

Office of the State Engineer/Interstate Stream Commission



Review and Proposed Update New Mexico State Water Plan



Creek in southwestern New Mexico

June 2008

This first *New Mexico State Water Plan Review and Proposed Update* is the result of a collaborative exercise conducted to engage staff from the Office of the State Engineer, Interstate Stream Commission, and other state agencies with water-related responsibilities, as well as public stakeholders, in reviewing the 2003 *New Mexico State Water Plan*. The names and affiliations of those involved in the discussions leading to the development of this assessment and proposed approach to updating the state plan are listed below.

The Interstate Stream Commission's Planning and Communication Division conducted and produced this review and appreciates the involvement of all in this endeavor.

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(formerly the "ad hoc committee")

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The New Mexico Office of the State Engineer and Interstate Stream Commission are required to undertake a review of the New Mexico State Water Plan (SWP) every five years and to subsequently update the plan as needed (NMSA72-14-3.1). This document summarizes the review and presents a proposed work program for conducting the update.

Why Prepare a State Water Plan?

In passing the State Water Planning authorizing legislation (NMSA 72-14-3.1), the New Mexico Legislature recognized the importance of water planning as a strategic management tool. Benefits of developing a comprehensive state water plan include:

- Planning is much less expensive than reacting to drought, water shortages, infrastructure failures, and other water issues as crises.
- An avenue is provided to obtain constituent input on ongoing efforts of the New Mexico Office of the State Engineer and the New Mexico Interstate Stream Commission to develop and implement water management policies that affect the citizens of New Mexico.
- Planning provides an avenue for integrating New Mexico Environment Department water quality protection objectives with Office of the State Engineer/Interstate Stream Commission water management objectives.
- An opportunity to educate is provided, creating an environment for collaboration, which can prevent expensive litigation and promote regional cooperation.
- Water planning provides a foundation for water management that protects water availability and quality, ensures the most efficient use of water, and directs funding to water infrastructure improvements of greatest need.

What is the State Water Plan Review and Proposed Update?

The review answers the following questions:

- How well did the 2003 plan meet legislative objectives?
- What was missing in the first plan, and how can it be improved?

- What progress has been made since 2003?
- What conditions have changed since the first plan?

The proposed update highlights future plans for the State Water Plan:

- Approach for the update
- Prioritization of areas to update
- Public involvement

How Well Did the 2003 Plan Meet Legislative Objectives?

The 2003 State Water Plan was the first such plan ever produced in the State of New Mexico and was created under the constraints of an ambitious schedule. Despite the lack of an established template and the short time frame, the plan met the objectives set out in the statute that mandated the plan. Some of the major strengths of the State Water Plan included:

- Establishing a set of goals for the state
- Bringing together a considerable amount of data
- Conducting an extensive public involvement program
- Serving as an excellent tool for educating the public about water issues
- Providing a framework for implementation of key actions required to meet the goals

What Was Missing in the 2003 Plan, and How Can It Be Improved?

While the 2003 State Water Plan was a good beginning, future updates could add to or improve certain portions of it including:

- Technical studies that address water supplies, population projections, water demand, the

connection between groundwater and surface water, water conservation, drought management planning, brackish water and desalination, water availability and land use planning, and riparian restoration for protection of water supply and water quality

- Greater participation from relevant state and federal agencies as well as tribes and pueblos
- Identification of additional authorities and responsibilities of relevant state agencies
- Increased emphasis on infrastructure needs, priorities, and costs
- More emphasis on water quality issues, opportunities and challenges
- Clarification of responsibilities and timelines for implementing the plan

- Strengthened connections between the State Water Plan and Interstate Stream Commission regional water plans
- Increased emphasis on connections between water and land use management
- More emphasis on promotion of water markets and studies of transfer effects
- More emphasis on ecosystem and habitat protection and restoration issues, including relationship of fish and wildlife management to water management
- More emphasis on further improvement of the adjudication process
- Assessment of impacts of reservoir storage and management

What Progress Has Been Made Since 2003?

Since 2003, many state and local entities within New Mexico have made considerable progress in meeting the goals outlined in the State Water Plan, although the entities acknowledge that there is still work to be done on implementation. Some of the highlights of progress include:

Ensuring Safe and Adequate Drinking Water and Promoting Other Water Resource Priorities

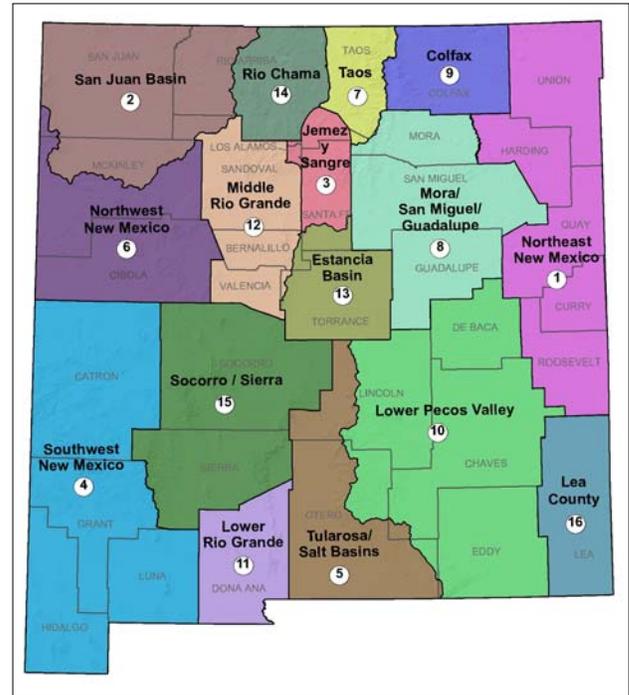
- The Water Trust Fund became a permanent fund by constitutional amendment in 2006 and receives continuing funding. A water project's inclusion in a regional water plan is a consideration for funding.
- Governor Bill Richardson established a Water Cabinet to coordinate funding of all water-related state agencies.
- The State Engineer's statutory authority to issue changes of ownership to protect senior water rights and enforce the state's water laws was clarified.
- A Uniform Funding Application was developed for more efficient use of water-related funds.
- New Mexico communities are beginning to use San Juan-Chama water for drinking water supply through direct diversions from the Rio Grande.



Planning for drought is critical.

Water Planning

- Regional water plans were accepted by the Interstate Stream Commission for 15 of 16 regions (acceptance of the last water plan is anticipated in the summer of 2008).
- Several regions have begun updating their plans to address changed conditions.
- Integration of regional efforts within the Middle Rio Grande basin was initiated.
- Governor Richardson issued an Executive Order forming the Water Cabinet and directing NMED to create a Division of Water and Waste Water Infrastructure Development. These two groups have been working to align state water policy and create consistency in funding.
- House Joint Memorial 86 requires the Water Trust Board to consider certain criteria when providing funding.
- The Drought Task Force continues to produce monthly Drought Status Reports as well as drought plans and recommendations.



Regional water planning has occurred in 16 regions throughout New Mexico.

Adjudications and Settlement of Water Rights and Water-Related Disputes

- Significant progress was made toward implementing the Pecos River settlement.
- A Seven States (Colorado River Basin) Agreement was signed for coordinated operation of Lakes Mead and Powell and Lower Basin shortage sharing.
- A settlement was reached concerning Eagle Nest Reservoir operations.
- Indian water rights settlement agreements were signed with the Navajo Nation, the Pueblos of Nambe, Pojoaque, Tesuque, and San Ildefonso, and the Pueblo of Taos.
- The state legislature established the Indian water rights settlement fund and appropriated initial amounts toward pending settlements.
- The New Mexico Supreme Court adopted new rules of procedure for water rights adjudications.
- The Supreme Court established water courts in every judicial district in New Mexico.
- The Supreme Court rejected expanding municipalities' water rights under the "Pueblo

rights doctrine" as incompatible with New Mexico water law.

- New Mexico and Texas water districts reached a settlement related to Lower Rio Grande project operations.

Ensuring Compliance with Interstate Compacts and Protecting Existing Water Rights

- The Strategic Water Reserve was established and funded.
- State action reduced the immediate threat of litigation with Texas over the waters of the Rio Grande.
- The State Engineer initiated Active Water Resource Management (AWRM) in seven priority basins around the state.
- To implement AWRM statewide, 16 water master positions were added (for a total of 26).
- To monitor water diversions, a metering order was issued and successfully implemented in the Lower Rio Grande (as part of AWRM) and is projected for other key areas of the state.

- The State Engineer has jurisdiction over underground water basins statewide.
- Domestic Well Rules and Regulations were adopted.
- There is greater emphasis on conjunctive management of surface water sources and hydrologically connected groundwater basins, including ensuring that depletions to surface water sources caused by groundwater pumping are offset.
- The State Engineer's authority over surface water impoundments was strengthened.



Local governments are encouraging their citizens to conserve water through xeriscaping and other measures.

Protecting Riparian and Aquatic Ecosystems Including Threatened and Endangered Species and Habitats

- One refugium was built on the Rio Grande at the Albuquerque Biopark, and the silvery minnow population is better protected.
 - Another silvery minnow refugium, funded by the Water Trust Board and the Interstate Stream Commission, is scheduled for completion in the spring of 2008.
- The Interstate Stream Commission constructed restoration projects to increase habitat for endangered fish.
 - Legislative funding was appropriated in 2007 and 2008 for river ecosystem restoration projects.
 - The Department of Agriculture completed the New Mexico Non-Native Phreatophyte/Watershed Management Plan.
 - The Energy, Minerals, and Natural Resources Department completed the New Mexico Forest and Watershed Health Plan, and a Forest and Watershed Health Office was established to work on implementation.
 - The Department of Game and Fish completed the Comprehensive Wildlife Conservation Strategy and is finalizing the New Mexico Aquatic Invasive Species Management Plan.
 - The Interstate Stream Commission and other agencies continued to be strong partners in the Middle Rio Grande Endangered Species Collaborative Program and the San Juan Recovery Implementation Program.
 - The U.S. Army Corps of Engineers and New Mexico State Parks Division have completed a partnership project in Rio Grande Nature Center State Park to increase habitat for the silvery minnow and aid in breeding success.
 - State Parks Division has begun several wetland restoration projects along the Pecos River and the Rio Grande to expand habitat.
 - State Parks Division is positioning itself to assist in habitat acquisition, protection, and restoration along the Lower Rio Grande.

Water Conservation and Infrastructure

- There was increased emphasis on water conservation in many parts of the state, particularly within municipalities.
- The Office of the State Engineer has been working with municipalities to conduct water system audits and develop daily per capita use protocols.
- The conservation education and outreach program continues to provide indoor and outdoor water use and conservation awareness throughout the state.

- The State Engineer adopted new rules and regulations to ensure the safety of dams, which are critical infrastructure for New Mexico.
- The Interstate Stream Commission provided continued funding and project management for acéquia rehabilitation projects.
- The Interstate Stream Commission funded improved efficiency of surface water delivery systems.
- The U.S. Bureau of Reclamation and the Interstate Stream Commission constructed and maintained the Elephant Butte pilot channel.
- Federal funds were awarded to a desalinization research facility in the Tularosa Basin.
- Contracting entities are developing infrastructure to utilize San Juan-Chama water.



Albuquerque's newly constructed diversion dam will allow the city to tap its San Juan-Chama water for municipal drinking water supply use.

What Conditions Have Changed Since 2003?

Changes affecting the state's management of water resources that have occurred since 2003 include:

- Public awareness and concern over global climate change has grown:
 - The Governor issued an executive order regarding climate change.
 - The Office of the State Engineer issued a report regarding how climate change may impact water availability (available on the Governor's Drought Task Force web site <<http://www.nmdrought.state.nm.us>>).
 - The Office of the State Engineer and New Mexico First conducted statewide public workshops on climate change and issued a report.
 - Public concern regarding the likelihood and consequences of long-term drought has heightened.
- The state's population surpassed two million people, and growth is expected to continue.
- Unregulated development of deep saline aquifers began, with little understanding of impacts on existing potable water supplies.
- Private parties are proposing significant new inter-basin transfers of water through conveyance facilities such as pipelines.
- Numerous parties initiated efforts to acquire water for environmental stream flows.
- Infrastructure continued to age and deteriorate with time, requiring increased funding.
- Federal and state listings of aquatic species have increased.
- Resurgence of uranium mining is taking place.
- Interest in developing treatments for reuse of produced water associated with oil and gas development has increased.
- Legal changes affecting water management have occurred through statutes or court decisions, including acéquia oversight of water transfers, acéquia water banking, and conservation.
- Governor Richardson established a Water Innovation Fund for advanced water quality and water conservation technologies.



Excavation of the Elephant Butte pilot channel reconnected the Rio Grande with the lowered reservoir pool following several consecutive years of drought.

Approach to the Update

The update of the State Water Plan will be conducted over a period of several years. The most important policy areas will be updated first, depending on funding availability. The update will be a document that is usable, technically accurate, and published in a format that is easy to understand. It will better define the role of and link together the regional water plans. Coordination with other state agencies and outside entities will be strengthened. Creation of the Water Cabinet by Governor Richardson's Executive Order provides an institutional forum to address the State Water Plan. Public involvement will continue to be an important part of state water planning and its management of water resources.

Prioritization of Areas to Update

The following are priority areas (in no particular order) for the update (some are subject to funding availability):

- Place greater emphasis on conservation.
- Recognize impacts of the energy/water nexus.
- Report on progress in implementation of Active Water Resource Management.
- Report on progress in licensing or adjudication of water rights.

- Define what is meant by water budgets, integrate water budget data from completed regional plans, and revise and improve water budgets.
 - Conduct technical studies to improve the understanding of water supply and demand.
 - Develop a pilot program to define consistent terms and standards for water budgets.
- Place more emphasis on critical infrastructure needs, identifying the needs and costs and providing the information necessary to prioritize them, including economic analysis.
- Report on progress toward implementing the various pending water settlements statewide.
- Include a more detailed State Water Plan implementation schedule that incorporates responsibilities, schedules, and costs.
- Address the impact of climate change on water availability, water management, and other state resources.
- Place greater emphasis on water quality.

Public Involvement for the Update

The public involvement plan includes meetings with relevant state agencies, key stakeholder groups, and regional water planning groups in addition to public outreach and information gathering. The purpose of these meetings will be both to provide information and to obtain input on changed conditions and other matters.

State agencies that will be involved in the State Water Plan update include Governor Bill Richardson's water policy advisors and the state Water Cabinet:

- Office of the State Engineer
- Interstate Stream Commission
- Environment Department
- Department of Agriculture
- Department of Game and Fish
- Energy, Minerals and Natural Resources Department
- Department of Finance and Administration
- New Mexico Finance Authority

Representative stakeholder groups to participate in the update include but are not limited to:

- Water Trust Board
- Water Quality Control Commission
- New Mexico Drought Task Force
- State-Tribal Water Institute
- New Mexico Acéquia Commission
- Regional Water Planning Advisory Council
- Governor's Blue Ribbon Task Force on Water
- Numerous professional, citizen, agricultural, and planning groups representing various water interests in New Mexico



Low lake levels are among the many reminders of the importance of water planning to New Mexico's future prosperity.

Conclusion

Funding for the State Water Plan update will help protect New Mexico's future interstate water allocation through responsible water management. The State Water Planning effort provides a foundation for effective water management that protects water availability and quality, ensures the most efficient use of water, encourages collaboration instead of litigation, and directs funding to water infrastructure improvements of greatest need.



Planning for wise water resource management benefits New Mexicans throughout the state.