



2009 State Water Plan Update Public Outreach

Region: Jemez y Sangre
Santa Fe Community College
Santa Fe, NM
June 2, 2009

Summary of Discussion

Facilitator/Recorder: Lucy Moore

Welcome and Introductions

Angela Bordegaray, State Water Planner with the Interstate Stream Commission, welcomed the group of about 25 to this public forum sponsored jointly by the Office of the State Engineer and the Interstate Stream Commission (OSE/ISC). She introduced agency staff and contractors:

Karin Stangl, Planning and Communication Director
Julie Maas, Communications Specialist
Lauren Klose, Planning and Communication Intern
Rolf Schmidt-Petersen, ISC Rio Grande Basin Manager
Elizabeth Zeiler, ISC Rio Grande Bureau Planner/GIS Analyst
John Longworth, OSE Water Use and Conservation Bureau Chief
Linda Gordan, OSE District VI Manager (Santa Fe)
Frank Scott, OSE District VI Water Rights Specialist
Martha Franks, OSE Legal Counsel (contracted)
Lucy Moore, Facilitator (contracted)

Others attending: Joanne Hilton, Amy Lewis, and State Senator Peter Wirth

Presentation

Bordegaray presented an overview of the New Mexico's state and regional water planning process including data on population, water supply and demands, and an overview of the Jemez y Sangre Regional Water Plan. The ISC accepted the regional water plan in 2003. The Jemez y Sangre Regional Water Plan is available on the OSE/ISC website:

http://www.ose.state.nm.us/isc_regional_plans3.html. The 2003 New Mexico State Water Plan is at: <http://www.ose.state.nm.us/water-info/NMWaterPlanning/2003StateWaterPlan.pdf>.

Questions and Comments on Presentation

Lucy Moore, facilitator, introduced herself and explained that she was contracted by the OSE/ISC to help facilitate some of the state water plan review meetings. The group made the following comments on the presentation.

Tribal Water Rights

Question: A participant asked about the relationship between the Rio Grande Compact obligations and tribal water rights.

Answer: An OSE attorney explained that although the Compact states that nothing in the document shall impact tribal water rights, it is not clear just what would happen if there were a priority call on the river in order to meet the compact obligations.

Concerns with gap figures

Question: Participants asked about the 1,400 acre-feet (af) figure in the presentation that represents the gap between water supply and demand in the year 2040. A question was raised regarding how the gap between supply and demand presented at the meeting compared or differed from the gap presented in the regional water plan.

Answer: The group speculated on the source of the figure that it was the result of certain simplifying processes used by consultants in preparing summary data for all 16 water-planning regions. Some suggested that different dates were used in different calculations – 2020, 2040, and 2060 – and that could account for discrepancies. Local water planners noted that the region was divided in five sub-basins, each with its own characteristics and figures, and that it was more accurate to look at each sub-basin rather than try to generalize the region as a whole.

Planners also pointed out that since the original plan was adopted in 2000, the water planning council has worked hard to reduce demand by implementing policies and practices with the result that the projected gap is less in the revised plan than it was originally. From 2000 to 2007, the gap was decreased from 19,000 af to 10,000 af as conservation measures were anticipated and the Buckman Direct Diversion Project broke ground. A further complication, however, is that the population projections are higher than the region expected, meaning that further demand reduction and conservation will be necessary. The best source for data on the Jemez y Sangre region is in the 2007 revised regional water plan, which can be found on the ISC website:

<http://www.ose.state.nm.us/water-info/NMWaterPlanning/regions/jemezysangre/PCTC/JyS-UpdatePhase1FinalReport-Appendices-2008-08-14.pdf>. A participant asked that the Jemez y Sangre clarify the 1,400 af figure. [Staff response: The three gap analyses are as follows:

- The original Jemez y Sangre plan projected considerable growth in the municipal sector. Demand projections through 2060 were prepared by sub-region and compared to available water supplies on a sub-region basis. Considerable gaps were identified in the original plan.
- A similar analysis was conducted as part of the 2007 Update, using more current data. The 2007 update included new projected demands identified as part of the Aamodt settlement and revised demand projections based on the more recent population and water use data (per capita use had dropped considerably due to concerted conservation efforts). The update analysis also reflected new supplies such as the Buckman Direct Diversion coming on line. As a result, the gap was considerably lower in the 2007 Update until around 2040, and then it increases again as new demands exceed the capacity of new supplies that have been brought online.

- The single chart shown at the meeting showed the amount of water diverted in 2005, as reported by the Office of the State Engineer, in comparison to the projected water use as reported in the plan. Similar charts were prepared for comparison for all of the 16 planning regions. The date of the projection as shown on the chart was 2040, so that all regions would be consistent (most regions did not project water use beyond 2040. The 2060 gaps shown in the regional plan reflect 20 more years of growing demand than the 2040 chart. The chart included the entire Jemez y Sangre planning region, and did not separate sub-regions (which provides more accurate analyses). The Jemez y Sangre plan did not project water use for all of the categories reported by OSE, and some of the information in the OSE report was difficult to separate into partial county regions (public water supply and agriculture use was identified by location, but other categories only reported county totals). If the other categories were removed from the analysis, the calculated gap in 2040 would be much closer to the projected gap reported in the original plan.]

Agricultural water use

Comment: A participant noted that if 75 percent of the water used in the state is for irrigation, as the presentation stated a minor savings in agriculture could have a big impact.

Comment: Another observed that *acequias* play a major role in northern New Mexico, and as quasi-governmental agencies should be consulted in matters of water planning. It was also noted that the census of agriculture has been undercounting Hispanic and tribal irrigators, and that the last two year period showed a 1,000 percent increase. A participant added that although federal and state cost-sharing programs are available to help *acequias*, a disproportionate share goes to municipalities.

Comment: A participant noted that a new law requires out of basin transfers of *acequia* rights to be approved by the local *acequia* association. She asked that this be added to the *Water Rights Fact Sheet* distributed at the meeting. Another told the group that moving water from a community impacts the quality of the remaining water, the riparian health of the area, and often the cultural values and quality of life of residents.

Comment: A Jemez y Sangre council member said that the council sponsored a workshop on protecting areas of origin from out of basin transfers, in an effort to increase understanding of *acequia* needs and priorities.

Groundwater desalination

Comment: There are hazards to the desalination of deep groundwater, observed a participant. The state should beware of the potential for aquifer collapse and subsidence. In addition, the process produces waste products, including a dangerous chemical that must be disposed of properly.

Domestic wells

Comment: A participant urged the state to regulate domestic wells. The number of unmetered and unregulated wells indicates that a large amount of water is being consumed with no record or control.

Economy and Water

Comment: Although many argue that water is needed for economic development and that without economic development the state will fail to prosper, a participant argued that running out of water is the real threat to economic development and health of the state, and that the government should permit development that is sustainable and protects water resources.

Adjudications

Question: Another participant asked how long the adjudication process would take.

Answer: A contract attorney answered that adjudications pose many challenges and that the Office of the State Engineer is aggressively pursuing the completion of pending adjudications. The current estimate is that it will take 15 years to complete those. The largest adjudication, the Middle Rio Grande, has not yet been filed.

Water Quality

Comment: Several times during the meeting the issues of water quality was raised. The New Mexico Environment Department, Surface Water Bureau, representative urged state planners to increase their focus on water quality in the State Water Plan. Adequate water quality, he said, is critical for all designated water uses, including those in-stream uses, like wildlife and recreation. He offered to work with the OSE/ISC to make this a reality in the revised state water plan.

Answer: The Governor's Water Cabinet is a forum for coordination of state agencies to address water issues, and water quality has been the subject of many meetings. An ISC attorney suggested that at this Cabinet Secretary level, progress on water quality was possible. He added that it is a matter of resources, and the coordination of agencies to maximize scarce dollars.

In-stream designated uses

Question: The water quality issue led to a discussion of supporting in-stream designated uses, with quantity as well as quality, of water.

Answer: OSE staff said that the state issues US Fish and Wildlife permits for in-stream uses to maintain quantity and quality for fish in certain locations, although in-stream flow is not included as a beneficial use in state water law. The group identified other mechanisms that put water in the river. On the Pecos, the state pays farmers to leave water in the river rather than irrigating to satisfy the requirements of the Pecos River Compact. A provision in the state's forfeiture of water rights statute provides for contributing water to the river without forfeiting a water right. * A participant observed that this concept is somewhat foreign in New Mexico because of the reality that the water is fully appropriated and because of the mindset that beneficial use of water means using it.

Responses to the Four Focus Questions:

The group considered the four focus questions for public input on the State Water Plan Update.

1. What should your region and the state as a whole do to assure water for a growing population?

- Adequate funding: A participant noted that the fundamental problem is the lack of funding from the state legislature. The first State Water Plan revision was done under great time pressure and with very little money. The revision is

also being done on a shoestring budget. ISC/OSE planning staff is holding 21 public meetings throughout the state with minimal funds. The revision process is an attempt to integrate new information into the plan, and make improvements wherever possible.

- Water re-use: A participant spoke in favor of gray water, and even black water, systems in new homes and retro-fitting some existing buildings, to maximize the use of every drop.
- Attitude shifts: Some participants suggested that local and state government as well as New Mexico citizens need to change their attitudes toward water. One suggested replacing the current depletion-based model with a “continuous” model that calls for sustainability of the resource. Another questioned whether “supporting a growing population” is the right goal. Sooner or later, he said, we will run out of water unless we change the way we approach water use.
- Collaboration: A participant noted that in the absence of adjudicated water rights, the Santa Fe basin is without rules. This void, she said, offers an opportunity for those with an interest in water policy and management to communicate and work together to find solutions that work for everyone. She urged the state to support this kind of local collaboration. OSE staff noted that the Active Water Resource Management (AWRM) program was designed to honor exactly this kind of local, community agreement.
- Empower regional water planning: A participant urged the state to give the regional water planning entities more teeth and more funding so that they can have some impact and implement their recommendations.
- Integrate and reconcile regional water plans: There was support for requiring – and helping – regions to reconcile their differences with neighboring plans, and to integrate their goals and priorities for maximum effectiveness.
- Bring political power to the table: Another suggested that the implementers must be at the table with the local and state water planners, if the plans are to become a reality.
- Enforcement of water rights and permits: A participant pointed out that Colorado has strict and widespread enforcement of water law violations, and that New Mexico may be losing water to illegal diversions. OSE/ISC staff responded that New Mexico faces many different challenges, and that there is enforcement of violations to the extent that resources allow. The Pecos Basin, for instance, is completely metered, adjudicated and enforced. The agency admitted that it is often dependent on reports from water management entities,

like acequias, and in many cases they turn to that entity for enforcement. The AWRM program, now under litigation, is intended to meter diversions, identify waste, and provide enforcement, as well as encourage shortage-sharing agreements that would allow water to move from one user to another efficiently in time of drought or other emergency. Another participant noted that the enforcement issue is tied to adjudications; enforcement may be easier once water rights are established.

- City of Santa Fe policies: A city water planning spokesperson offered the experience of Santa Fe in trying to anticipate a growing population. She felt that the policies were effective and well implemented. They include:
 - 1) Requirement that developers offset water use with wet water rights;
 - 2) Conjunctive use of ground and surface water, to maximize the availability of the groundwater in times of drought;
 - 3) Development of, or linking existing, regional water systems to population growth areas;
 - 4) Reduction in the per person water consumption per day to 100 gallons, including all uses;
 - 5) Providing a minimal flow in the Santa Fe River, to protect important historical, cultural, and environmental values of the community.

2. ***What water conservation strategies would help meet increased constraints (population growth, climate variability) on water in your region and the state as a whole?***

- More recycling and re-use: A participant observed that treating wastewater allows the water to go further, to be used again and again. The more wastewater treatment facilities, he concluded, the better.
- Integrate water planning with land use planning: condition permits to water conservation measures.
- Santa Fe County Land Use and Growth Management Commission: A commission member explained that experts are developing a plan for the county that will identify “wise” growth strategies, including ways of adding water to the aquifer.
- State water conservation plan: A participant urged the legislature to give a one-time appropriation to the OSE/ISC to develop a state water conservation plan. He recommended using a collaborative process with representative stakeholders from all sectors of water use (agriculture, municipal, energy

generation, domestic, fish and wildlife, recreation, etc). He added that both the planning process and its implementation should be adequately funded.

- Political will: Many agreed that water planning and serious conservation take political will, not just money. They urged leadership to show courage in addressing the state's critical water needs.
- Regionalization: link management of smaller systems to larger systems for economies of scale, e.g. trained certified water and wastewater operators can "circuit-ride" to smaller systems that can benefit from expertise in assessing leaks and surveys. One example is the Glorieta Estates Water Board dealing with water quality as well as water quantity issues.

3. *Have you observed climate variability (e.g. drought, flooding, severe storms) in your region? What should be done to prepare for these extreme circumstances in your region and the state as a whole?*

- Regional baseline data: A Jemez y Sangre water planner noted that their process, which began in 1998, has good baseline data, and that this will be useful in determining climate variability in the future.
- Unknowns: A participant spoke of the great number of unknowns about climate variability. It may be warmer in this region, but there is little data on future precipitation. Will there be less or more, and at what times, and in what form? Without more data, realistic predictions are impossible, and without realistic predictions, preparations may be off target.
- San Juan-Chama: There were concerns about the impact of climate variability on the reliability of San Juan-Chama deliveries to the Santa Fe area.
- Storage: A participant suggested exploring water storage options, if the prediction is for earlier snowmelt. Another suggested an aquifer storage and recovery (ASR) program.
- Water modeling: An irrigator spoke of the benefits of water models in determining how and when to apply water to land. Sandia National Laboratories, in Albuquerque, and Los Alamos National Laboratories, in Los Alamos, have been working with local irrigators to develop and use these models.
- Watershed restoration: A representative from the Energy, Minerals and Natural Resources Department urged the state to undertake projects aimed at

maintaining and/or restoring healthy watersheds. He added that collaboration – among agencies and with landowners – is the key.

- Conjunctive use: Several spoke of the benefits of conjunctive use policies designed to conserve groundwater for us in times of drought when surface flows are not available, or less plentiful.
- Loss of agricultural land: An irrigator in the Pojoaque Valley observed that half of the agricultural land has been lost in the last 50 years to development.

4. What water projects are needed in your region? How should these projects be prioritized for funding?

- Regional water systems: Throughout the meeting, several local residents spoke of the importance of developing regional water systems wherever possible, and asked the state to provide funding for the smaller communities. These systems, they said, offer many benefits, including efficiency, better health and good quality. Conservation is more feasible, suggested one, for larger, regional systems rather than small community systems, or wells.
- Importance of wells: Another participant observed that since the distribution of water through a regional system will inevitably result in water loss through leaks and breaks, it might be more efficient in certain rural areas to continue to rely on wells.
- System operators: A participant recommended more training and certification programs for water system operators. Without skilled operators, the systems can be wasteful, as well as unsafe.
- New Mexico Environment Department (NMED) Construction Programs Bureau: A Bureau representative explained that her division of NMED, created by the Water Cabinet, helps small communities and mutual domestic associations plan for water and wastewater infrastructure needs to meet increased demand. There is an online uniform funding application process, and she invited anyone to contact her for more information: Melanie Delgado, NMED Water Quality Bureau.
- Cloud seeding: During the evening participants spoke of cloud seeding. Some felt that it offered a good opportunity to increase precipitation in the region, and a participant said that there was support from both Pueblo and non-Indian communities in the Pojoaque Valley.

- Another questioned the wisdom of deliberately changing a climate that many find desirable.
- Glorieta/Pecos Region: Residents from this area spoke of their aging infrastructure and the need for studies and assistance for regional water treatment and delivery.

* The Act, passed in the 2007 New Mexico Legislature, amends a section of Chapter 72 NMSA 1978 to clarify a water allowance upon conservation of water. The Act, SB 461, Water Conservation and Allowances, seeks to clarify the relationship between water allowances and conservation of water. Among the provisions of the bill, it provides that improved irrigation methods or changes in agriculture practices resulting in conservation of water shall not diminish beneficial use or otherwise affect an owner's water rights or quantity of appurtenant acreage.

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