

**MINUTES  
of the  
FOURTH MEETING  
of the  
WATER AND NATURAL RESOURCES COMMITTEE**

**September 7-8, 2004  
Chamisa Room, Sagebrush Inn  
Taos**

The fourth meeting of the Water and Natural Resources Committee was called to order at 10:15 a.m. on Tuesday, September 7, 2004, by Senator Carlos R. Cisneros, vice chair.

**PRESENT**

Rep. Joe M Stell, chair  
Sen. Carlos R. Cisneros, vice chair  
Sen. Sue Wilson Beffort (Sept. 7)  
Sen. Mary Jane M. Garcia  
Rep. Dona G. Irwin  
Rep. Larry A. Larranaga  
Rep. Andy Nunez  
Rep. Mimi Stewart

**ABSENT**

Sen. Joseph J. Carraro  
Rep. Joseph Cervantes  
Sen. Dede Feldman  
Rep. James Roger Madalena  
Rep. Brian K. Moore  
Sen. Mary Kay Papen  
Sen. Shannon Robinson  
Sen. H. Diane Snyder  
Rep. Don Tripp  
Rep. Robert White

**Advisory Members**

Rep. Anna M. Crook  
Rep. Rhonda S. King (Sept. 8)  
Rep. Ben Lujan (Sept. 8)  
Rep. Danice Picraux (Sept. 8)  
Sen. Nancy Rodriguez  
Rep. Henry Kiki Saavedra  
Sen. Leonard Tsosie (Sept. 8)  
Rep. Peter F. Wirth

Rep. Ray Begaye  
Sen. Gay G. Kernan  
Sen. Clinton D. Harden, Jr.  
Sen. Timothy Z. Jennings  
Sen. Steve Komadina  
Sen. Leonard Lee Rawson  
Rep. Eric A. Youngberg

(Attendance dates are noted for those members not present for the entire meeting.)

**Staff**

Jon Boller  
Gordon Meeks  
Jeret Fleetwood

**Guests**

The guest list is in the original meeting file.

**Tuesday, September 7**

**MOLYCORP SLOPE STABILITY UPDATE**

Bill Sharer, vice president of Environmental Services and Public Affairs for Molycorp, provided the committee with an update on his company's efforts to stabilize the sliding rock pile on Goat Hill North, at the company's molybdenum mine near the Village of Questa. He explained that monitoring has shown that part of the rock pile has slowly been sliding downhill for the past 33 years, and that while some debate exists over whether the pile presents a danger to Questa or to State Highway 38, Molycorp has begun efforts to stabilize the slope. He also noted that a good portion of the slope is quite stable. Mr. Sharer explained that Molycorp's slope stabilization plans have four major components: installation of crushed rock at the base of the slope to form a drain for water runoff from Goat Hill North, movement of part of the stable portion of the slope downhill to form an initial buttress, movement of the unstable portion of the slope downhill to form the final buttress and surface water controls and monitoring of the whole buttress and slope to ensure that no further sliding occurs.

Questions and comments from the committee included:

- thickness and size of the rock pile;
- number of employees at the mine, both involved in mining and slope stabilization;
- revegetation of the slope;
- progress made to date on slope stabilization plans;
- history of mining in the Questa area and its economic impact;
- who developed the slope stabilization plans; and
- uses of molybdenum.

**STATE WATER TRUST BOARD ACTIVITY UPDATE**

Eileen Grevey-Hillson provided the committee with an update on the recent activity of the Water Trust Board. Ms. Grevey-Hillson noted that the board is reviewing 28 projects and that each is a phased project that will ultimately cost millions of dollars. She explained that state support of the initial phases of these projects means that it will be difficult for the state not to continue supporting them for years to come, even as a water project financing crisis looms for the state. To illustrate, she noted that stricter water quality standards, such as those for arsenic, and the deterioration of a large number of municipal water systems that were installed roughly 50 years ago will place an even greater burden on New Mexico and most other western states to adequately fund water projects. However, she also pointed out that Senator Domenici and Senator Bingaman are both members of the Senate Energy Committee, which places New Mexico in a good position to be able to obtain federal dollars for water projects. She said the total cost of critical water project needs is \$5 billion over the next couple of decades.

Questions and comments from the committee included:

- criteria used for choosing the 28 projects that were approved;
- potential funding sources for water projects;
- wastewater treatment; and
- projects in southern New Mexico and the potential for help with funding from the

Border Environment Cooperation Commission, the World Bank and North American Development Bank.

## **ACEQUIA ISSUES**

Paula Garcia, New Mexico Acequia Association (NMAA), discussed various acequia issues with the committee. First, she outlined issues the NMAA would like to see addressed in the 2005 legislative session. Second, Ms. Garcia provided the committee with an update on water policy issues in New Mexico concerning acequias.

The first issue that Ms. Garcia said that the NMAA would like to see addressed during the 2005 legislative session is acequia enforcement. She explained that acequia associations are permitted by statute to levy civil fines against acequia users who violate the bylaws, rules or regulations of their acequias; but she noted that a fine of \$10.00 to \$50.00 does little to deter people from continued violations.

Donald Gallegos, Taos district attorney, also discussed acequia enforcement with the committee. He recalled cases in which developers had unknowingly damaged a ditch or an individual had knowingly interfered with a ditch or acequia, noting that in most cases the fine is simply too small to act as an effective deterrent. Mr. Gallegos suggested that the legislature consider providing some type of injunctive relief to acequia associations so that they might better be able to enforce their rules.

Barbara Martinez, assistant district attorney was Taos, said that the authority for district attorneys to represent acequias in court is unclear. She noted that while that authority has not been questioned to date, some district attorneys do not represent acequias in court because the statute identifying the entities they may represent does not explicitly mention acequias. She suggested that it might be wise to add acequias to the language in that statute. Ms. Martinez also underscored the remarks of Ms. Garcia and Mr. Gallegos that civil fines for acequia violations are too small. She suggested that if the legislature was reluctant to provide injunctive relief to acequias, it might consider increasing the penalties for subsequent violations, perhaps making them so high as to equal injunctive relief.

The second issue Ms. Garcia mentioned was the transferability of domestic well water rights. She explained that the State Engineer's Office (SEO) had for years allowed the transfer of a water right from a domestic well to a community well serving a mutual domestic water consumers association (MDCWA), but had recently reversed that policy and disallowed such transfers. Ms. Garcia explained that not allowing domestic well rights to be transferred to MDCWAs will force the MDCWAs to place an even greater burden on local acequias to provide water to its users than already exists. She suggested that the legislature consider clarifying state statutes to explicitly recognize the transferability of domestic water well rights.

David Benavidez, New Mexico Legal Aid, also spoke to the committee regarding water policy issues of concern to acequias. The first of these issues involved the Active Water Resource Management (AWRM) regulations proposed by the SEO. Mr. Benavidez explained that his concerns regarding the AWRM regulations have more to do with their legality than with the SEO not listening and trying to address concerns. He discussed a 1994 opinion of the attorney general regarding water rights dedications in which the attorney general stated that such dedications were illegal. Mr. Benavidez explained that part of the AWRM regulations, called replacement plans, were very similar to those water rights dedications. He also expressed hope that the protection of prior appropriation customs will be maintained under the AWRM regulations. Mr. Benavidez went on to raise concerns about the AWRM regulations giving the SEO the power to decide on water rights in undeclared basins, noting that that power is usually reserved for the courts. Finally, Mr. Benavidez and Ms. Garcia discussed the project delivery requirements of the AWRM regulations. They explained that those requirements likely will need to be revised to recognize the need of acequias to divert enough water to provide adequate hydraulic head for them to irrigate efficiently. They also suggested that metering unadjudicated amounts of water at acequia diversions would be difficult.

Paul Saavedra, SEO, told the committee that the state engineer has not reversed the policy on water rights transfers.

Questions and discussion of the committee addressed:

- the fact that the minimum fine to a mayordomo for not enforcing the law is more than the minimum fine for someone who violates the law;
- the difference between a ditch rider and a mayordomo;
- the lack of authority for a magistrate court to provide injunctive relief and the requirement that prosecution of water violations occur in magistrate court;
- sources of financing acequias' maintenance;
- contradiction between statutes that refer to acequias as political subdivisions and those that define them as corporations;
- the role of the state's Risk Management Division in defending acequias as political subdivisions;
- lack of public hearings when the SEO changed its policy to disallow transfers of acequia water rights to mutual domestic wells;
- protocols for acequia members to receive delivery of water;
- development pressures on acequias and interference with water flow and ditch operations;
- cooperation and sharing agreements among multiple acequias diverting from the same stream;
- who is taking the water from the acequias — the spectrum includes newcomers and oldcomers;
- the potential for re-codification of all the acequia statutes;
- the need for enhanced penalties for acequia law violations; and
- injunctive relief to prevent construction of head gates or removal of head gates.

## **MUTUAL DOMESTIC ASSOCIATIONS' WATER RIGHTS**

Mary Humphry, an attorney, provided the committee with further comment regarding the SEO's decision not to allow the transfer of domestic well water rights to community wells serving MDCWAs. She began by listing the problems created by a large number of individual domestic wells: quality issues created by leaking septic tanks and individual wells being located too closely to one another; forthcoming Environmental Protection Agency regulations that will impose even stricter water quality standards; and the impact of the proliferation of these wells on surface water flows. She contrasted those problems with the benefits of community wells used by MDCWAs: a water supply whose quality is easier to monitor and maintain; potentially increased surface flows resulting from discontinued use of shallow individual wells; and the tendency of community water systems to pay for themselves from user fees after the initial infrastructure is laid down. She also noted that MDCWA community wells are often the only way for some communities to get water. Ms. Humphry then pointed out that the benefits of one system providing safe water for a community seem to indicate that communities need to be able to bundle their individual water rights together for a community well and that transfers, such as those the SEO is now denying, are a good way to do that.

The committee asked if there is a difference between the acequia position and the mutual domestics and if private well owners had a common desire to keep domestic wells and hook up to a community system.

## **CLOUD SEEDING**

Sig Silber, president of the New Mexico Weather Modification Association (NMWMA), and Walt Chapman, secretary and treasurer of NMWMA, provided the committee with an overview of their proposed cloud-seeding project. Mr. Silber explained that supercooled moisture exists in most clouds, but that updrafts are often too strong for it to fall as precipitation. He went on to explain that cloud seeding consists of introducing a catalyst, often silver iodide, into the clouds to induce the supercooled moisture to fall to the ground as precipitation. Mr. Silber pointed out that the two main ways of introducing the catalyst into the clouds are by ground-based burners that use updrafts to carry the catalyst into the clouds, or by aircraft that drop the catalyst into the clouds. He noted that both methods require a fair amount of precision and that their proposed cloud-seeding project would initially employ both methods to determine which one provides the greater benefit. Mr. Silber showed the committee the areas of the state the NMWMA plans to conduct cloud seeding and noted that the plan is to seed clouds during the winter to try to increase the snowpack in those areas. He also cited the success that cloud-seeding projects have had in places such as Climax, Colorado, the Jemez Mountains, Tasmania and Israel. Finally, he assured the committee that employing cloud-seeding technology only takes a very small amount of moisture out of the air, so the procedure is not likely to drastically change area weather patterns, and that silver iodide is poisonous but used in such small amounts that traces of it cannot be found in the snow, water or soil of areas where cloud-seeding projects have occurred.

Mr. Chapman pointed out that the entire west is in a drought and that it would be shortsighted not to employ every method available for help. He also noted that great scientific

advances have made cloud-seeding technology both more feasible and more efficient.

Questions and comments from the committee included:

- effects of silver iodide on environment;
- winter versus summer cloud seeding;
- other potential seeding agents;
- funding contributions from farmers who would benefit from increased precipitation; and
- accuracy of attempts to increase precipitation in target areas.

## **WATER PROJECT FINANCING**

Mark Valenzuela, New Mexico Finance Authority (NMFA), provided the committee with a brief history of the NMFA, an overview of how the governmental gross receipts tax provides the NMFA with funding and a listing of the various NMFA funds. He explained that one of the primary functions of the NMFA is to help communities get funding for infrastructure. He went on to discuss several of the NMFA funds that are available for such infrastructure improvements, particularly the Public Project Revolving Fund. Mr. Valenzuela explained that the Public Project Revolving Fund establishes the NMFA as a bank, offering loans to local governments and various other entities, and that providing loans to different categories of borrowers affects the amount of money the NMFA has available to loan. He concluded by showing how loaning money to borrowers who are unlikely to be able to pay off their loans and by simply offering grants could actually hurt the NMFA's ability to help finance large-scale water projects.

Questions and comments from the committee included:

- role of the NMFA as the fiscal agent for the governor's Water Innovation Fund and Water Trust Board;
- duplication of projects in the governor's Water Innovation Fund, Water Trust Board and Public Project Revolving Fund;
- amount of loans already paid back to NMFA;
- term length of loans (normally 10 years);
- the amount of loans to Albuquerque's water authority;
- qualifications for the bond rating agencies' categories; and
- the status of the Primary Care Capital Fund.

## **STATE ENGINEER'S OFFICE STATUS REPORT**

Anne Watkins, special assistant to the state engineer, provided the committee with an update on water issues within the SEO and the executive branch. She noted that although the amount of money requested for funding water projects is much greater than the amount of money available, the Water Trust Board, capital outlay and various grants and loans provide close to \$50 million per year for water projects. However, Ms. Watkins noted that most of that money goes toward projects such as cleaning out water storage tanks or replacing old valves rather than toward long-term, sustainable projects. She noted that there is a need to strategically invest in water projects and emphasized the necessity of regionalization of water and wastewater funds,

cutting down on the duplication of infrastructure within those regions and developing maintenance programs for water infrastructure.

Questions and comments from the committee included the funding responsibility of local entities.

The committee recessed at 4:50 p.m.

### **Wednesday, September 8**

#### **WATER RESOURCE MODELING — LANL**

Charles Nylander, program manager for the Risk Reduction and Environmental Stewardship Division at Los Alamos National Laboratory (LANL), provided the committee with an overview of a modeling project begun by LANL to better understand the hydrology of the Pajarito Plateau. He explained that geologic and hydrologic data were collected from deep wells dug across the plateau and that the model created from that data was part of a larger model of the entire Espanola Basin Aquifer. Mr. Nylander noted that the Espanola Basin Aquifer Model has been used to evaluate the impact of contaminants from LANL on the aquifer, to predict the impact of sustained drought and pumping on aquifer storage and to estimate the impact of municipal pumping on water levels in nearby wells.

Dr. Elizabeth Keating, Earth and Environmental Sciences Division, LANL, discussed how aquifer modeling at LANL has led to collaborations with federal and state agencies such as the USGS, NMED and Santa Fe County. She noted that there are ongoing discussions with the SEO and the Interstate Stream Commission. Dr. Keating also noted that the modeling has shown that an increase in pumping of aquifer water could lead to an increase in naturally occurring uranium in the water. She also pointed out that one of the functions of the model, which shows the "age" of aquifer water, indicates that older water in the Espanola Basin tends to develop problems, such as larger concentrations of fluoride in the water.

Questions and comments from the committee included:

- inclusion of surrounding Native American lands into the model of the Espanola Basin;
- use of the Espanola Basin Aquifer Model in the *Aamodt* settlement;
- collaboration between LANL and the acequia communities;
- effects of fire and runoff on the aquifer;
- possibilities for removal of arsenic from aquifer water; and
- overabundance of fluoride in Espanola Valley water.

#### **WATER RESOURCE MODELING — SANDIA NATIONAL LABORATORIES**

Mike Hightower, Energy and Infrastructure Systems staff member, Sandia National Laboratories (SNL), provided the committee with an overview of several of the water modeling projects currently underway at SNL, including an initiative to work on arsenic levels in water, a large-scale desalination project and a national weather technology research initiative involving

both LANL and SNL.

Howard Passell provided the committee with a demonstration of water modeling software developed by SNL. He showed how changes in a number of variables, such as population growth, drought, consumption of water and acreage covered by agricultural crops, would likely affect New Mexico's ground water resources and the ability to make compact deliveries. Mr. Passell demonstrated the use of the modeling software to show the committee that New Mexico will not meet its compact delivery obligations over the next 50 years if water use and population growth patterns continue in the current trend.

Questions and comments from the committee included:

- use of modeling software as a precautionary tool;
- involvement of entities from southern New Mexico in development of the software;
- demonstration of the software to show the impact of potential scenarios on compact deliveries and ground water resources;
- scenarios that were developed for the Middle Rio Grande Water Assembly when it used the software; and
- factoring in of political agreements triggered by compact delivery shortfalls into the software.

#### **DOMESTIC WELLS AND WATER SUPPLY DEPLETIONS**

Patsy Sanchez, director of the Lincoln County Planning Office, outlined water supply problems in Lincoln County caused by drought, watershed health and development. She pointed out that similar problems face New Mexico as a whole and suggested that the legislature consider metering all new domestic water wells, give the state engineer the power to condition domestic well permits, provide funding for each county to perform a water inventory, change water rights language regarding beneficial use and make changes to the New Mexico Subdivision Act to help local governments make better use of water resources.

Dr. William S. Midkiff echoed Ms. Sanchez's comments, adding that designating the Ruidoso area as an active water resource management area could provide tremendous help toward that area being able to protect surface and ground water resources. He also suggested that a more creative application of the term "public welfare" could help communities such as Ruidoso better manage their water resources without having to ask the legislature to change the law.

Brian Wilson, a retired engineer from the SEO, underscored the comments of Ms. Sanchez and Dr. Midkiff. He also noted that domestic wells, which require no water rights, have impaired the SEO's ability to administer water and that subdivision wells have impaired surface waters and stream systems throughout New Mexico. Mr. Wilson warned that unchecked growth will likely drive New Mexico toward having an unsustainable civilization.

The committee discussed the implications and problems of centralizing power over water resources and development in the SEO and the potential for moving water from areas with a

surplus to areas in critical need of water.

### **INDIO HISPANO ACADEMY**

Feliz Mauro Torres, executive director, Indio Hispano Academy, provided the committee with a brief history and overview of the academy, including how it farms vegetables in Albuquerque's South Valley for sale at the local South Valley Grower's Market. He explained that such exercises provide youth with firsthand knowledge of the value of water resources. Mr. Torres went on to outline future academy projects, including a hydroponic greenhouse project in conjunction with SNL, expansion of the South Valley Grower's Market, implementation of the academy's programs into a larger scale of sustainable agriculture, economic development in the predominantly poor Albuquerque South Valley and promotion of better eating and nutrition.

Questions and comments from the committee included:

- re-use of water in hydroponic systems; and
- how the legislature can help the academy reach its goals.

There being no further business, the committee adjourned at 1:15 p.m.