hydrographic survey of all water rights subject to review and approval by the HS&M Bureau. All 8 sections of the Zuni

River stream system have been surveyed, reviewed and approved by the HS&M Bureau, and filed with the court.

This hydrographic survey has provided an opportunity to implement new procedures designed to promote claimant involvement in the process from the initial steps. The HS&M Bureau has worked with the Water Resource Allocation Program and the federal government's hydrographic survey contractor to hold field offices to work with claimants to compile and update water rights information in the stream system and to educate the public about the hydrographic survey and adjudication process. Results from this version of the "Chama" procedure are encouraging, as there has been significant participation from claimants.

#### ANIMAS VALLEY

A complaint was filed in 2004 for the adjudication of the water rights in the Animas Valley Ground Water Basin. The court ordered the state to conduct a hydrographic survey of all water rights. The 2005 Legislature appropriated funds to initiate a hydrographic survey. The Animas Valley Underground Water Basin, declared on May 5, 1948 and amended on February 23, 1956 and September 23, 2005, covers a total of 1,063 square miles. It is an underground

water basin, with no surface streams, but numerous flood flows during the rainy season.

The area was surveyed in 1948 and a hydrographic survey was generated. The report found approximately 15,000 acres of land irrigated from 155 wells. The survey was revisited in the early 1950's finding approximately the same amount of land irrigated by 197 wells. Thereafter, a series of maps was produced in 1980, but no report was found.

These various data and maps were scanned and rectified. A proto-survey database was created containing historical maps, aerial coverage, hydrographic surveys, soils and vegetation maps, etc. The HS&M Bureau then officially started the Hydrographic Survey of the Animas Valley on December 22, 2005. Work was initiated at the same time to locate irrigated areas and wells. The OSE received a preliminary set of aerial digital imagery of the Animas Valley from a contractor in March 2006. All these data are being analyzed to produce a preliminary draft of the irrigated acreage, all well locations and abstracts of WATERS database by the end of 2006. The first draft of the hydrographic survey report is projected to be ready by the end of 2007.

## Appendix C

### State Engineer Decisions Appealed in District Court

Certain hearing matters, some noted in the 2006-2007 annual report, are on appeal, as follows:

*City of Alamogordo et al v. State Engineer* – No. CV-2005-019 (Consolidated), Twelfth Judicial District Court. An appeal of the State Engineer's decision of December 29, 2004, partially approving, subject to conditions, the City of Alamogordo's applications to drill 10 wells for diversion and desalination of groundwater of the Tularosa Underground Water Basin for use for municipal, industrial and commercial purposes. The City and two of the protestants to the application appealed the State Engineer's decision. The State Engineer and the City recently reached a settlement agreement on the issues between them on appeal. A hearing is still pending as to the Protestants' issues on appeal. *Lion's Gate Water v. State Engineer*, No. D1314-CV-06-765, Thirteenth Judicial District Court. This case involves an appeal from the State Engineer's rejection of an application by Lion's Gate Water ("LGW") to appropriate all of the water that evaporates annually from Elephant Butte, Cochiti and Caballo reservoirs, amounting to approximately 373,000 acre feet of water per year. The State Engineer initially rejected the application because he determined that there was no unappropriated water in the Rio Grande stream system and LGW requested a hearing on the rejection. While LGW's application never specifically stated the method it intended to use to capture or divert the evaporative water it sought to appropriate, it revealed through discovery in the case that one method under consideration was to remove the Elephant Butte dam and drain the reservoir by injecting the water into unspecified underground reservoirs, from which LGW would control and effect the delivery of water to all users in New Mexico's Mesilla Valley and Rio Grande Compact releases of water. The State Engineer granted a motion for summary judgment filed by the OSE's Water Rights Division, finding no undisputed material fact that all of the water in the Rio Grande stream system was fully appropriated. LGW appealed the State Engineer's decision to the District Court in Valencia County, but the appeal was dismissed on the ground of improper venue. LGW filed another Notice of Appeal in Sandoval County, where a summary judgment motion filed by the State Engineer is pending hearing has recently filed an appeal of this decision in district court.

*Roy D. Mercer LLC v. D'Antonio*, No. D-1314-CV-2006-00048, Thirteenth Judicial District Court. The State Engineer approved a protested application for supplemental diversion of groundwater subject to conditions. The Applicant appeals the conditions limiting his permit. The Appellant requested, and obtained, an extension of time to file his Statement of Appellate Issues. Settlement negotiations have been taking place between the OSE and the appellant. *Village of Ruidoso v. State Engineer*, No. CV-06-172, Twelfth Judicial District Court. The State Engineer approved,

subject to conditions, the Village's combined applications. The Village is dissatisfied with certain portions of the State Engineer's order (requiring metering and gauging of diversions) and has filed an appeal in the Twelfth Judicial District Court. Settlement negotiations are underway.

*Montgomery v. Lomas Altos, Inc.*, No. D-1329-CV-010790, Thirteenth Judicial District Court. The New Mexico Supreme Court remanded this case to the District Court for a trial on impairment issues relating to the applications. A scheduling order has been entered and the trial is set to begin June 9, 2008.

*Chupadero Water-Sewer Co. v. New Mexico State Engineer and Santa Fe Ski Co.*, D-101-CV-06-2295, First Judicial District Court. The State Engineer approved, subject to conditions, Santa Fe Ski Company's application to divert water for snowmaking purposes and granted it a return flow credit as part of the permit. Chupadero filed an appeal of the State Engineer's decision, contending that the grant of return flow credit was improperly made. A trial of the appeal is set to begin on November 17, 2007.

*Tri-State v. D'Antonio*, see insert page in the main section of this report.

*Bounds v. State of New Mexico and John D'Antonio*, D-608-CV-2006-00166, Sixth Judicial District Court. Suit challenging the constitutionality of Section 72-12-1.1 and claiming that the State Engineer's lack of discretion in the issuance of domestic well permits creates a "taking" as those wells impair other water users. The OSE filed two motions to dismiss (on two different grounds) and a motion to stay the case pending the outcome of the Smith and Stennis cases (see Appendix D). The case was stayed and is expected to resume once the Supreme Court has handed its opinions in the aforementioned cases.

*Board of County Commissioners of County of Rio Arriba v. D'Antonio*, D-0101-CV-2006-02087, First Judicial District Court. Challenge of domestic wells rules and regulations promulgated by the State Engineer in August 2006. This case is stayed pending settlement negotiations.

*Vista Redonda Water & Property Owners Association v. D'Antonio*, D-0101-CV-2006-2160, First Judicial District Court. Challenge of domestic wells rules and regulations promulgated by the State Engineer in August 2006. This case is stayed pending settlement negotiations.

*Rancho Viejo v. State Engineer*, No. 2007-02466. Petition for Writ of Mandamus following an IPRA request. The court ruled that the OSE needed to produce only two of the 10 documents withheld from the IPRA request response.

## Appendix D

### Decisions in the Court of Appeals and New Mexico Supreme Court

#### NEW MEXICO COURT OF APPEALS

*Carangelo v. State Engineer*, No. 26,757. Challenge of permit granted by the State Engineer. Appeal of District Court decision granting State Engineer and Albuquerque Bernalillo County Water Utility Authority's motions for partial summary judgment and denying the Appellants' motion for summary judgment, concerning the validity of a pre-1907 declared surface water right. Briefing was completed in the summer of 2007 and oral argument is pending.

*Rosette v. United States Department of Interior*, No. 26,013. Rosette appealed the dismissal without prejudice of the suit it filed for adjudication of the Animas basin and the district court's ruling ordering the state to file an adjudication suit pursuant to NMSA 1978, § 72-4-17, which he has now done. In January 2007, the Court of Appeals issued its opinion ruling that geothermal resource is not defined as a component of water and therefore affirming the grant of summary judgment to the United States. Certiorari was sought, but denied. 2007-NMCA-136, 169 P.3d 704 (2007), cert. denied 156 P.3d 39 (2007).

*State ex rel. OSE v. Lewis* (CID Project Settlement appeal), No. 25,522. In November 2006, the court issued its opinion upholding the partial final decree, which incorporates the settlement agreement. 2007-NMCA-008, 141 N.M. 1, 150 P.3d 375 (Ct. App. 2006). The Court of Appeals' decision was not appealed to the Supreme Court.

*State Engineer v. Seledon Garcia*, No. 27,681. The State Engineer is appealing the district court decision to remand a case brought by the State Engineer for the enforcement of a compliance order. The district court found that the State Engineer should have held a hearing on the compliance order even though Garcia had failed to respond to a motion for summary judgment filed against him in the administrative hearing, resulting in the granting of the motion in support of the compliance order, and then failed to appeal the State Engineer's decision granting the summary judgment motion to the District Court. The Court of Appeals has proposed summary reversal of the district court's decision.

#### NEW MEXICO SUPREME COURT DECISIONS

*D'Antonio v. San Lorenzo Community Ditch Association*, No. 30,262. The Office of the State Engineer filed this appeal when the adjudication court declined to relinquish jurisdiction over administration of water rights in the fully adjudicated Mimbres basin. The case was fully briefed before the Court of Appeals, which then decided to transfer it to the Supreme Court without ruling. Oral argument took place before the New Mexico Supreme Court in the summer of 2007 and the court dismissed the suit with prejudice for lack of justiciable controversy and remanded to

the District Court for further proceedings.

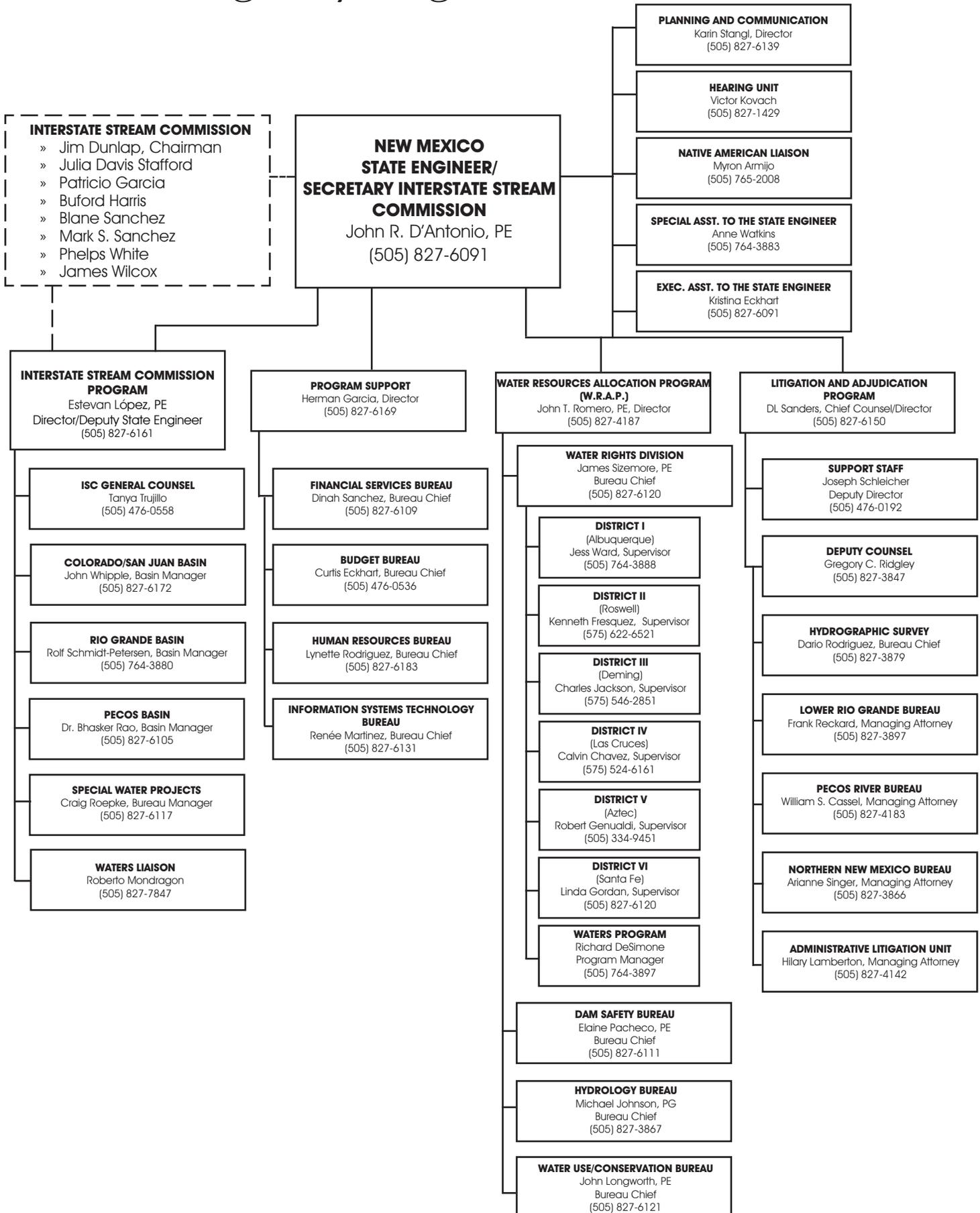
*Montgomery v. Lomas Altos, Inc.*, 2007-NMSC-002, 141 N.M. 21, 150 P.3d 971 (2006). Review on writ of certiorari of the Court of Appeals' decision in the appeal from the State Engineer's decision in Hearing Unit No. 99-058 and 99-068 Consolidated, OSE File Nos. 03713-C and 03713-D into RG-52013; 04595 into RG-52013 and 04600-B into RG-71805. The New Mexico Supreme Court affirmed the Court of Appeals' decision that the transfer of surface water rights to offset the effects of a new groundwater diversion on the Rio Grande does not constitute a new appropriation of water in the Rio Grande basin and that a *de minimus* effect of the applications on the yield of springs in the area of the well pumping does not constitute impairment as a matter of law. The New Mexico Supreme Court reversed the Court of Appeals on the issue of impairment analysis, holding that the State Engineer had to use the full, declared quantities of water for claimed water rights at the move-to location in his impairment analysis, or "extinguish" the water rights claims that were overstated in pertinent declarations or no longer in use. The case was remanded to the district court for trial on impairment issues.

*Smith v. City of Santa Fe*, No. 29,712. Suit against the City of Santa Fe regarding its ordinance governing the drilling of domestic wells within city limits. The State Engineer is amicus for the city. Oral argument took place in June 2006. As of the end of FY'07, the parties were still awaiting the Court's decision.

*Stennis v. City of Santa Fe*, No. 29,997. Suit against the City of Santa Fe regarding its ordinance governing the drilling of domestic wells within city limits. The State Engineer is amicus for the city. Briefing and oral argument have been completed and the parties are awaiting the Court's decision.

*Walker v. United States*, No. 29,544. Suit involving the question of whether grazing rights on federal lands can be denied by the United States if the former lessee had established a stockwatering right. The theory is that grazing rights are inherent to, or an element of, a stockwatering right. The State Engineer is amicus for the United States. On June 21, 2007, the Court issued its opinion ruling that grazing rights are not an element of a water right. The United States Court of Claims subsequently ruled in favor of the United States, based on the decision by the New Mexico Supreme Court.

# Agency Organizational Chart





New Mexico  
Office of the State Engineer  
Interstate Stream Commission  
2006-2007 Annual Report