



## Published by the New Mexico Water Dialogue

To promote the wise stewardship and ensure the availability of water resources for future generations of New Mexicans through support of community-based planning and creation of inclusive forums for education, communication, and development of common ground.

# The Road Ahead

by John R. Brown, Executive Director, New Mexico Water Dialogue

**C**reating a State Water Plan that reflects the “public welfare” of the people of New Mexico will be a challenge. It must be a product of collective action, bringing together regional and statewide perspectives, and yet it must not get bogged down in endless procedural debate about whose interests deserve how much representation. Nor should it be the result of choices framed by the simplistic journalistic dichotomies of our time: “people vs. fish,” “environment vs. economic development,” and the like.

The public welfare is neither the sum nor an average of our narrow and short-term self-interests. To arrive at it we must recognize that the water problems we face as a state are so serious that none of us can expect a solution based on *someone else* becoming “less wasteful.” The social dilemma we face is that if each of us doggedly pursues our self-interest and “wins” something in the process, all of us – fish, flycatchers, and farmers, as well as developers and the rest of us, and the environment that sustains us – are going to be worse off. We may instead choose to examine our assumptions about what creating a livable future in our desert environment will require from each of us. It is a journey of a thousand miles that we must take together if we are to succeed.

At the Dialogue’s statewide meeting in January, more than a hundred of us from all over New Mexico took a few steps down that road. We ended with some lessons, framed as messages for our new Governor and State Engineer, though they are also reminders to our-

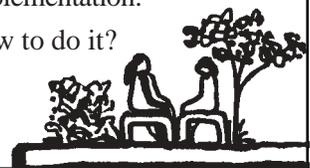
selves. Though not “official” positions of the Dialogue, they are consistent with our mission, which is to enable people with diverse interests to discover common ground.

The new leadership in our state government will be valuable allies, but they cannot do it by themselves. The legislature’s largest interim committee, Water and Natural Resources, endorsed state water plan legislation. State Engineer John D’Antonio, an experienced administrator who has headed the OSE’s water rights program, and Interstate Stream Commission Director Estevan Lopez, an acequia parciante, president of a mutual domestic water association, and well-versed on local water issues as Santa Fe County Manager, will bring energy and skills to the task of reforming our water institutions. The all-new Commission is a wealth of talent and a model of our diversity. Gov. Bill Richardson’s leadership will assure that sufficient attention is focused on this issue, and his famous listening and negotiating skills may be required to bridge gaps. But a state water plan can’t be built from the top down.

If legislation authorizing the creation of a state water plan passes and is signed into law, a committee representing each region and stakeholders from diverse constituencies will be formed to guide its development. It is important that this committee be broadly representative, and that it articulates a vision of New Mexico’s water future, formulating criteria to guide its decisions, and specifying the role of state and regional plans in shaping the policies that will get us to where we want to be.

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## The Dialogue

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## Gleick to keynote at Albuquerque conference

An international water expert of utmost interest to Dialoguers will be the keynote speaker at the upcoming Xeriscape Conference in Albuquerque on October 17-18, 2003. Below are some details. Conference title is **Water: Our Future Our Legacy**. The keynoters are **Peter Gleick and Amy Vickers**. **Dr Gleick** is President of the Pacific Institute and author of "The World's Water 2002-2003." He will open the conference on Friday with a report on the global water situation. **Amy Vickers**, of Amherst, Mass., is author of "Handbook of Water – Use and Conservation" and will keynote the Saturday session. **Gov. Richardson** has been invited to kick-off the conference on Friday morning. Other confirmed speakers include: **Katherine Gleason**, Chair of the Landscape Architecture Department, Cornell University who has excavated ancient gardens in the Mediterranean to reveal their structure for utilization of water; **Tom Swetnam**, Director of the Tree Ring Lab at the University of Arizona; **Mike Kernodle**, former USGS hydrologist who studied New Mexico water availability; **Doug Bennett**, formerly with Albuquerque Water Conservation Office and now implementing conservation measures in Las Vegas, NV. For more information visit our web site at <http://www.xeriscapenm.com>

Organizers are encouraging early registration this year and offer on-line registration. Conference location is the Albuquerque Convention Center and Exhibit Hall. Fee for the two-day conference is \$100. Mail registration to Xeriscape Council, PO Box 14311, Abq., NM 87191.



## Editor's Note

The Dialogue is back! We hope you appreciate the new lean and mean format. Please give us your feedback. We would like to see the Dialogue published regularly, ideally three times a year. We need your contributions to make it go, as well as your ideas for identifying other potential funding sources. Please be generous with both.

This issue is devoted to the statewide meeting held in early January, just as the state water plan bill was readied for introduction in the legislature. Some of the information herein may be seriously outdated by the time you receive the newsletter, but the major points of the meeting remain.

The morning sessions provided important information about changes in the physical situation we face (not a "drought" but more like a normal precipitation pattern), our population and our diverse values as they pertain to water. In the afternoon, we explored the challenges facing us in managing water equitably and sustainably, the value of a state water plan in that effort, and what the new administration in Santa Fe can do to help make that plan a reality. Enjoy!

## The Governor's plan



**A**t the beginning of the day, Anne Watkins, newly appointed special assistant to the State Engineer,

kicked off the all-day statewide meeting with an overview of Gov. Richardson's plan for water security in New Mexico. Some of the key elements of the Governor's plan include:

1. Planning for administrative projects and upgrading the Office of the State Engineer. OSE and ISC have not had the funding to do in a timely manner what needs to be done. Improvement of resources in that area is critical to meeting the challenges.
2. A water plan that reflects living together in an arid environment. We're coming out of a wet period. A state water plan is going to have to be a living document and not etched in stone. We need to move quickly to get this plan in place.
3. Improving the adjudication process. The OSE is very important in this, with emphasis on negotiation rather than litigation. The governor has already met with the Texas and Chihuahua governors on the need to form a cross-border and shared-aquifers policy.
4. Watershed protection, a long-term project but necessary for increasing the water supply and managing forest fires. The governor will look for federal funding meet some of these challenges.
5. Water banking possibilities.
6. Increasing research and development for new technologies. New Mexico's national labs and universities have the capacity to spearhead hydrologic documentation, conservation, desalination, arsenic removal, and improved irrigation technologies.

## Messages to the governor

*by John R. Brown, Executive Director*

**A**t the end of the all-day statewide meeting, many considerations emerged from small groups in the form of "transition messages" to the new Governor. Although in somewhat different form, several were already in his platform as a candidate. They included:

1. Public education – beyond all we've done so far – is critical to enable New Mexicans to understand the "hydrologic reality" we face, including relationships between surface and groundwater, water availability and land use, and water supply and watershed health.
2. Conservation of water must be a bedrock principle of our water plans, and must be made operational through policies like requiring conservation to be considered first among new supply alternatives for every region and jurisdiction, measuring all significant water uses, and conservation pricing by public water suppliers. Every region and jurisdiction should be required to live within balanced water budgets. Conservation practices should not be penalized (e.g. by taking conserved water away from those who use them).
3. Policies and incentives that promote efficiency or "productivity" of water (getting the most use out of every drop) should be stressed. For instance, low water use per job created should be a criterion for evaluating potential new businesses, and water saving (or producing) technology should be required and supported.
4. Although adjudication of water rights and their priority is important to water right claimants to create certainty for all parties, the adversarial procedures used to establish rights should wherever possible be replaced by negotiation and other dispute resolution processes. This should produce more equitable outcomes, much faster.
5. Nine of the 16 water-planning regions are home to Indian tribes or Pueblos. Their participation in water

planning is important to create a measure of certainty in the development of water budgets, but they cannot afford to risk inadvertent quantification of their water rights by "buying in" to regional plans. The state should engage with the tribes and pueblos, as sovereign entities, in government-to-government dialogue and negotiations to provide assurances that their participation in planning to resolve "wet water" issues will not affect the adjudication of their prior and paramount or federally reserved water rights. On this issue, the Governor should intervene personally to begin such government-to-government negotiations.

6. Ongoing conflicts between federal agencies and the state should be resolved through negotiations wherever possible, with greater emphasis on finding collaborative solutions to water issues.
7. Participants were unable to reach agreement on a recommendation to address "area of origin" protection. However, the relation of water to the land ("Sin agua, la tierra no vale nada.") was recognized in our discussion and in a number of recommendations, as was the importance of honoring and respecting historical uses of water, and the customs and traditions associated with these uses. Community and ecological values of water, as well as economic ones, are all vital to the future of our state.
8. Finally, a thread running through our entire discussion was the dimension of time. All decisions regarding water use "must carefully consider impacts to the future as well as present needs." Considerations of sustainability ought to underlie our choices. We can no longer afford the attitude that what we do now doesn't matter because, just in time, someone will invent a technological fix to solve our problem. This is not a burden we should place on our children and grandchildren.

## Drought – a moving target

**I**t would be impossible to count the many words, articles, over-the-fence conversations, agency meetings, tensions and arguments about the drought we're in. But what exactly is a drought? Charlie Liles, Meteorologist-in-Charge and manager of National Weather Service office in Albuquerque, took on that slippery question during the January statewide meeting of the New Mexico Water Dialogue. Liles' answer: "We don't know how to define it." He went on to say that a person could actually choose from some 150 definitions—definitions not necessarily in the lexicon because people look at drought according to their circumstances. "Someone will say we're in drought when we're really in normal precipitation," Liles says. "In the mid-90s, people would say things are really bad with the drought when actually we were in precipitation surplus." Or during a real drought, when someone in Albuquerque turns on the tap, the water comes out and the water bill doesn't hurt too much, that person will not feel affected at all by the drought.

"People ask how does this drought we're in now compare to the 1950s," Liles says. "It's impossible to compare a drought in one era with a drought in another era. We've got three times as many people, more demand, far more domestic wells, a lot more straws sucking water out of the ground, and laws that we didn't have in the 50s." These examples point to issues of supply and demand rather than science or statistics, and Liles says the historical ways of defining drought do not, but probably should, attempt to embrace these considerations.

### The three faces of Drought

The historical ways of looking at drought that Liles refers to come in layers. First is meteorological drought, then agricultural drought, then hydrologic drought, and finally the socio/economic consequences caused by a

drought. Meteorological drought is first recognized as deficits of precipitation. Precipitation is measured and compared to the expectation. Once you have certain deficits in precipitation, it begins to show up in crop production, or the beginnings of agricultural drought.

Next come a hydrologic drought. "A hydrologic drought we're certainly in now," says Liles. "When you have a water deficiency for a long enough time, the water resources are depleted, spring flow diminishes, reservoir levels drop and wells start to go dry." Finally, in the socio/economic realm, behavior of people starts to change. The drought starts to affect their livelihood and they do things they normally wouldn't do. As an example, people who wouldn't dream of stealing water start thinking about it, while some do it.

While it seems remarkable that defining drought has been so elusive considering how it causes so many problems, unlike a flood, a drought is not distinctive. One has to look back in history to determine when and where it started, where it spread and where it ended. It might have a dramatic ending, but it almost never has a dramatic beginning.

### Many indices, many droughts

Liles points out several indices that are used, and have been used, to indicate and forecast drought, some used for short-term, other long-term, others to weight the various methods to look for trends. Using the Palmer drought severity index (PDSI), the current 2002 drought is not that bad. It has only seven months in the severe to extreme category and came to an end because of rains in the fall months, compared to the 1950s drought during which 67 months were in the severe to extreme category. So the duration of drought is a factor, depending on the index. Liles says that when he did this calculation, the statewide precipitation deficit was six inches over three years; in the 1950s, it was 24 inches deficit over a seven-year period.

While these numbers make the current drought seem trifling by comparison, Liles notes that because of the greater demand it takes much less precipitation deficit now to get us into trouble.

Liles participates in the National Drought Monitor, which interprets drought by using various drought indicators in combination or separately. One is a crop moisture index. Another is the Palmer index with weekly and longer-term indices. The Standardized Precipitation Index, or SPI, developed in the mid-90s in Colorado has superseded the Palmer in recent years, but according to Liles, when you're trying to assess drought, "you put your hands on all the indices you can," and to really understand a hydrologic drought, "we really need to go to longer term indices."

### Science meets the grassroots

During the 1996 "drought" in New Mexico, a drought task force was formed, charged with developing a drought contingency plan. This plan is an ever-changing, evolving document. The task force is made up of committees and stakeholders who meet monthly—a testament that drought has the capacity to bring people together in an attempt to understand it, and hence to forecast it. Trying to get a handle on drought is a constant effort, according to Liles. Farmers and ranchers, hydrologists, climatologists, and other stakeholders all inform each other.

Graphing two thousand years of tree ring data provides a visual image that the wet period in 1980s and 90s was an aberration. There was severe to extreme drought in the early 1800s and early 1900s. Using the Palmer index, "this drought last year has the same intensity of worst you can find, but the duration was short," says Liles. "And no surprise to anyone here, in the last 100 years, we've had severe to extreme drought in the state 55 percent of the time." It is a way of life here.

# State may be facing 20-year drought

Liles went on to discuss some distinctive cycles used in climate forecasting, describing the signals of El Niño Southern Oscillation (ENSO), and the Pacific Decadal Oscillation (PDO), the latter cycle discovered in looking at problems in the fishing industry. The PDO tends to deliver alternating wet/dry periods to New Mexico every 20 to 25 years. This cycle entered a negative phase in 1998, corresponding to onset of the current drought in New Mexico. Liles says this dry phase, if the negative PDO trend prevails, will continue for the next 20 years.

PDO in a positive phase will see weather colder than normal in one place and warmer than normal in another; conditions will reverse for the negative phase. The ENSO cycles range from two to seven years, while the PDO cycle is about 50 years. Thus ENSO and PDO may at times reinforce each other, while at other times dampen each other's effects. Studying these cycles has kicked off the infant science of seasonal forecasting. A positive PDO plus El Niño has produced a lot of water in NM, according to Liles. In 1941, thanks to that combination, the area around Cloudcroft, NM, saw 60 inches of precipitation. In 1950s, a negative PDO in relationship with La Niña shut down precipitation. In conflict, a negative PDO may dramatically diminish the impact of El Niño.

The first step in forecasting years in advance, according to Liles, is to look at negative and positive PDO years,

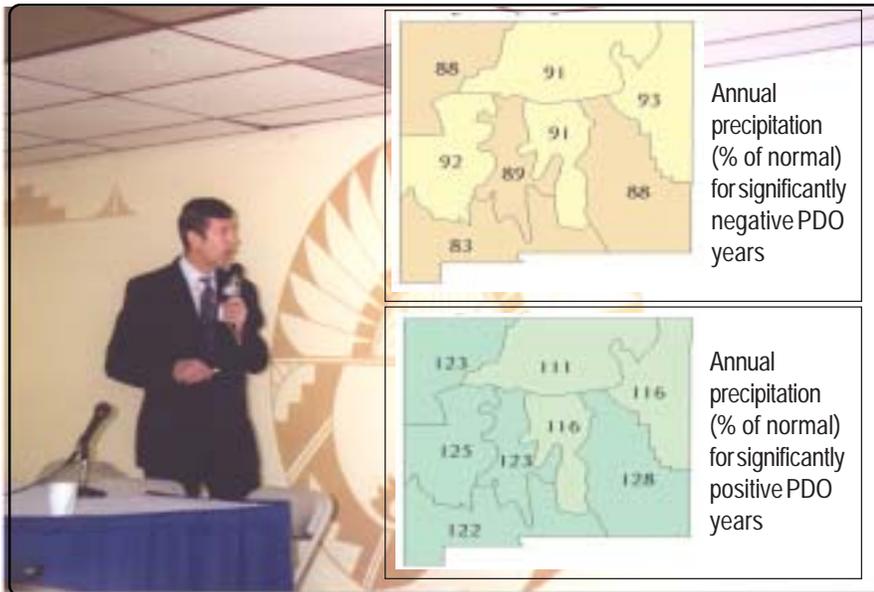
Recent PDO Cycles	
1923-1944	Positive Phase
1944-1977	Negative Phase
1977-1998	Positive Phase
1998-2030?	Negative Phase

then look at the precipitation relating to those, and finally apply them to spatial climate divisions. New Mexico has five climate divisions.

Northern New Mexico is a transition area for El Niño and thus one can be less confident about prediction. Generally speaking, the effect of PDO cycles increases from north to south, the same as with ENSO signals. For 10

positive PDO years, New Mexico can expect 5 ½ wet years, one dry, and 3 ½ normal years. New Mexico went through that from the late 70s to late 90s. For 10 negative PDO years, the pattern is 4 ½ dry years, one wet, 4 ½ normal years (normal being those in which no deficits are accumulated).

Liles cautions that there are not many cycles to study. Can we make assumptions, and therefore predictions,



**Drought facts for New Mexico**

- Severe to extreme drought has affected at least a portion of New Mexico in 59 of the 107 years (1896-2002). That is 55 percent of the time.
- Each climate division in New Mexico is in severe to extreme drought approximately 8 to 15 percent of the time.
- Colorado division 5 (the Rio Grande Basin) is in severe to extreme drought approximately 20 percent of the time.

based on these historical relationships? Is increased amplitude in PDO caused by global warming? If so, wet periods will get wetter, and dry will get drier. Models show New Mexico being wetter because of global warming but with precipitation falling as rain instead of snow, the prevailing wisdom being that less snow pack will worsen the situation.

Where to go from here? Liles sees a need to understand relationships between PDO and ENSO since PDO has been around only five or six years. "We need to find clues if we are going to be able to forecast."

## People still moving to New Mexico

If you moved to Albuquerque in the 1990s, there's a good chance that you came here for a job. This is a finding of David Abrams, a demographer for the Mid-Region Council of Governments who looked at census bureau data to determine changes in New Mexico's population over the last decade.

The state's population grew from 1.5 to 1.8 million, an increase of 300,000 people representing a 1.85 percent growth. The population also got older, the median age increasing from 31 to 35. The non-White population grew from 50 to 55 percent during the decade, the Hispanic/Latino portion increasing from 38 to 42 percent.

Incorporated residences dropped from 64 percent in 1990 to 62 percent in 2000, with unincorporated residences increasing by two percent.

Growth in households increased faster than population, 2.3 percent in-

crease vs. 1.85 percent, respectively.

Two components account for population change, according to Abrams. One is natural increase, or births minus deaths. The other is net migration, or population change minus natural increase.

In the 10-year period, natural increase supplied 52 percent of growth, with net migration supplying 48 percent. Abrams says to take these numbers with a grain of salt in that people born here can move. The key term is net migration. The long-form census asks people where they were living five years prior to 1995, which means one can know the number of migrants from 1995 who are still in the state in 2000. Those living in New Mexico in 1995 were 85 percent with 15 percent having moved in since 1995. Twelve percent were from another U.S. state, coming mostly from the West and South. Two percent came from foreign nations. Of migrants, 41 percent were non-White or Hispanic. Seventy percent of births during the 1990s were non-White or Hispanic children. In the last five years, a smaller portion of migrants into New Mexico have been "minority" than the current "minority" percentage of the population of the state.

The 2000 census also reported that 49 percent of New Mexico residents came here from somewhere else.

Net migration in the first half of the decade rose, and decreased in the last half, with growth considered "moderate" in the last 10 years.

Migration is thought to be related to several factors such as employment, quality of life, and personal reasons, though employment is the only quantifiable variable of the three. Abrams says there is a strong correlation between employment, growth, and net migration. A regression analysis for net migration and employment resulted in an r-square value of .69, which means that about two-thirds of the variance in net migration is explained by variation in employment. For socio/economic data, .69 is considered very high.



Amy Goodin of UNM's Institute for Public Policy followed Abrams with some preliminary findings of a public survey of statewide attitudes, priorities, and preferences about water. Goodin says that the Institute is about halfway through a statewide sample of 800 cases, and cautions the audience that the margin of error is very high with this small sample.

Statewide to date, of 344 respondents, 66 percent are on city utilities, 13 percent on a community system, 17 percent on individual wells, 3 percent other. An oversample being conducted concurrently in middle Rio Grande region revealed 10.5 percent on wells.

Respondents are being asked to rank water's value to them according to residential, agricultural, recreational, cultural and historic uses. Coming in first by far in both the middle Rio Grande region and statewide sample is water for drinking and bathing. Farming is also very important. At the bottom is tourism. Respondents agreed with the statement that lack of water will affect economic development. Water for habitat so far earns a 5 on a scale of 1-7. There is agreement that everyone should be using less water, and agreement that farmers should not be put out of business.

Goodin says that the completed profile will be out soon and can be checked at [www.unm.edu/~instpp](http://www.unm.edu/~instpp).



## "The devil is loose"

**A** lively discussion following Abrams' and Goodin's talks revolved around issues of moratoriums on growth, smart growth, managed growth, whether a healthy economy and controlled growth are compatible, and how water scarcity fits into it all.

From these two presentations, several issues emerged as troubling to the panel and audience. Oscar Butler of the Dona Ana Mutual Domestic Water Consumers Association was concerned that in-migration means not only population increase but also people coming into the state with different values, habits, and attitudes about water. He told the story of chiding a man from California who was filling his pool. "I said, 'Hey, don't you know there's a drought going on?' He responded, 'Hey, drought is for poor people.'"

Deb Hibbard of River Restoration was disturbed that people may be demoting their erstwhile high priority ranking for bosque/river preservation in light of the drought and nervousness about water supply. She expressed concern about attitudes that seem to pit the

natural world against economic vitality as an either/or question.

Janet Jarrat is a dairy farmer, irrigator from Los Lunas and chair of the Valencia County Citizens for Responsible Growth. She finds herself surrounded by sprawl development where once there was no grocery store—the reality behind the census finding in Abrams' talk that the number of houses is growing faster than population. She said she is seeing tremendous changes in land use and the transfer of water rights from agricultural to urban uses, particularly in sprawl areas.

Hibbard found it interesting that tourism was at the bottom in priority value to the public, telling of a Santa Fe friend lamenting having to let their lawns die while tourists are flushing toilets and drinking the water.

Anita Miller, a land use attorney, forewarned that in these hard times counties will be tempted by higher tax revenue from subdivided land than from agriculture, and that farmers and ranchers will be equally tempted to subdivide.

Paula Garcia, originally from Mora, director of the New Mexico Acequia

Association, senses people are in survival mode and that's what is reflected in the study—water to drink, food to eat, a job for money. Quality of life doesn't enter in when the going gets tough. She said the assumption is that water for new growth is going to come from agriculture and that makes the acequias a target. She was concerned about the trend of treating water as a commodity, that water will go to highest beneficial use, "as if ours is lowly use, as if we're using it in some lowly way. That's a value judgment." Her solutions include democracy in water management institutions and articulation of values "so change isn't imposed on us, rather we are agents of change."

### A Native American view

**M**ichael Benson, Vice-President of the Dialogue Board, works for the Navajo Nation in its Department of Water Resources. "When I hear about in-migration it scares me. These people that move around don't have a sense of place or history. They focus on working their job and don't have to think about their neighbors. People get hurt in this rush toward growth and development, so we need to do something for people who are going to get hurt. In the San Juan basin, small farmers are afraid water rights will be bought out and their irrigation system won't be viable anymore. We're going to lose. All the big cities are built where there used to be a lot of farmland. The votes are where the cities are. We don't have the numbers or voting strength. But the American government system is set up so minorities are protected, whether they be racial or rural. We need help to protect the rural lifestyle. The Indian people have federal reserved water rights. Maybe all you need to do is respect the laws in place regarding Indian government. Indian governments help to slow the rush of urbanization and modernity."



*Deb Hibbard speaks at the microphone. Listening from left to right is Dave Abrams, Janet Jarratt, Oscar Butler, Paula Garcia, and Amy Goodin. Lucy Moore (standing) is the facilitator. The panelists are current or former Dialogue Board members.*

# Transitions

Keynote speech for the Statewide Meeting

by Consuelo Bokum, president of New Mexico Water Dialogue board of directors

**N**ew Mexico has gone through a number of transitions in its water history.

When people first settled in New Mexico, they relied on surface water. In dry years there often wasn't enough water to go around, and as more people settled here, there increasingly wasn't enough even in wet years. So New Mexico made its first transition and came to rely on groundwater using windmills and other shallow water wells.

Transition two: With cheap electricity and powerful pumps, we could drill much deeper wells. We could also use that technology to move water from one basin to another across mountain ranges through tunnels. So this transition represented the power of technology to fix the problem of limited water resources.

Because we have not managed our water resources well, a number of big problems face the state now, one of the clearest being the constant threat that we will not be able to deliver enough water to meet our interstate stream deliveries on either the Pecos River or Rio Grande systems. Moreover, the drought years of 1996, 2000, and 2002 have demonstrated to many of us that the state is not prepared for prolonged drought.

Transition three: Predictions are that we are transitioning into a prolonged drought.

Transition four: At the same time we have had record precipitation, we have had record growth.

If the predictions of prolonged drought are true, we have a new problem: The less surface water there is in dry years, the more we will rely on, and use up, ground water. Not only will we



***"There are no solutions on the horizon that will provide adequate water in the near future. We can no longer just wait for a fix. Many of us here today believe that we need to make the next transition into a new way of relating to water."***

have less surface water, we will be even more dependent on our limited and dwindling groundwater supplies.

Transition five: Many of us here today believe that we need to make the next transition into a new way of relating to water, that we need to more actively manage supply and demand, and that the tool to doing that most effectively is water planning.

So what is water planning? It is informed decision-making. For informed decision making, the following elements are needed:

First, facts and information. We need to know how much water we have and what the demand is. In order words, we need a water budget for the state. For many years, people thought that Albuquerque was sitting on top of Lake Erie and acted accordingly. When it became apparent that the size of the aquifer was a fraction of what had been assumed, Albuquerque decided that it needed to change the way it managed its use of groundwater and began a conservation program to lessen demand on a limited water supply in order to lengthen the life of the resource. It also

more actively went out in the market to purchase agricultural water rights. So better information about the resource made it clear that changes were needed.

Second, we need to have a vision and agreed-upon policies: For example, when the New Mexico Water Resources Assessment for Planning Purposes was published in 1976, it was assumed that when the limits to our water supply became a problem, water would just move from "low" value, or agricultural uses, to "high" value, or municipal and industrial uses. This was not a policy developed by the state with public input. When regions started to plan for their water

future, we learned that people who lived in rural areas wanted to stay and maintain their way of life; they did not want large amounts of their water to move away. How do we deal with the conflict? It could happen by chance, or be decided by who has the most money or political power. Or the state's citizens could decide that the vitality of its cities was critical for the state's economic future, or conversely, decide that it doesn't want to dry up its rural areas to support urban sprawl and make decisions accordingly.

Third, a plan contains solutions and strategies: A plan integrates the facts and information with the vision to develop solutions and strategies to arrive at a future point and desired outcomes. And finally, a plan should be implemented.

The New Mexico Water Dialogue has worked with its diverse board of directors, regional water planners, and the Interstate Stream Commission to draft legislation that authorizes a state water plan. This bill has been endorsed by the interim legislative Water and Natural Resources Committee. Sen.

Dede Feldman and Rep. Mimi Stewart have agreed to carry the bill for the interim committee.

The bill provides only a framework for the plan. It requires public involvement, water budgets, emphasizes conservation, and requires methods for resolving conflicts among regional water plans, and between those plans and the state water plan, among other provisions.

Some of you would like to see more from this legislation. I would like to make several arguments against expecting too much at this time. First, this isn't the plan. The plan will contain the specifics of how New Mexico will deal with limited water supplies.

Second, the state needs a plan based on consensus. It will only be implemented if there is broad-based support for the solutions and strategies outlined in the plan.

Third, the bill represents agreement among very diverse constituencies over many months. That is not to say that all constituencies were adequately consulted, that the bill is written in stone and that no word can be added or changed, only that we should build on that success, not attempt to reinvent the bill to meet any of our specific needs.

When we look back at the beginning of this transition in the next five or so years, what I would like to see is the following:

First a water plan that acknowledged that we have limited water and that we need to learn to live within our means.

Second, a water plan that was created with the widest public participation possible, that was developed among parties that listened to and respected one another, that attempted to find balance among competing interests so that there were no clear losers and no clear winners, that the participants wanted to find solutions that protected as many parties as much as possible while still enabling the state to live with limited water, and finally, that we all cared about each other.

## Village mayor looks at zoning and taxes to keep farms and improve cities

**J**ohn Hooker, an architect and urban planner, is the mayor of the Village of Los Ranchos, located in north valley between Montañito and Paseo del Norte. It's a relatively small area with perhaps the most complete range of water users—traditional farmer irrigators, families going back many generations, recent arrivals, people in trailer courts, others in million dollar homes.

Hooker sees a lack of trust among constituencies and stakeholders, but most of all he sees a lack of good data. "Lack of data has allowed us to create false and even dan-

gerous assumptions, like we're sitting on Lake Erie," he says, "or that there will always have enough water, or that drought is the problem of the poor." Add these assumptions about water to entrenched and institutionalized assumptions about growth. "Our way of growing is more households, taking land and water as if there were no end to it," Hooker says. "And we'll continue doing what we're doing as long as we keep the whole system of rules, finances, training, developers, attorneys, accountants, bankers and engineers that is building up Albuquerque, the Southwest Mesa, Rio Rancho, Los Lunas, even Los Ranchos."

Out of these assumptions, land for households is coded to use water for lawn and garden, ignoring that in a desert it doesn't make sense. By coding every house to have a yard, people are going to use more water than if living in a more compacted setting. Hooker gives the example of Munich, a

prosperous city in Germany, whose residents use less than 50 gallons of water per day.

There is also a deep-seated assumption that the market will solve the problem, or alternatively, that we will never solve the problem because of the market. For example, Texas can get all the water because they can pay for it. Hooker views the market as secondary

to the system of constitutional law, state law, federal law, all of which deal with what's reasonable, fair, effective, and equitable. "We can write the law, the rules and regulations that allow us to change the way that we use and

think about water and land."

Hooker points to Focus 2050, an urban growth plan for the counties of Torrence, Valencia, Sandoval, and Bernalillo. He suggests that implementation of the 2050 plan include provisions and accounting for changing the zoning and property tax system. "As long as every farm is zoned for single-family houses and valued for single-family houses, it won't make sense to keep farming much longer," he says. "To prevent this, we can change the tax system so that improvements on farm land are taxed at a high rate, but the land is taxed at a low rate. In the city it will be other way around with land taxes at a high rate and improvements at a low rate." Hooker says this will drive re-development in the cities and discourage development of farms. He also favors the idea of transfer of development rights from those farms into the city. This would allow the city to grow more densely with more infill and re-development.



## The long road to a statewide water policy —the ISC steps up to the plate

“It’s been a long road,” Rhea Graham says. Graham is in charge of the Bureau for Planning and Communications for the Interstate Stream Commission. “In 1987, based on the 1964 *El Paso v. Reynolds* case, a federal court ruled that New Mexico needs a state water plan if it wishes to keep unused water for future needs.” The court didn’t say anything about regional water plans, but in 1988, the legislature authorized regional planning entities because it was believed such a task would be manageable if divided into regions, each of which would write its plan particular to its resources and needs.

More than a decade later, of 16 planning regions, only four have completed their plans. One reason it is taking so long, according to Graham, is that the planning process has been erratically funded as special appropriations. Another reason has been the complexity of water facts subject to interpretation. The ISC is beginning a process for public input by publishing a framework document providing information to get the planning going.

Graham’s talk was flanked by a display of New Mexico GIS maps depicting basins, sub-basins, declared basins (indicating conjunctive management of ground and surface water), hydrologic basins, and basins governed by interstate compacts—all to be included in the framework document for statewide water policy. The document has key chapters to set the background and explain current hydrologic realities. The most advanced section deals with measurement, connoting that, “if you can’t measure, you have a problem.” Graham cautions that options and opportunities are constrained by (1) limits of water availability and (2) legal requirements that have real consequences. Federal laws—interstate compacts and the Endangered Species Act—have to be viewed in concert whenever making policy.

Graham lays it on the line in promoting the necessity for a statewide water plan. “Without a statewide policy, we are vulnerable to losing our options and opportunities,” she says. “Until now, we’ve never had anyone from the governor’s office come straight out and tell New Mexicans how vulnerable we really are.”

What does this mean for an agency like the Interstate Stream Commission? “We need to make outreach to the public and sharing of knowledge a daily priority,” Graham says. “We need to involve even more people than this large group representing diverse interests that we see today.”

Regardless how legislation turns out, some process will be necessary, according to Graham. “It would be irresponsible not to do a state plan. There’s too much at risk.” The ISC will continue to operate under active water resources management. Ideally, there soon will be public access and involvement to consider distribution markets and supply development.

“We have a one-year timeline. We can have policy recommendations by March and public involvement by June. In order to make progress on this long road, we need to have something to submit to the 2004 legislature for action. If we don’t have funding, it will not be implementable. Funding is one of the legs of implementation besides public buy-in. We should expect more challenges because drought magnifies lack of planning.”



## State water plan winding through the legislature

Update by John R. Brown

As we go to press, the prognosis for legislation authorizing creation of a state water plan is uncertain but hopeful.

A bill crafted over the past year with input from Dialogue Board and workshop participants, and endorsed by the legislature’s interim committee on water and natural resources, was introduced by Rep. Mimi Stewart and Sen. Dede Feldman to editorial acclaim in the *Albuquerque Journal* and the *Santa Fe New Mexican*.

Since then, however, the Governor’s office and the Interstate Stream Commission—while endorsing its intent—have raised legitimate concerns about the process for stakeholder participation, relationships of the regional water plans to the state plan, and the ability of the plan to serve as a management tool for the state. A variety of water interests have also weighed in. Through informal discussions, being chaired by ISC director Estevan Lopez, a “thin” consensus on a substitute bill has begun to emerge.

The bill is to be heard in both the Senate Conservation and House Agriculture and Water committees on Tuesday, February 18. Additional amendments may be expected as the bill moves through the legislative process.

Check the Dialogue’s legislative updates at [www.nmwaterconnections.org](http://www.nmwaterconnections.org) for the status of this bill and other water-related legislation introduced during this session.

## The "I" word: Implementation: How to do it?

**I**n the afternoon session, presenters and panelists alike expressed a shared belief that many otherwise excellent plans end up being useless because they lack teeth to put them into action. Many were concerned that the state water plan legislation does not have any authority behind it. Others argued that the legislation is not the plan, and that implementation will happen through other avenues.

Generally it was agreed that in order to make a plan implementable you have to have 1) public buy-in, 2) adequate funding, and 3) a mandate to follow the plan.

Stan Euston from New Mexico Conference of Churches as a planner supports the legislation to create a state water plan, but is deeply concerned that the plan says nothing about how it will be implemented. He referred to the 2050 plan and other voluntary plans across the country that many people contribute to and that look good on paper, but don't get accomplished. Euston gave the example of the formation of a coast commission in California. The people saw the coast as a common resource in jeopardy and pushed the state legislature to pass a law with regulatory powers. They succeeded despite great opposition from the development community. Euston would like to see the roles and responsibilities of the state engineer's office, the ISC, and the regional planning entities revised to have a set of decision guides that they could use to spur on-the-ground decision-making. "I'm ready to say that I wouldn't participate anymore in plan-making that is not implementable," Euston said.

Lora Lucero, a policy analyst for 1000 Friends, said the state water plan legislation is a very good start, but considers that a method for implementation is key to success. "My biggest concern, after the legislation is adopted, is how to make the state water plan legally binding," she said. "It's critical to have something in the legislation, or following the adoption of the legislation, at the regulatory level that makes communities, as well as the state, follow it." Lucero cited good land use plans but that have no teeth because there's no word in law requiring anyone to follow it. "The developers are benefiting from no planning, from inadequate plans, and from plans that are not enforceable."

Rhea Graham of the ISC added that if there were failures to deliver under an interstate compact and the states sued each other, a water master would be appointed and the compact would be reduced in its flexibility, thereby affecting a state plan.

Consuelo Bokum, president of the Dialogue board of directors and Water Program director for 1000 Friends, said it's not realistic to go to this legislature with a piece of paper with an open-ended outline about getting a water plan and expect them to commit to implementation. However, "if we go in for specific grants of money, specific projects and specific problems we're going to solve, that is how we're going to get implementation."

Rhea Graham, whose agency signs off on regional water plans, agreed with Bokum, and emphasized the importance of starting with local elected officials. "When Mayor Hooker for example gets the final water plan from the Rio Grande region, he'll sit down with other officers of the Village and pass a resolution that says that we support this as an entity within this planning region," she said. "When the plan comes to the ISC, we will feel much more comfortable accepting the way it's done, knowing the elected officials have

bought into it. Make sure the resolution includes some commitment to implementation, and make sure you know that your elected officials know."

Lora Lucero agreed that this may not be the legislative session to do it, "but a lot of education needs to go on. We have to go beyond advisory plans; we don't have another 10 years. Don't count on the public to pass a resolution and hold their elected officials' feet to the fire if the legislature is not willing to put teeth into a plan."



*"I'm ready to say that I wouldn't participate anymore in plan-making that is not implementable."*

*From left: Michael Benson, Lora Lucero, John Hooker, Stan Euston, and Rhea Graham*

Lucero said that without provision for implementation, you set yourself and your communities up for failure. "You implement the plan by putting in what is called a consistency doctrine. If you have consistency doctrine written in to state law, it can't be ignored with political change."

Dick Kreiner is from the Corps of Engineers and a Dialogue board member. He said implementation of a state water plan could at some point be trumped by the federal Endangered Spe-

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