

New Mexico's 16 Regional Water Plans: One Size Does Not Fit All

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Angela is senior water planner at the New Mexico Interstate Stream Commission (ISC) of the Office of the State Engineer. She manages and coordinates the state and regional water planning programs. The New Mexico State Legislature recognizes the need for current and future water planning, and has given the Interstate Stream Commission the responsibility for overseeing the process. The ISC provides grants and technical assistance to the state's 16 water-planning regions and currently is updating the 2003 New Mexico State Water Plan. A native New Mexican, Angela received a BA degree in political science from the University of New Mexico. She earned an MS in community and regional planning at the University of Texas at Austin. A planner for 12 years, she has worked in other planning positions for the City of Santa Fe and City of Austin, Texas, including in the private sector. She has been working in water-related planning issues for the past nine years.



Gretel has worked for the New Mexico Interstate Stream Commission since June 2007. Her career has focused on natural resource management and stewardship through long-term conservation planning. Gretel's graduate studies and professional work experience include a variety of projects focused on land use and open space planning and conservation, watershed restoration and management, and natural resource management and sustainability. She has worked for both government agencies and private organizations on natural resource and environmental planning projects. Gretel earned a master's degree in natural resource planning.

Editor's note: The following paper represents an unedited version of the speaker's remarks at the conference.

Angela Bordegary

Good morning. How nice it is to be here today to talk about our State Water Plan. I want to thank the wisdom of the organizers involved in the State Water Plan. As Karl Wood said, we are here to give you the full picture from the Office of the State Engineer and the Interstate Stream Commission's water plan activities.

As many of you know, we have 16 regional water plans and a State Water Plan. The regional planning program came first in 1987. The State Water Plan was first required by the New Mexico legislature in 2003 and completed that same year by the New Mexico Interstate Stream Commission (ISC) with the Office of the State Engineer (OSE). The ISC oversees both programs because state law requires integration of the regional water plans as appropriate into a comprehensive State Water Plan. Today we are weaving together the two programs in our presentation. I will talk about the regional water plans, their background, and status, and discuss some findings and recommendations from our recently completed compilation and synthesis report of the 16 completed and in some cases updated regional water plans. I will also talk about the input from folks like yourselves who participated in regional and state water planning over the past two decades. Gretel Follingstad, also a water planner with the ISC, will discuss a key component in water planning, which is public involvement. She will talk about the extensive program that we conducted earlier this year for statewide public meetings on the State Water Plan update. She will go into some of the lessons learned and input that we received from those meetings as well. We would like to give our whole presentation and save any questions for after that.

Regional water plans are important tools because they describe a region's available water supply, they capture the region's future water demands, and they explain how the region will undertake meeting demand with supply. They are a result of collaboration between water users in the region, usually involving overlapping jurisdictions. Regional water planning is necessary, not only to protect New Mexico's water, but also to allow all stakeholders within a region to help determine the direction of water use within a region and among regions of the state. The original impetus for regional water planning came from a federal court ruling that New Mexico's prohibition against out of state water transfers of New Mexico's groundwater

was unconstitutional. As a result of this ruling, it became evident that New Mexico needed to plan actively for its water future and demonstrate the need for water in New Mexico. The New Mexico state legislature in 1987 widely recognized the need for water planning to protect water by enacting legislation. Also, they gave the ISC responsibility to fund water planning efforts. Regional water planning began in an effort to balance current and future needs for a region. The legislature gave the ISC responsibility for overseeing a regional planning grant program and the planning process itself. The commission has worked with all regions of the state to prepare regional water plans.

Once regional water plans are completed, the OSE and commission staff reviews them. A regional plan is considered complete when it is accepted by the commission. Figure 1 is a map of the 16 water planning regions. Regional water planning efforts have been going on simultaneously with the State Water Plan. This map shows where the 16 planning regions are located around the state. The 16 planning regions were self-selected by the residents of these areas as part of the 1987 Regional Water Planning Act. The first regional water plan to be accepted by the Interstate Stream Commission was the Lea County Regional Water Plan, which was finalized in the year 2000. The last regional water plan to be accepted by the commission was the Taos Regional Water Plan, which was completed in 2008.

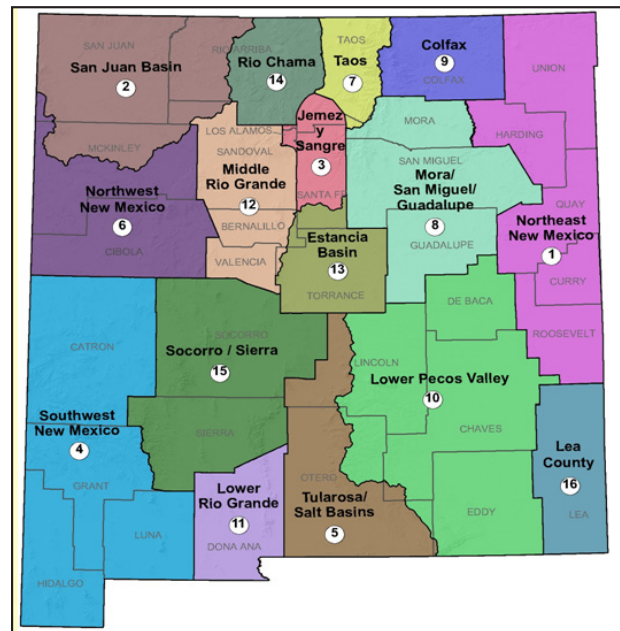


Figure 1. Sixteen Planning Regions

Figure 2 depicts just a few covers of some of the regional water plans. You may view and download all 16 of them from the Office of the State Engineer's website. Each plan is unique to its region, each plan is different just like their covers, and one size definitely does not fit all. For the purpose of integrating the regional water plans into the State Water Plan, an ad hoc committee was formed in 2003, which is now called the Regional Water Planning Advisory Council. The Interstate Stream Commission continues to support and staff this group. Regional representation is needed, but since this is a volunteer group and there is little funding, concerned citizens can keep it going by making valuable contributions to the regional planning process. I see several faces out there today that I have seen before.

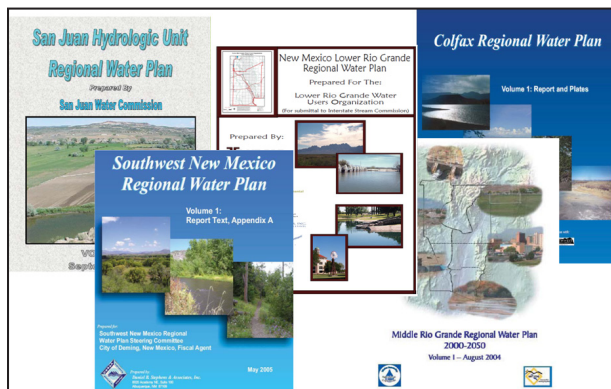


Figure 2. Regional Water Plans

One of the ISC's tasks in collaborating with the Regional Water Planning Advisory Council and other stakeholder groups will be to revise and update the Regional Water Planning Handbook so as regional water plans are updated, they will also be consistent. Our agency undertook preparing a report that was done by Daniel B. Stephens and Associates to look at all the regional water plans and provide a basis for comparing and contrasting plans for consistency to determine among other things, how each region estimated its future water supply and demand gap. This draft study is available for viewing in our office, titled "first staff analysis of the regional water committee through the lens of institutional constraints," the premise for the study being that all of New Mexico's water is appropriated. The compilation report provides findings and recommendations for improving our region's and state's assessment of water resources to meet future demands.

Some the interesting points revealed by the report included that many of the first plans completed contain outdated information. Not all the regional plans are consistent, and they are often like comparing apples to oranges, common terminology is not used, terms vary from plan to plan, some plans have public welfare statements and some do not, and all plans need to better address climate variability. Some of the interesting points revealed by the report include that different sources were used to project population growth, most plans did address municipal conservation, and all plans discuss or include some common elements of agricultural water conservation.

The report also offered a few recommendations to increase stakeholder involvement: get more involvement from the business community and chambers of commerce when updating the regional water plans; use more consistent methodologies, although the agency should allow some latitude to ensure consistency, especially with respect to population forecasts; make stronger linkages to municipal 40-year plans; and encourage greater dialogue with neighboring regions, because the first round of regional water plans were done largely in a vacuum, regions that share watersheds need to plan accordingly.

Regions that hope to export water from another region also need to plan accordingly. The recent Upstream-Downstream Project, established on the Rio Grande to enhance communication and collaboration among regions within the watershed, held a number of workshops that have led to greater understanding of mutual needs. The project was a good model of what should have been done in other regions to enhance communication and to identify areas of common concern and areas of common resolve.

Other recommendations include placing greater emphasis on constraints of water availability. It was recommended that regional water plans give greater emphasis to constraints on supply and how to overcome them by examining the relationship between supply and demand and to place greater emphasis on potential environmental impact such as endangered species and water quality issues. Also, it was recommended that more emphasis be placed on energy considerations, as there is a close relationship between energy use and water use. Any energy supply project requires water for cooling purposes, and any water project requires energy to pump groundwater and to run equipment.

Another recommendation was to increase the focus on implementation of key projects. Plans are intended to lead to action; plans should highlight regional projects that are to be undertaken in the years the plan discusses. Regional plans should be updated as assumptions and conditions change. They should be reviewed every five years just like the State Water Plan to determine whether there is a need for an update.

The plans should not only be updated regularly, but they should also be monitored to determine whether they are being implemented. Each region should address regularly whether the projects contained in the plan are being implemented. If the projects are not being implemented, then a progress report should indicate the obstacles that need to be overcome in funding or staffing in order to move forward as scheduled in the plan. And finally there is a need for ongoing funding for regional water plans. Proper regional planning costs money, without a dedicated and consistent source of funding for regions, it isn't reasonable to expect them to meet the standards imposed on them.

In order to move forward with regional water planning, in addition to revising the Water Planning Handbook, we will continue to support updates to regional water plans as money becomes available. Currently, the regional water planning program receives \$50,000 in recurring funding annually, and we are trying to hang on to that during this year's budget crisis.

Gretel Follingstad

Welcome and thank you all for having us today. My name is Gretel Follingstad and I am also a water planner with the Interstate Stream Commission and the Office of the State Engineer. I am going to give you a progress report on the 2009 State Water Plan update. I see many familiar faces in the audience, many of you attended some of our meetings that were held from April to June of this year around the state in our extensive public involvement program to gain the public's input on the State Water Planning update.

I'll give a small segment of the presentation that we gave around the state just to give you a flavor of that presentation. We started by asking our audience, why prepare a State Water Plan? Water planning is very important for our state because it is a less expensive approach than reacting to crisis situations, it provides an avenue

for public involvement on water management issues, it provides an opportunity for integration of water quality with water management, and it also promotes collaborative regional cooperation. Water planning protects our water availability because it improves efficiency, it prioritizes infrastructure funding, and it links local, regional, and statewide planning efforts.

Figure 3 is a map of water planning by western states to give you an idea of which other western states have state planning efforts. The blue states have state water plans and water planning programs, while the tan states have a water planning program but no comprehensive state water plan.



Figure 3. Western Water States Planning Map

Figure 4 is the cover of our 2003 State Water Plan, with which I hope many of you are familiar. In 2003, legislators charged the Interstate Stream Commission in collaboration with the Office of the State Engineer and the Water Trust Board to prepare and implement a comprehensive State Water Plan. The State Water Planning statute is NMSA 72-14-3.1. Governor Richardson said the plan needed to be completed before the end of that year, and the first State Water Plan basically provided a policy framework for the state to manage water issues and prioritize funding needs.

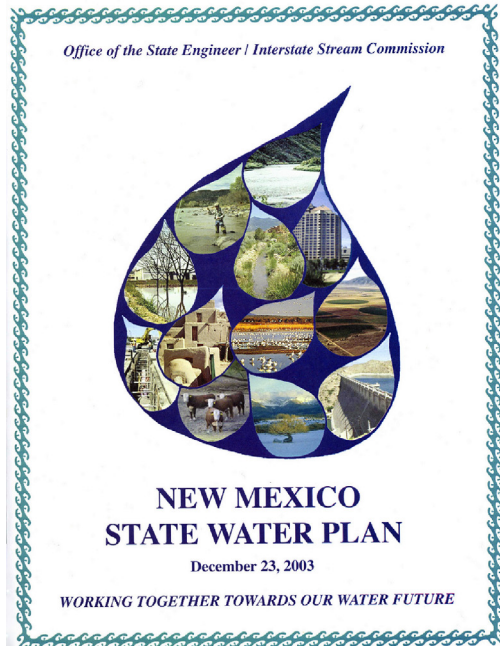


Figure 4. Cover of the 2003 State Water Plan

In 2007, the Office of the State Engineer and the Interstate Stream Commission instigated a State Water Plan review, which was published in 2008. It was prepared in conjunction with the Water Cabinet, the Governor's Blue Ribbon Task Force on Water, and the Regional Water Planning Advisory Council as well as other state agencies to review how well we've met legislative objectives in that 2003 plan and what areas need improvement.

The water conditions have changed since the 2003 State Water Plan update. New Mexico's population has nearly reached the 2 million mark and is expected to continue to grow, leading to increased demands on water. Legal changes have affected water management statutes and decisions. There has been an increased emphasis on water conservation throughout the state, especially in municipalities. Also, the State Engineer has adopted new rules and regulations on the safety of dams; there are new groundwater and surface water rules and regulations; there has been the declaration and extension of groundwater basins; increased public concern over climate variability and long-term drought situations has occurred; and there is a need to improve aging infrastructure around the state. Other changed conditions include private parties proposing significant new interstate water transfers, a resurgence of uranium mining around the state, and increased federal and state listings of critical and endangered riparian species.

From these lists of changed conditions, we find our priorities for the 2009 update: continued population growth and higher demands on water, the need for statewide water conservation, the need to address the impact of climate change around the state, and the need to update water projects, programming, and infrastructure projects around the state. These issues were addressed in our 22 meetings held around the state. Figure 5 is a map of the locations of those meetings. The public input from those meetings will be incorporated into our State Water Plan Update. Our final meeting was a State-Tribal Water Institute meeting in August, which was held for representatives of all of our tribes and pueblos.

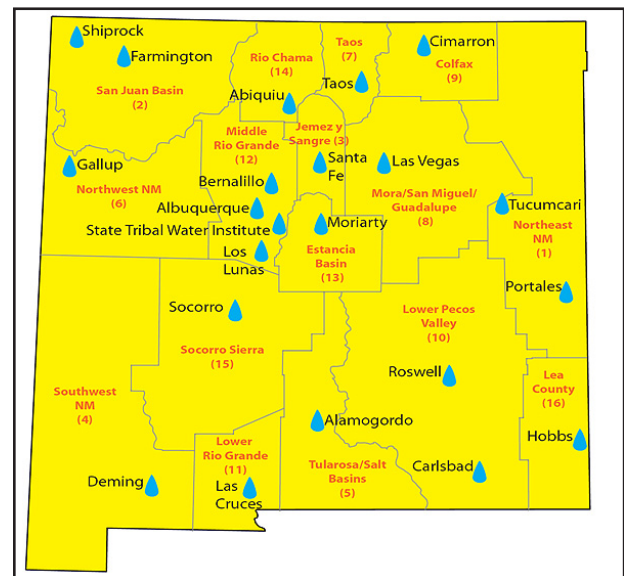


Figure 5. Map of 22 Public Meetings Held Across the State

Figure 6 is a map of the 95 communities that we reached through our efforts with the 750 people who attended the meetings. We had two teams and we split up the state to hold these meetings and present four focus areas for the State Water Plan Update. Statewide news releases were sent to help publicize our meeting efforts, and these were sent about 10 days before each meeting. We generated numerous news stories to help promote the meetings, some of which you may have seen. There were media advisories that targeted specific communities and were sent out a week prior to each meeting. These advisories were often picked up by local media and newspapers to help us get the word out. In some cases we took out paid ads to help gain public input for these meetings. We

also distributed flyers for our meetings with the help of our Regional Water Planning Advisory Council and we'd like to thank all of those who are here, in addition to our district managers who also helped us get the word out on the ground. In addition, we had extensive email invitations to our meetings, which included a list of various target audiences, including state legislators, city and county leaders, public works directors, water conservationists, federal agencies, sister state agencies, acequia associations, pueblos, tribes, and nations (reservations), in addition to congressional representatives, recreational advocates, environmental groups, and economic development advocates.

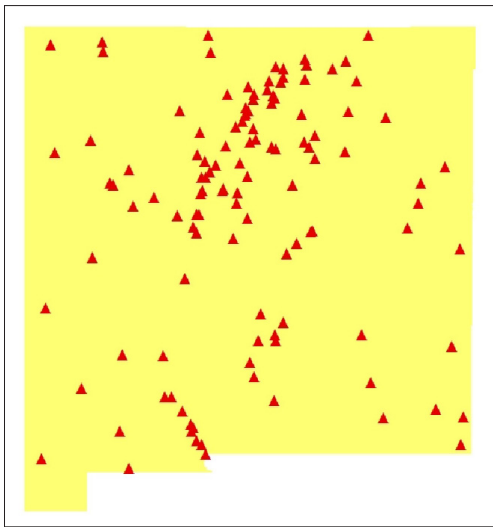


Figure 6. Map of 95 Communities Reached

At our meetings, we had entrance and exit surveys so that we could gain some idea of participant level of understanding not only of the meeting topics, but also how they heard about our meetings so that we can continue to fine-tune our efforts for next time. Some of the survey results include that most people heard about the meetings via email, newspapers, and radio as well as word of mouth, and that most people entered the meeting with some familiarity with state and regional water planning. In addition, the majority of people surveyed learned something new about the State Water Plan, regional water planning, and New Mexico's water needs in general. Most people said the meetings provided a good balance of education and listening to input from the audience.

The 2009 State Water Plan public meetings were held at various locations around the state. The 22nd meeting was our State-Tribal Water Institute held in Albuquerque and attended by representatives of about a dozen tribes, pueblos, and nations. The agenda that we covered at each meeting included the history of water planning in New Mexico, which Angela touched on earlier today, the four focus areas that I just mentioned, followed by a statewide "water snapshot" to give people an understanding of water supply and demand around the state. We also looked at the region-specific picture and what their region looks like in terms of supply and demand and water planning. Then we asked the questions on our four focus areas, the purpose being again to gain public input on the State Water Plan Update.

We showed a pie chart that comes directly from the Office of the State Engineers 2008 Annual Report. It shows 77 percent of water is used for irrigated agriculture, 10 percent goes to public supply and domestic uses, 7 percent is lost to evaporation, and 6 percent is used for livestock, commercial, industrial mining, and power plants. We also used regional map to show the percentage of groundwater versus surface water in the region. We took those maps from our Water Use and Conservation Bureau's 2005 Water Use Report. We also looked at New Mexico's water availability of both groundwater and surface water in the presentation so that people could get an understanding of the fact that we are a conjunctive management state.

We showed participants the regional water planning map (Fig. 1) that Angela showed you earlier today. We then looked at what's going on in their region, showed them the cover of their regional water plan in case they weren't familiar with it, and we let them know that their regional plan is available online along with the other 15 regional water plans. That was followed by a snapshot of what was going on regionally – specific for each region and their water needs. Then we got into the four focus areas about population growth. The Interstate Stream Commission had asked the University of New Mexico's Bureau of Academic Research to do a population report specifically for the 16 water regions so that each region can refer back to that report with some reference as to how their region is expected to grow.

We also shared information from our Water Use and Conservation Report that was published in 2005 by the Water Use and Conservation Bureau

and the Office of the State Engineer, also available on our website. Then we asked our audience the specific four questions about our four focus areas. The first question dealt with population growth and demand, "What should your region and the state as a whole do to ensure water for a growing population?" The second question was, "What water conservation strategies would help meet reduced constraints such as population growth and climate variability within your region and the state as a whole?" Next was on climate variability, "Have you observed climate variability, drought, flooding, or severe storms in your region and what should be done to prepare for these extreme circumstances in your region and the state as a whole?" And the fourth question was about water programs, projects, and infrastructure needs, "What water projects and programs are needed in your region, and how should these projects be prioritized for funding?"

From those questions we gained a very good amount of information. The notes from each one of these meetings are available on the website if you are interested in taking a look at your region, a neighboring region, or all regions if you'd like. We pulled together some common threads or themes from what we heard throughout the state.

The following is not a comprehensive list of everything that came up at these meetings but these are the common threads that continuously came up in these meetings across the state. The list here is in reference to all 16 regions so that you can gain an idea of how much common ground there really is in water planning across the state. There are many differences as well, but for the purposes of the State Water Plan Update and the areas that we feel should be addressed, this matrix helps us see the commonalities across the state.

Common Threads:

- Statewide water conservation program – household and outdoor water use
- Agricultural conservation incentives – improve water use efficiencies
- Municipal water conservation – rate structuring, water re-use
- Watershed management (e.g., forest thinning, removal of invasive species, restore fisheries, wetland restoration)
- Water quality protection
- Public Education on water use conservation and supply/demand gap
- Growth management – land use and subdivision regulations based on water availability
- Collaboration between federal/state/local water agencies
- Statewide adjudication/priority calls (senior water rights)
- Water transfers – regulation between regions
- Improve metering /monitoring for better data
- Consideration of interstate groundwater compacts
- Up-to-date hydrologic surveys – better water supply data
- Deep well water policy
- Aquifer recharge and underground storage to reduce losses from evaporation
- Address aging infrastructure – flood control, infrastructure repairs

At this point in the presentation we would be happy to take any questions or comments you may have on either the state or regional water conservation program or our efforts for updating the State Water Plan. I would also like to add that in addition to our public outreach efforts and our four focus areas, we are also looking at the whole State Water Plan internally to update where our divisions have completed some of the projects and priorities that are currently listed in the 2003 State Water Plan. Some of that language will change based not only on the input of the state but also based on some of the hard work that the agency has done since 2003. There is also a document that will be available on our website that incorporates this matrix and the reports of the State Water Plan outreach for 2009. In addition, the compilation reports Angela mentioned earlier will be available on our website and in our office. Thank you.