

Tribute to Aron Rael

by Lucy Moore

I experienced a personal loss this summer, and the Dialogue suffered a loss as well. Dear friend and colleague Aron Rael died, leaving a legacy of humor, warmth and wisdom.

Aron came to work with us at Western Network as an intern and then associate in the mid-1990s. He joined me, Chris Nunn, and Eileen Frueh as staff to support the fledgling Regional Water Planning Project, which had started off with a bang a couple of years earlier. But it seemed we were losing momentum. The previous year's statewide meeting was a disappointment – not enough people, not enough diversity, not the spirit we were hoping for. New on the scene, Aron patiently listened to our story. I asked him what we were doing wrong, or did people just not care about water.

"Of course, they care about water," he said. "But they need something more than that. They need an event, a gathering. They need food and music. We're creating a community, right?"

Yes! Of course we were. Why didn't we think of that? But food and music for a meeting about the water crisis in New Mexico? My little Anglo outsider brain reeled. But...but... it's not a party...it's serious work... how could we...what about paying for it...I don't know who would –

He interrupted. "Leave it to me."

ARON RAE—*Cont. on page 3*

Water Planning: Growing Pains and Rewards

Please join us at the New Mexico Water Dialogue's annual statewide meeting on January 10, 2013 (see page 8 for the agenda and page 7 for registration). The meeting will address: Reviving Water Planning: Successes, Challenges, and Opportunities.

Water planning in New Mexico is now about 20 years old. After years of work, the first round of regional water plans was completed between 1999 and 2008, and the first iteration of the State Water Plan, completed in less than a year, was released in 2003.

Water planning was initiated in response to a federal court ruling that New Mexico's prohibition against interstate transfers violated the Commerce Clause of the U.S. Constitution. Initially, the impetus was to show that all of New Mexico's water was needed here and not available for out-of-state transfers. It wasn't long, however, before people statewide began to fear that demand exceeded supply and, in many regions, some feared water grabs from neighboring regions in New Mexico and even from neighbors in the same region. In the 1990s, it became clear that a wet period that began in the mid-1970s had ended – a period that coincided with dramatic population growth - and drought emerged as a constant rather than an anomaly. Water planning took off in earnest throughout the state, although water planners have not always agreed on the successes or failures of water planning in their region.

Water planning is not easy. It requires financial and scientific resources, good faith citizen involvement from a diverse group of people and organizations, cre-

ative analysis and creation of potential actions, and implementation. Indeed, probably the greatest complaint is that implementation has been sadly lacking.

It is now close to 15 years since the first plans were completed and five years since the last one was completed. Many things have changed. In some instances, parts of plans were implemented along with progress in aligning available supply with demand. In others, the financial wherewithal to implement plans is lacking. Perhaps most troubling are changes in available water supply – it is simply much drier in most of the state, exacerbating the gap between supply and demand and creating significant hardship, particularly for the rural and agriculture communities which are the most dependent on annual precipitation. There is concern that communities are not prepared for the future and planning is again a priority. Fortunately, there is finally some leeway in the state's revenues for more than the bare bones financial commitments - to education in particular.

The OSE/ISC is including in its budget funding for water planning, and statewide there is strong support among water agencies and users and the public more generally. Some communities around the state are also clear on what their planning needs are. The following articles are reflections from two regions, as well as a report on the State Water Plan that is now being updated scheduled for completion by mid-2013. Hopefully, the legislature will allocate funding for water planning updates, and we can look to the future with an improved ability to provide water for the state's many needs.

≡ DIALOGUE ≡

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Update from the President

by Mary Murnane, President, Board of Directors

Last year, I wrote:

What a troubling summer it has been for so much of New Mexico. The monsoons did not come to our rescue as hoped in late spring, and rainfall across the state was 52 percent of average through the end of August. (NOAA, US Drought Monitor, Sept 13, 2011). This year may be the driest year of record for the State, ever. At the same time, temperatures were above normal this year, so the impacts of inadequate precipitation were even more pronounced. The southeastern and southwestern parts of the state have been especially hard hit, with “exceptional” drought conditions. Seventy-two percent of the state is in extreme to exceptional drought through the early part of September (NOAA, US Drought Monitor, Sept 13, 2011).

This year, across the United States, 54.25 percent of the country was in moderate drought or worse. Statewide rainfall was 60 percent of average through August, and the year was the fifth driest on record (NOAA, US Drought Monitor, Sept 18, 2012). It seems like little has changed from last year to this year. We know that farmers and ranchers and communities who depend upon surface water for their drinking water supply are facing greater water restrictions and scarcity. Soil remains depleted of moisture, and our landscape remains fragile.

My hope is that what has changed is the willingness to accept climate change as a fact. If we accept climate change as a fact, even if we are uncertain as to the specific outcomes in every sub-region of the state, then we can acknowledge:

- * Our activities result in climate change.
- * The necessity to manage our water resources with climate change as a reality, now.
- * The absolute need to plan as a community for our common water future.

I have this hope, because this year, in conjunction with last year, has brought home to all of us, not just scientists, that there is a fundamental shift in our weather. Again, we don't know what the future will hold exactly, but it seems clear that warmer temperatures and changed weather patterns are here to stay.

The Water Dialogue Annual Meeting will be held on January 10, 2013. It is an opportunity for inclusive, thoughtful discussion of our water, and our water future. Please attend.

—Reflections on Statewide Water Planning—

Updating the State Water Plan

by Angela Bordegaray



ARON RAEL—*Cont. from page 1*

And he grinned that amazing impish grin. And we did. We left it to Aron, that time and forever after until the Project spread its wings and became The New Mexico Water Dialogue, independent from Western Network. He recruited board members, bringing us invaluable acequia members, ranchers, rural community folks who were so instrumental in creating that sense of community. He organized the annual meetings. He found cooks and musicians to pitch in. He found a graphic artist to make brochures and he designed and wrote a newsletter for the project. Aron guided us so firmly yet gently in the right direction helping the project become credible, accountable and truly representative of the wide range of interests in the state. He gave the New Mexico Water Dialogue the foundation and the spirit to enable it to survive.... and thrive.

I reported to Aron that the 18th annual Dialogue meeting last January was a smashing success and the food was great, just like every meeting before it....ever since Aron's magic touch breathed life into it. He was pleased to hear it.

We miss you, Aron, our friend, wise adviser, a great voice for New Mexico, and a joy in every way.

Our state's first comprehensive water plan was developed in 2002 and published in early 2003. A dedicated bunch succeeded in convincing the New Mexico legislature to enact a statute requiring a comprehensive state water plan in 2002. Soon thereafter, the newly-elected Governor ordered the New Mexico Interstate Stream Commission (ISC) to complete the plan within the year. The statute calls for the ISC to prepare the plan in collaboration with the Office of State Engineer and the Water Trust Board. The statute also calls for a periodic review and update as needed every five years.

The ISC undertook a review and evaluation of the plan in 2008. As the plan is the *state's* water plan, the OSE and ISC involved other agencies with water responsibilities to also review the plan through participation in a governor-convened Water Cabinet. The review document identifies many changed conditions since the 2003 plan and outlined an approach and priorities for updating the state water plan. The review of the plan is worth taking a another look at, now almost five years later, as it lays out a solid approach for water planning in New Mexico. The document, "Review and Proposed Update of the State Water Plan" is on the agency's website: www.ose.state.nm.us/PDF/Publications/StateWaterPlans/SWP-Review&Update_6-26-08.pdf.

Unfortunately, sufficient resources for developing a comprehensive water plan and maintaining current regional water plans have not been made consistently available. The state water plan was funded by a special legislative appropriation in 2008, which enabled the two ISC water planners, with help from communication staff within OSE, to conduct

22 public meetings statewide and in each water planning region for the purpose of providing an overview of the state's water resources and management, as well as region-specific information about the appropriate regional water plan. We also gathered public input on key issues for inclusion in the update of the state water plan. Those comments are on the OSE website, as well: www.ose.state.nm.us/publications/state_water_plan_public_meetings_2009.

The 2009 public meetings launched the effort to update the state water plan. Since then, staff has worked internally on updating the plan. The draft update in progress includes chapters on statewide water supply and demand, water conservation, water-related infrastructure and funding, climate variability and drought planning, water administration and management and adjudication, and ecological water management. The state's major river and groundwater basins comprise the technical portion of the water plan.

A feature of the updated plan is that the basin chapters incorporate data from the regional water plans. This is in response to the state water planning statute that requires the state water plan to integrate the regional water plans as possible and appropriate. It may be that integration is the real challenge facing the state.

The ISC and OSE plan to release chapters using the OSE website later this fall. The plan is to convene affected stakeholders for certain chapters. New state engineer Scott Verhines, who believes in the value of planning, has made strengthening the OSE and ISC's water planning programs one of his goals. He has committed to finishing the state water plan update by next summer.

Water Planning in the Lower Pecos Valley

by Dick Smith

The Lower Pecos Water Users Association completed the Lower Pecos Valley Regional Water Plan in 2001. The planning process took several years with some success and some failure.

Recently we recognized the need to update the plan. We have very limited funds and realized that updating could not be completed. We did go out for proposals on a professional services contract. We awarded the contract to John Shomaker and Associates. We decided the first step would be to update the current usage of water to see what has happened since 2001. We had to suspend work on the contract due to lack of funds. The water resource assessment remains to be completed.

Our main concern is that we all believe that the demand exceeds the supply in our basin. This fact is particularly noticeable during the current drought. We have been faced with about three to six years of continuously dry weather. The last year with ample precipitation was in 2006. The current drought is as severe if not more so than the drought of the 1950s. The current situation is evidenced by:

- Wells in the Pecos Valley Artesian Conservancy District are at lower levels than in 1970 when wells were first metered and pumping was limited to 3.5 acre feet per acre.
- Carlsbad farmers received less than one foot per acre allocation.
- Mountain communities in Lincoln and Otero County are out of water.
- The Little Bear fire destroyed the watershed of Bonito Lake, which supplies about 15 percent of Alamogordo's water.
- Livestock numbers have been reduced to record lows.
- Reservoirs that supply Ruidoso are empty or at historic low levels.

The Regional Water Plan needs to have an accurate inventory of the amount of water available. It is very difficult to quantify the available supply when the amount of precipitation is so variable. In fact it could be said that the region does not have a de-

pendable, predictable climate. Instead we are plagued with annual weather events and suffer with feast or famine. It does appear that it is getting drier in the region. The question is, "How bad will it get?" It seems to me that the 2003 low precipitation of 2.85 inches in Roswell is the lowest that any place in New Mexico has ever experienced. Cloudcroft on the other hand has the greatest amount of precipitation of any reporting station in New Mexico of 26.5 inches per year. We depend on the high elevations on the west side of the region to recharge our aquifers and provide flood water for surface irrigation. We did not have a concept of how devastating fires are to the watersheds.

We recognized the need for landscape management in the Regional Water Plan, but have had difficulty in seeing good progress in this area. The need for watershed management still exists and may be even more important to other regions than to ours.

Another area that we looked at briefly was inter-basin transfers of water. The State Engineer has recently turned down two inter-basin transfers, one being from our region. It appears that this will become more important in the future. We presently have a situation where the water from Bonito Lake is piped to the Tularosa Basin and there may be another in the Las Vegas area. The two recent proposals did not appear to me to be economically feasible and also the amount of water did not seem to be available. If in our case the supply does not meet the demand it would seem that out-of-basin transfers should not be allowed. Water rights are property rights and owners of the water rights have a right to do as they see fit.

Agriculture is by far the largest user of water rights in our region. Most of these rights have been adjudicated. Adjudication involves:

- A determined point of diversion
- A priority date when the water is first put to beneficial use
- A duty or amount of water which can be used.

In our region at least 93 percent of the water rights have been adjudicated. Having the water rights determined aids in the planning process.

Some form of measurement or metering is important to determine how much water is being used in the planning region. It is an unpopular but needed step to develop the regional plan.

Another recent development is a bill moving through Congress dealing with Indian Water rights. The Legislation would allow tribes to lease their water rights. The questions that arise are, do they have more water rights than they have been using? Will exercise of these water rights by the leasing entities create further strain on limited resources?

At our last meeting September 21, 2012, we lacked having a quorum. An important issue is maintaining interest and involvement in developing and implementing the plan. When we developed the first plan, we were all concerned about meeting the Pecos River compact. Not meeting the Pecos River Compact could have caused a priority call on our junior and senior water rights. Our concern that the effects of the priority call would have been devastating to the economy of the Pecos Valley motivated the Lower Pecos Water Users Association to meet regularly and develop the Regional Water Plan.

We have 17 alternatives in the Regional Water plan. Alternative number 2 is a managed well field which eventually became the Settlement Agreement. At the time we felt that the Settlement Agreement had the potential to offset many of our water shortage problems. Our concerns now have shifted to the severity of long term drought and its effect on our region.

Our state has many problems associated with a lack of available water for all users. Regional water plans may not solve all of these problems. But the plans at least emphasize the problems and for this reason it would be beneficial to the state to fund planning efforts.

New Mexico's Middle Rio Grande Water Melee

by Frank B. Titus, Ph.D.

This is about the river and the water resources of the largest of New Mexico's five master streams. It is about the Rio Grande, and about the mess we've made as we managed surface and groundwater solely for our own benefit.

From Colorado, the Rio Grande flows southward some 400 miles down its broad rift-faulted valley in New Mexico. In a river valley like the Middle Rio Grande, the river that flows down valley on the surface, and the groundwater that saturates the porous and permeable sediment filling the valley beneath the surface, are the two intimately interconnected parts of the same hydrologic system. Because the river does not have sufficient surface water to meet all the demands placed on it, water users have become dependent on the groundwater in the river's great faulted-rift valley – water once plentiful but which has become depleted and no longer capable of meeting the constant demands. (Albuquerque a couple of years ago finally drew the water table of its bountiful aquifer so far down that it was the first to begin using surface water out of the river.)

Meanwhile, every city seeks the economic magic of growth, resulting in ongoing population increases that mean each city must continuously have more water. In the Middle Rio Grande valley, there are many water demands on the water from the river. Irrigation has been an ongoing activity in the valley for a very long time—a time that can be measured in hundreds of years. Some irrigation water rights have been established that date to back to the very early days of irrigation. Many have been established as predating the year 1907—the earliest year used by the Office of the State Engineer for the valley. While documentation of those early dates hasn't been demonstrated for all water rights claims, it is likely that valid claims do exist for a very large percentage of the long-term irrigated lands of the valley.

This river also serves a disproportionately large share of the state's population. When Albuquerque needed additional wa-

ter, it was permitted to drill wells with pumping capacities that exceed the water rights the city owns. In such cases the city promises to obtain the rights before production pumping is started. This resulted in two different kinds of rights: one based on legal ownership and the other based on a promise to obtain the valid right, often without even assuring that such rights will exist when needed.

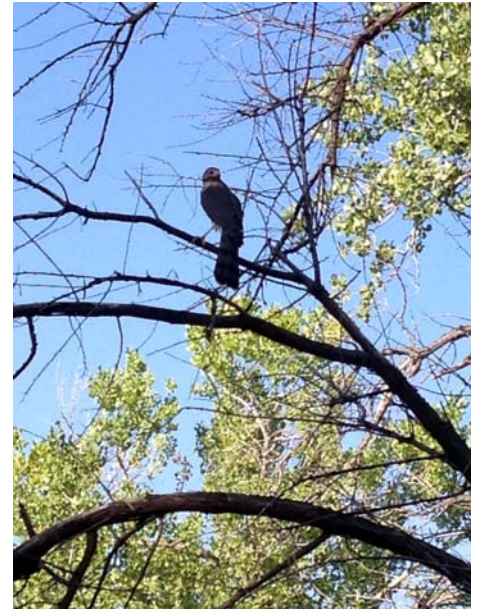
What this clearly shows is that the sum of surface-water rights and permits, plus groundwater rights and permits, plus rights and permits for domestic wells, now exceeds the average volume of surface water and groundwater coming down the river valley.

I don't believe there are new sources of water to meet the projected demand. "Deep" water would require treatment at a cost that exceeds the financial capacity of our cities. Water from other areas is needed there and likewise the expense of getting the water to where it is needed would be financially prohibitive. Compacts also impose limitations on water use.

That means the whole system, including the river, would dry up if all current rights were activated. Yet everyone seems so confident. No one seems worried that "growth" as we know it will have to end. The system just described contains the nucleus of what may or may not prove to be an intractable political conflict.

New Mexico, embedded as it is in the great semi-arid southwestern part of the U.S., has highly variable weather annually, and also experiences cycles, typically of two (more or less) decades in duration. What "normal" will be in a future dominated by global warming, as most informed scientists expect, we will see. The scientist's predictions, in addition to "warmer," include more frequent weather extremes, generally less precipitation, and almost surely greater evaporation.

The melee over managing New Mexico's water involves many interest groups both inside and outside state government. In many respects it revolves around, or sub-



stitutes for, policy on state-wide water management. The various overlapping, often conflicting guidelines, regulations, demands, and pleas can seemingly come from any or every direction.

One characteristic of state water policy, including the state water plan, is that it has successfully avoided addressing an underlying reality that demand for water needs to stay within the limits of the state's available and sustainable surface and ground water resources. It may be that given all the existing constraints, we can do almost nothing that will, in any reasonable length of time, bring sufficient balance between supply and demand, at least in the Middle Rio Grande valley.

Given the probability that global climate change will involve continuing warming, there is a real probability that water use will have to be reduced below its present level. The alternative probability, that climate will cool, thus providing additional supplies of water, appear diminishingly small. Optimism is okay, but not a substitute for pragmatic policy.

New Mexico First Town Hall Urges Water Planning for the Future

by Consuelo Bokum

The New Mexico Centennial Town Hall, convened by New Mexico First in March 2012 in Albuquerque, asked participants to evaluate the state's past and future. A report prepared for the meeting focused on four key "indicators": education, economy, health and energy. After two days of deliberation, the participants developed several recommendations that they felt were urgent needs for the future.

The recommendation with the highest level of support was: "Update existing state and regional plans to develop a comprehensive, long-range, statewide strategy for New Mexico's surface and groundwater. The update should address the urgent need for conservation, sustainability, and water quality." This result is particularly impressive since water was not mentioned in the report prepared for the Town Hall.

Other reforms recommended by the Town Hall included an education system that prepares children for careers of the future, comprehensive strategies for meeting our water and energy needs, and policies that grow our state's economic base.

Many thanks to NM First and the Town Hall participants for their strong advocacy for water planning. NM First is now advocating for water planning statewide and will lobby for funding for water plan updates in the coming legislative session.

Reflections on Water Planning 1993 to 2009

The New Mexico Water Dialogue had focused on water planning since its inception in 1993. Here are some reflections from the NM Water Dialogue newsletter from 1993 through 2009. The quotes are hopeful, thoughtful, cautious, and often compelling.

One by-product of this process will be a better informed public that can engage in a more meaningful policy dialogue on our state's most precious but limited resource. August 1993

Substance and process can't be separated in public decisions. How we decide, as a people, will determine what we decide. October 1993

We New Mexicans can congratulate ourselves on this creative activity among challenged citizens, overtaxed agency staff, academics far from the safety of their intellectual turf, and public officials who are getting little pay and less appreciation, all devoting long hard hours to understanding the natural, social and political water-based ecology of our communities, and to asking the core questions: "What on earth should we do now?" February 1994

A frightful gridlock of shortages, conflicts, priorities and injunctions is forcing us to the realization that we must take part in community or perish. October 1995

Great good can come of simply communicating. March 1996

The more who join the conversation, the richer the exchange becomes. The only encumbrance is silence, for into a vacuum all manner of misconceptions pour. May 1995

The true worth of Regional Water Planning is evident in a flourishing respect for cooperation and consensus that today seems at least as prevalent as the old readiness to fight for the right to water. November 1996

Hostility isn't inevitable when it comes to water; it is simply our default setting. September 1998

In reality, positions of the middle ground far outnumber those on either end, and others – quirky or brilliant – hover well outside the average range. When we process information in terms of "both sides," we rob ourselves of every shade that is not black or white. May 1999

Balance among water interests at every level of planning is essential to have support for implementation of the plan. January 2002

New Mexico needs the determination to live within its means and to make some tough choices in order to ensure continuity of water supplies and to preserve a New Mexico we all want to live in. Fall 2008

Certainly, planning is an important tool for evaluating problems ahead of time and deciding on solutions. Summer 2009



**New Mexico Water Dialogue
19th Annual Meeting
January 10, 2013
800am-4:30pm
Indian Pueblo Cultural Center
2401 12th St. NW, Albuquerque, NM 87104**

***Reviving Water Planning:
Successes, Challenges and Opportunities***

Registration includes lunch catered by the Indian Pueblo Cultural Center and morning and afternoon beverages and snacks. By registering early, you help us plan for these items, and we offer substantial discounts. The simplest way to register for the 19th Annual Statewide Meeting is to go online to <http://nmwaterdialogue.org> and click on the Register Now button. (Credit cards can be used online only.) Alternatively, you may fill out this form and mail it with a check or Purchase Order to NMWD, c/o John Brown, PO Box 1387, Corrales, NM 87048. The registration fee after January 7 is \$45 and will need to be paid at the door the day of the meeting.

Early Registration Form

Name(s) _____

Organization (optional, except for purchase orders) _____

Title or position (optional) _____

Address (street or box) _____

City, State, Zip _____

Contact email _____ Phone _____

I/we want to:

Register for the 18th Annual Statewide Meeting

___ member(s) @ \$30 until Dec. 14; \$35 until Jan. 7, 2013.

___ non-member(s) @ \$35 until Dec. 14; \$40 until Jan. 7, 2013 Amount included: \$ _____.

Become a member of the NM Water Dialogue (includes 1-year subscription to *Dialogue*).

___ Individual \$20;

___ Representative of non-profit organization \$40

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Make a tax-deductible contribution to the Dialogue. Amount included: \$ _____.

Payment options: A check is enclosed. Total amount: \$ _____.

Our organization will pay. Invoice our P.O. # _____ for \$ _____.

Payment is being mailed separately (must arrive by January 7, 2013).

I (We) will pay (\$40 for members; \$45 for non-members) at the door.

If you wish to receive Dialogue electronically, check here: (Include email address above.)



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DRAFT AGENDA

- 8:00a.m. Registration
- 8:30a.m. Introductions/Opening Remarks
- 9:00a.m. Keynote Speaker: Dr. Lowell Catlett, Regent's Professor/ Dean and Chief Administrative Officer of New Mexico State University's College of Agriculture, Consumer and Environmental Sciences
- 10:00a.m. Break
- 10:15a.m. Panel – Regional Water Planning Successes
- 12:00p.m. Lunch
- 1:00p.m. Panel: Regional Water Planning Challenges
- 2:45p.m. Break
- 3:00p.m. State Water Plan and Regional Water Plan Updates
- 4:00p.m. Closing Remarks: Future Steps
Board nominations

Please check www.nmwaterdialogue.org for additions and changes to the agenda.

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