

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

**October 12-13, 2017
Ballroom B, Fidel Center
New Mexico Institute of Mining and Technology
Socorro**

The fourth meeting of the Water and Natural Resources Committee was called to order by Senator Joseph Cervantes, chair, on October 12, 2017 at 10:15 a.m. in Ballroom B of the Fidel Center at the New Mexico Institute of Mining and Technology (NMIMT) in Socorro.

Present

Sen. Joseph Cervantes, Chair
Rep. Bealquin Bill Gomez, Co-Vice Chair
Rep. Matthew McQueen, Co-Vice Chair (10/13)
Rep. Gail Armstrong
Rep. Paul C. Bandy
Rep. Randal S. Crowder
Rep. Derrick J. Lente
Rep. Rodolpho "Rudy" S. Martinez (10/13)
Sen. Sander Rue
Sen. Benny Shendo, Jr. (10/12)
Rep. Nathan P. Small (10/12)
Sen. Jeff Steinborn
Sen. Mimi Stewart
Rep. James R.J. Strickler
Rep. Carl Trujillo
Sen. Pat Woods
Rep. Bob Wooley

Absent

Sen. Cliff R. Pirtle

Advisory Members

Sen. Carlos R. Cisneros
Rep. Rebecca Dow (10/13)
Rep. Candy Spence Ezzell
Rep. Harry Garcia (10/12)
Rep. Yvette Herrell
Rep. D. Wonda Johnson
Rep. Larry A. Larrañaga
Rep. Rick Little
Rep. Sarah Maestas Barnes (10/12)
Rep. Bill McCamley (10/12)

Sen. Craig Brandt
Sen. Pete Campos
Rep. Sharon Clahchischilliage
Rep. George Dodge, Jr.
Rep. Brian Egolf
Sen. Ron Griggs
Sen. Stuart Ingle
Sen. Gay G. Kernan
Sen. Carroll H. Leavell
Sen. Linda M. Lopez

Sen. Cisco McSorley
Rep. Greg Nibert
Sen. Gerald Ortiz y Pino (10/12)
Sen. Mary Kay Papen
Rep. Debbie A. Rodella
Sen. Nancy Rodriguez
Sen. Peter Wirth

Rep. Javier Martínez
Sen. Steven P. Neville
Rep. Angelica Rubio
Rep. Patricio Ruiloba
Rep. Tomás E. Salazar
Sen. William E. Sharer
Sen. John Arthur Smith

Guest Legislators

Rep. Kelly K. Fajardo (10/13)
Rep. Jason C. Harper (10/13)
Rep. Rod Montoya
Rep. Larry R. Scott
Rep. James G. Townsend

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

Staff

Jon Boller, Legislative Council Service (LCS)
Shawna Casebier, LCS
Jeret Fleetwood, LCS
Sara Weidmaier, LCS

Guests

The guest list is in the meeting file.

Handouts

Handouts and other written testimony are in the meeting file.

Thursday, October 12

Call to Order and Welcome

Senator Cervantes began the meeting by having members of the committee introduce themselves to the audience.

Stephen G. Wells, president, NMIMT, welcomed the committee to Socorro, provided the committee with an overview of the university's operations and thanked the committee for coming.

Before the committee began its agenda, several members raised the issue of the sudden resignations of three interstate stream commissioners, Caleb Chandler, James Wilcox and Jim Dunlap, as well as the departure of several senior water policy staff members, including the director, of the Interstate Stream Commission (ISC). Senator Cervantes noted that the

resignations come at a particularly bad time, as the United States Supreme Court earlier in the week denied New Mexico's motion to dismiss Texas' complaint against New Mexico concerning water deliveries to Texas under the Rio Grande Compact.

Watershed Restoration Program Update and Response to House Memorial 99 and Senate Memorial 124 (2017 Regular Session)

Laura McCarthy, director of conservation programs, The Nature Conservancy, provided the committee with an update regarding watershed restoration programs. She noted the importance of watershed restoration, explaining that wildfires have produced significant amounts of sediment, which then washes into rivers and has had a negative impact on several New Mexico communities.

Brent Racher, president, New Mexico Forest Industry Association, explained that recent massive wildfires have had an estimated \$1.5 billion impact on the state. He noted that watershed restoration, particularly forest thinning and controlled burns, helps to mitigate the effects of wildfires. Mr. Racher also said that restoration efforts have to take place across watersheds, regardless of land ownership.

Ms. McCarthy explained that state funds for restoration have been used to leverage federal funds, resulting in a watershed workforce that has grown to 330 employees working 10 months per year on restoration projects. She noted that increased funding has also led to a massive increase in thinning projects and prescribed burns, with still more projects in the planning stages. Ms. McCarthy highlighted agreements between Bernalillo County and the Middle Rio Grande Conservancy District (MRGCD) as an example of cross-agency collaboration on watersheds projects.

Mr. Racher and Ms. McCarthy both noted that differing interpretations of the Constitution of New Mexico's Anti-Donation Clause could present an obstacle to using public money to the benefit of private land, regardless of the public benefit that watershed thinning represents. They stated that the issue prevents many projects from getting past the planning process. Mr. Racher and Ms. McCarthy explained that this issue was also a driving force behind House Memorial 99 and Senate Memorial 124 (both from the 2017 regular legislative session), which directed Governor Susana Martinez and the attorney general to conduct meetings to develop a consistent application of the law governing the use of public funds for watershed restoration projects on any lands within the state. They went on to note that meetings between stakeholders and state agencies identified the critical need for cross-boundary management of land and suggested that a solution to the issue of the Anti-Donation Clause and use of public money on private land would be to seek an attorney general opinion on the matter.

Questions and comments from the committee included the following:

- soil and water conservation districts routinely conduct watershed restoration projects that benefit private lands;

- stakeholders have not yet begun to seek an amendment to the Constitution of New Mexico regarding the Anti-Donation Clause;
- the shrinking of the timber industry in New Mexico and fewer sawmills;
- several studies have drawn a link between rising global temperatures and catastrophic wildfires;
- controlled burns do create air quality issues, but they tend to be a short-term imposition in order to address a larger problem;
- thinning projects are under way in various parts of the state;
- the important role of the United States Forest Service in land management; and
- that the federal National Environmental Policy Act of 1969 process can take anywhere from 18 months to six years to complete.

On a motion made, seconded and passed, the committee directed staff to work with stakeholders to draft a letter to the attorney general seeking an opinion on whether the incidental benefits to non-state-owned lands from watershed restoration projects violate the Anti-Donation Clause and asking for a response in a reasonable amount of time.

Senator Cervantes explained that he planned to deviate from the agenda in order to hear an update regarding developments on litigation between New Mexico and Texas. He said that New Mexico had filed a motion to dismiss the case but that the special master assigned to the case recommended the motion be denied, and the United States Supreme Court later denied the motion.

Tessa Davidson, an attorney representing pecan growers, provided the committee with additional updates regarding amicus parties to the suit and motions by various parties seeking to intervene, including a motion by the federal government to join the case, which has not yet been granted but will be argued in the court in the near future. She noted that the court's calendar is full for the remainder of 2017 and that she expects the federal motion to be argued in early 2018.

Questions and comments from the committee included the following:

- additional details regarding New Mexico's motion to dismiss and the court's denial of the motion;
- that Elephant Butte Irrigation District and El Paso County Water Improvement District Number One were denied intervenor status because United States Supreme Court cases typically concern litigation between states, making it difficult for parties that are not states to join;
- involvement of the federal government in the case could set a precedent regarding jurisdiction over ground water resources in many western states, which could prompt other states to file amicus briefs in the case; and
- possible outcomes in the case.

Oil and Gas Research at NMIMT

Dr. Nelia Dunbar, director and state geologist, NMIMT, provided the committee with an overview of the New Mexico Bureau of Geology and Mineral Resources, explaining its role as a non-regulatory government agency that conducts scientific investigations leading to responsible economic development of the state's resources. She also noted the bureau's research activities and its efforts to distribute accurate information in the form of maps and reports available to decision makers and the public, both physically and on the internet.

Dr. Ron Broadhead, senior principal petroleum geologist, New Mexico Bureau of Geology and Mineral Resources, NMIMT, provided the committee with an overview of oil and gas research at NMIMT. He began by highlighting the bureau's areas of activity, including data collection and archives, service to industry and the public, applied research projects, educational activities and petroleum staffing. Dr. Broadhead noted the school's core collection that features cores from 1,433 drill holes, including oil and gas cores, mineral cores and various other cores. He also noted the school's cuttings collection of over 50,000 cuttings from 16,639 drill holes, representing 150 million feet of drill holes. He explained that both collections are used by industry, researchers and students. Dr. Broadhead discussed the school's subsurface library, which contains data from oil and gas wells, uranium wells, deep water wells and a host of other data regarding subsurface resources across New Mexico. He went on to discuss some of the current research the bureau is conducting in both the Permian Basin and in Sandoval County, as well as research regarding environmental and societal concerns regarding petroleum production.

Robert Balch, director, Petroleum Recovery Research Center (PRRC), NMIMT, provided the committee with an overview of the PRRC, including its location, history and relationship with NMIMT. Mr. Balch also discussed the PRRC's finances, noting that while the state provides a base budget, other research, particularly federally funded research, accounts for a significant portion of its overall budget. He also discussed various PRRC research projects, including 12 active federally and industry-funded projects that were active in 2016, the largest of which involved carbon sequestration. Mr. Balch described several other PRRC efforts, such as development of hollow fiber membranes for use in water filtration, which can remove over 95 percent of some contaminants at relatively low pressure. He also discussed several other PRRC research capabilities.

Questions and comments from the committee included the following:

- involvement of the bureau in brine well remediation;
- mapping of underground water resources in Sandoval County;
- the difficulty in spinning off new technology into jobs for New Mexico residents;
- new uses for carbon sequestration technology;
- that oil and gas resources near Raton consist mostly of methane, but also some deeper oil deposits in shale;

- that rare earth elements exist in south central New Mexico, but not in economic quantities, so research is being conducted into their formation in an effort to find economic deposits;
- deep water well information in the subsurface library includes information on wells up to 2,000 feet deep near Albuquerque;
- industrial uses for water purified by hollow fiber membrane technology; and
- the NMIMT's decision-makers field conference was staff- and funding-intensive and was discontinued, but the school is looking into pursuing grants from the National Science Foundation as a means of bringing the conference back.

On a motion made, seconded and passed, the minutes of the June meeting were approved as submitted.

MRGCD Overview; Middle Rio Grande Levee Projects; Federal Endangered Species Act of 1973 (ESA) Collaborative Compliance Efforts; Cooperative Management of the Middle Rio Grande for Water Deliveries

John Kelly, chair, Board of Directors, MRGCD, provided the committee with an overview of the investments made by the district in water infrastructure projects in central and northern New Mexico, including watershed restoration projects, recreation trails, dam restoration projects and various other projects along the Rio Grande.

Mike Hamman, chief executive officer/chief engineer, MRGCD, provided the committee with an overview of the hydrology and operations of the district. He began by explaining that between 2010 and 2016, annual river flows were below average and the district was forced to use credit water and stored water to help deliver enough water to Elephant Butte Reservoir to avoid compact debits. Mr. Hamman noted that the outlook in 2017 is better, though. He discussed operations by the district, pointing out that operational efficiency has helped the district to significantly lower its river diversions over the past 20 years. Mr. Hamman went on to discuss the district's role in Rio Grande Compact deliveries to Texas, as well as the various consumptive uses of water in the district, noting that agriculture and the bosque account for about two-thirds of total consumption. He went on to discuss the partnership between the district and the Office of the State Engineer (OSE) and the ISC, particularly in the area of ESA compliance, noting the district's efforts to comply with the United States Fish and Wildlife Service's 2016 Biological Opinion regarding the Rio Grande silvery minnow. Mr. Hamman also discussed the district's involvement with the Middle Rio Grande Levee Task Force and the district's response to recent flooding events.

Glen Duggins, vice chair, Board of Directors, MRGCD, provided the committee with information regarding his background as a farmer in the district, his involvement with the Board of Directors and the district itself. He noted that the district focuses on the wise use of water and strives to be a good neighbor by working with other area entities, including tribes and pueblos.

Rolf Schmidt-Petersen, acting manager, Colorado River Basin, ISC, provided the committee with a presentation regarding cooperative management between the MRGCD and ISC for water deliveries, levee projects and ESA collaborative compliance efforts.

Questions and comments from the committee included the following:

- continued work on the Rio Grande Trail;
- in the wake of Hurricane Katrina, many levees in New Mexico have been deemed not compliant with federal regulations, prompting a massive effort to upgrade them, with projects under way near San Acacia and Bernalillo, as well as others planned for the Belen area and, eventually, Albuquerque;
- attempts to return the Rio Grande to its appearance of decades ago and the difficulty of getting sediment onto some parts of the flood plain without actually flooding other areas;
- it is necessary to provide backwater spawning habitats for the silvery minnow;
- the MRGCD is trying to better cooperate with area acequia users to address their concerns;
- the district has an extensive observation system in place, featuring ditch riders who consult maps provided by the OSE to prevent residents from selling their water rights but continuing to divert water;
- water rights in the district have been lost due to sale, transfer and development;
- users in the district may sell their water rights and continue diverting water by leasing those rights;
- the status of lawsuits regarding approved annual accounting by the district;
- the middle Rio Grande is the most active water rights market in the state, with transfers approved through the permitting process and a sophisticated process in place at the OSE's Albuquerque office, which serves as a rolling adjudication;
- older lawsuits questioning ownership of water rights in other parts of the state have made adjudications in those areas a more urgent priority; and
- different rules for water use exist in different regions of the state.

Greg Ridgley, general counsel, OSE, also provided the committee with an update regarding the *Texas v. New Mexico* lawsuit. He explained that New Mexico's motion to dismiss the case had been denied by the United States Supreme Court and that oral arguments on the federal government's motion to intervene would be scheduled for 2018. Mr. Ridgley noted that, despite the special master's report and the denial of New Mexico's motion to dismiss, the case will not be one-sided in favor of Texas. Rather, now that the court has decided to hear the case, New Mexico and Colorado can file an answer to Texas' claims and file counterclaims against Texas.

Senator Cervantes suggested that the issue be heard in a closed hearing at the committee's November meeting and asked committee members to raise their concerns so that presenters would be prepared to address them in November. Some of those concerns include:

- the federal government's role in the case and the implications for jurisdiction over ground water both in New Mexico and in other states;
- the basis of the lawsuit and its relationship to compact deliveries and ground water pumping below Elephant Butte Reservoir;
- the responsible party for New Mexico's defense, which is the attorney general, and experts hired to help the state prepare for the case;
- the pursuit of two approaches by both states: litigation and settlement;
- the likelihood of multiple amicus briefs being filed by various parties;
- the role of the special master versus that of the United States Supreme Court itself;
- the complex hydrology of the area;
- what remedies Texas has requested;
- the likelihood of multiple developments as the case moves on; and
- that the case could take years to reach completion.

Recess

The committee recessed at 5:15 p.m.

Friday, October 13

State Land Office (SLO) Issues: Implementation of State Trust Lands Restoration and Remediation Fund

Laura Riley, deputy commissioner of public lands, SLO, provided the committee with an update regarding implementation of the State Trust Lands Restoration and Remediation Fund, explaining that the fund had been created by the legislature during the 2017 regular session. She provided the committee with a map showing the locations of various remediation projects, as well as total funding for projects and various partnerships the SLO has entered into as a means of identifying and completing restoration and remediation projects. Ms. Riley also provided the committee with a breakdown, by county, of fiscal year 2018 projects, as well as a copy of the rule developed for use of the fund.

Questions and comments from the committee included that:

- fiscal year 2018 projects are focused on watershed restoration, as the land commissioner has identified it as a priority;
- current projects do not involve salt cedar removal, in part because state trust lands do not consist of much land along stream beds; and
- other projects involving invasive species are planned.

SLO Policy on Protection of the Ogallala Aquifer

Ms. Riley provided the committee with a presentation regarding the commissioner of public lands' announcement of a policy to not automatically approve or renew land access, without first reviewing hydrologic data, to drill water wells on state trust land that involve the use of fresh water from the Ogallala Aquifer for oil and gas production and related activities. She

explained that the commissioner issued the policy in response to the rapid depletion of the Ogallala Aquifer, despite the availability of other non-fresh water resources that can be used in oil and gas production. Ms. Riley went on to explain that the commissioner of public lands has a fiduciary duty to oversee state trust lands and optimize the revenue earned from them, as well as to balance management of lands in terms of both income and conservation, thus preserving their legacy for generations to come. She provided the committee with a breakdown of water easements in the Ogallala Aquifer in 2016, noting that oil and gas used, by far, the most water. Ms. Riley also provided the committee with a map showing water easements in the area of southeastern New Mexico that sit above the Ogallala Aquifer, as well as a copy of the SLO's new policy regarding easements for drilling and operating water wells.

Ray Westall, a business owner in Loco Hills, explained that the policy would have a massive effect on his company, which transports and sells water for oil and gas development. He noted that he had invested about \$15 million in new water lines and that the policy would make it difficult, if not impossible, for him to recoup his investment.

Questions and comments from the committee included:

- that the Ogallala Aquifer stretches from Nebraska through Texas to southeastern New Mexico, but other states, particularly Texas, do not have a similar policy in place;
- the effect of implementation of the policy on the oil and gas industry;
- the commissioner will evaluate applications and renewals on a case-by-case basis;
- SLO staff makes recommendations to the commissioner;
- the SLO owns some water rights and has joint ownership with other agencies on other water rights;
- the commissioner can evaluate land uses based on future values and protection of state trust lands for long-term use;
- the SLO rules on water easements have not changed, but this is a new policy;
- the potential economic impact of the policy;
- the amount of fresh water used for oil and gas development versus amounts used for other industries, such as agriculture;
- that oil and gas production contributes to the growth of the Land Grant Permanent Fund and to gross receipts tax income for all of New Mexico;
- the potential cost of transporting water to oil and gas wells;
- that most leases on state land are five-year leases; longer leases require public auctions;
- that some municipalities have well fields on state trust land, including some with long-term leases;
- the SLO has tried to improve the turnaround time on right-of-way applications;
- administrative differences between rules and policies;
- the policy does not affect existing leases, only new ones and renewals;
- the notice provided to stakeholders regarding the policy change; and
- that Mr. Westall owns wells on state trust land.

Oil and Gas Water Recycling Reuse Technology

Kenneth Nichols, Devon Energy, described his company's efforts to treat water for reuse in oil and gas production. He began with an overview of Devon Energy's operations in southeastern New Mexico. Mr. Nichols noted that the company has highlighted the cost and availability of fresh water as a potential risk, which has led to identifying recycling of produced water as a key strategy. He also noted that some regulatory changes have made it easier to use produced water for hydraulic fracturing. Mr. Nichols went on to discuss two separate technologies the company is using to treat water: a mobile technology produced by Fountain Quail Energy Services called ROVER; and a gradient selective chemical extraction process.

Robert Huizenga, Cimarex Energy, also discussed efforts to develop long-term water sourcing and disposal solutions for oil and gas development projects. He provided the committee with a map of the company's water reuse area that is mostly located in Texas. Mr. Huizenga went on to discuss the various methods used by Cimarex, beginning in 2013, to treat water for reuse, noting the pros and cons of each method, as well as the volume of water produced for reuse. Mr. Huizenga noted that while the technology currently employed by the company features less operational maintenance cost and reduced environmental liability, it still presents issues with regard to disposal of solids and the balancing act between reuse and production operations.

Patrick Padilla, deputy director, New Mexico Oil and Gas Association, also provided the committee with a presentation regarding reuse and recycling of water used in oil and gas development. He explained that technological advances allow for treatment of water to secondary drinking water standards, as well as creating multiple opportunities for reuse and commoditization of what are currently classified as waste products. Mr. Padilla noted that challenges to recycling include New Mexico's checkerboard land ownership and regulatory impediments and suggested that solutions include regulatory improvements such as rule changes to allow for industrial uses of produced water outside of the oilfield.

Questions and comments from the committee included:

- evaporation of water held in open storage ponds;
- development of desalination technology for use in oil and gas development;
- that use of recycled water tends to be near recycling facilities because of the current costs of transporting it;
- varying philosophies about how to use and store produced water; and
- deeper well casings help protect water in shallow aquifers.

Adjournment

There being no further business, the committee adjourned at 12:10 p.m.