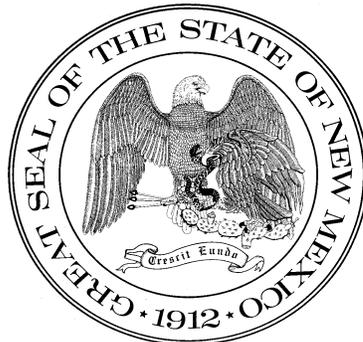


WATER
AND
NATURAL RESOURCES
COMMITTEE
AND
DROUGHT SUBCOMMITTEE

2013 INTERIM
FINAL REPORT
to the
FIFTY-FIRST LEGISLATURE
SECOND SESSION



New Mexico Legislative Council Service
Santa Fe, New Mexico
January 2014

WATER
AND
NATURAL RESOURCES
COMMITTEE
AND
DROUGHT
SUBCOMMITTEE

2013
REPORT

Santa Fe, New Mexico
January 2014

LEGISLATIVE INTERIM WATER AND NATURAL RESOURCES COMMITTEE AND THE DROUGHT SUBCOMMITTEE SUMMARY OF WORK

The Water and Natural Resources Committee (WNRC) scheduled five meetings during the 2013 interim, and the Drought Subcommittee of the WNRC scheduled three meetings. Meetings were held in Santa Fe, Clovis, Farmington and Las Cruces.

As of July 2013, the state was in its driest, and warmest, 24-month and 36-month periods on record, with over 86 percent of the state experiencing extreme or exceptional drought conditions. Many reservoirs in the state were at less than 13 percent capacity, and statewide storage was at 17 percent of normal; all were below 50 percent capacity. While heavy rains in late summer eased drought conditions in much of the state, reservoir levels in the Rio Grande Basin remained much below average and 36 percent of the state was still experiencing severe drought conditions in December.

As the current drought entered its third year, the legislature convened a Drought Subcommittee to assess how the state was coping with the consequent water shortages and catastrophic wildfires. The subcommittee heard extensive testimony on a range of issues and programs, including planning for projected impacts of drought and the effects of climate change; the federal SECURE Water Act and federal WaterSMART Program; implementing active water resource management; the Colorado River Basin Water Supply and Demand Study; the hydrology of agricultural conservation practices; and state and regional water planning efforts.

The WNRC further explored the issue of federal, state and local cooperation on forest watershed and fire management programs. Representatives from the New Mexico Association of Counties, New Mexico Forest and Watershed Restoration Institute, New Mexico Forest Industry Association, the Nature Conservancy, the office of the New Mexico State Forester and the United States Forest Service all agreed that a concerted effort was needed to address the increasing frequency and severity of wildfires and that both the public and private sectors needed to be actively involved in that effort. The representatives noted that the total costs associated with the wildfires that New Mexico experienced from 2009 through 2012 are estimated to be between \$223 million and \$3.4 billion, costs that far outstrip the amount of money the state spends on forest and watershed treatments.

The committee also took testimony on efforts by the Water Trust Board to rationalize the process by which the board evaluates and approves water projects for funding; water use in uranium mining and hydraulic fracturing; various technologies used to treat brackish or contaminated water; cooperative efforts by water users, such as acequias and irrigation districts, to share water during times of shortage; litigation over the Rio Grande Project, along with Texas' lawsuit against New Mexico and Colorado over the Rio Grande Compact; deregulation of humate mining; and Right to Farm Act issues.

The committee endorsed four pieces of legislation this interim: a bill requesting \$1.4 million for the Public Education Department to purchase New Mexico-grown fresh fruits and

vegetables for school meal programs; a bill excluding humate from the New Mexico Mining Act and changing financial assurance requirements in that act; a bill changing the financial assurance requirements in the New Mexico Mining Act; and a bill amending the Right to Farm Act to prevent certain agricultural operations from being found to be operating negligently.

Total expenditures for the voting members of the full committee this interim were \$25,795 and \$7,045 for voting members of the subcommittee. Total expenditures for the advisory members of the full committee this interim were \$28,228 and \$6,362 for advisory members of the subcommittee.

WORK PLAN

**2013 APPROVED
WORK PLANS AND MEETING SCHEDULES
for the
WATER AND NATURAL RESOURCES COMMITTEE
and
DROUGHT SUBCOMMITTEE**

Members

Sen. Phil A. Griego, Chair
Rep. George Dodge, Jr., Vice Chair
Rep. Phillip M. Archuleta
Rep. Paul C. Bandy
Sen. Joseph Cervantes
Rep. Stephen Easley
Rep. Brian F. Egolf, Jr.
Rep. William "Bill" J. Gray
Rep. Dona G. Irwin
Rep. Emily Kane

Rep. Larry A. Larrañaga
Sen. George K. Munoz
Sen. Cliff R. Pirtle
Sen. Sander Rue
Sen. Benny Shendo, Jr.
Rep. Mimi Stewart
Rep. James R.J. Strickler
Rep. Don L. Tripp
Sen. Peter Wirth
Sen. Pat Woods

Advisory Members

Rep. Cathrynn N. Brown
Sen. Pete Campos
Rep. Gail Chasey
Sen. Carlos R. Cisneros
Rep. Sharon Clahchischilliage
Sen. Lee S. Cotter
Rep. Anna M. Crook
Rep. Nora Espinoza
Rep. Candy Spence Ezzell
Sen. Ron Griggs
Sen. Stuart Ingle
Sen. Gay G. Kernan
Rep. James Roger Madalena
Rep. Rodolpho "Rudy" S. Martinez

Rep. W. Ken Martinez
Sen. Cisco McSorley
Sen. Steven P. Neville
Sen. Gerald Ortiz y Pino
Sen. Mary Kay Papen
Sen. Nancy Rodriguez
Sen. John C. Ryan
Rep. Henry Kiki Saavedra
Rep. Tomás E. Salazar
Sen. William E. Sharer
Sen. John Arthur Smith
Rep. Jeff Steinborn
Rep. Bob Wooley

Drought Subcommittee

Members

Sen. Joseph Cervantes, Chair
Rep. Brian F. Egolf, Jr., Vice Chair
Rep. Phillip M. Archuleta
Rep. Rodolpho "Rudy" S. Martinez
Sen. Steven P. Neville

Rep. Tomás E. Salazar
Sen. John Arthur Smith
Sen. Peter Wirth
Sen. Pat Woods

Advisory Members

Rep. Cathrynn N. Brown
Sen. Carlos R. Cisneros
Sen. Stuart Ingle
Rep. Larry A. Larrañaga

Sen. Mary Kay Papen
Rep. Don L. Tripp
Rep. Bob Wooley

Work Plans

The Water and Natural Resources Committee and Drought Subcommittee were created by the New Mexico Legislative Council on April 30, 2013. The committee and subcommittee propose to focus on the following topics:

1. water management, research, litigation and projects, including testimony on the following agenda items:
 - (a) reports required by statute from the state engineer and the Interstate Stream Commission;
 - (b) Indian water rights settlements — update on status and status of state cost-share funding through the Indian Water Rights Settlement Fund;
 - (c) update on the status of the revised biological opinion for the middle Rio Grande;
 - (d) Gila River planning process status update (Arizona Water Settlements Act of 2004);
 - (e) acequia issues;
 - (f) state and regional water plans update;
 - (g) state-federal cooperation on watershed health planning and management;
 - (h) report on the study of the Rio Grande levees within Valencia, Bernalillo and Sandoval counties — Mid-Rio Grande Levee Task Force;
 - (i) Water Trust Board projects and funding;
 - (j) rules on the protection of ground water resources;
 - (k) review of domestic well management areas and *Bounds v. State of New Mexico*; and
 - (l) other issues as determined by the chair;
2. agriculture, land use and game and fish issues, including:

- (a) renewable energy portfolio standards and thermal energy from forest biomass (SB 204, 2013);
 - (b) update on state parks from the State Parks Division of the Energy, Minerals and Natural Resources Department;
 - (c) report on game and fish issues in the state from the Department of Game and Fish, including listing of the lesser prairie chicken; and
 - (d) report on livestock issues from the New Mexico Livestock Board; and
3. Drought Subcommittee reports — possible topics for subcommittee include:
- (a) drought management plans and policies;
 - (b) ground water storage and recovery;
 - (c) strategic water reserve;
 - (d) Rio Grande Compact;
 - (e) Pecos River Compact;
 - (f) augmentation of water supply;
 - (g) drought outlook — report from the New Mexico Drought Task Force;
 - (h) implementation of active water resource management;
 - (i) federal Endangered Species Act challenges;
 - (j) conservation; and
 - (k) Colorado River Basin water supply and demand study.

**2013 Proposed Meeting Schedules
Water and Natural Resources Committee**

<u>Date</u>	<u>Location</u>
June 10	Santa Fe
July 25-26	Clovis
August 29-30	Farmington
October 15-16	Las Cruces
November 14-15	Santa Fe

Drought Subcommittee

<u>Date</u>	<u>Location</u>
July 24	Clovis
August 28	Farmington
October 14	Las Cruces

AGENDAS

Revised: July 16, 2013

**TENTATIVE AGENDA
for the
SECOND MEETING IN 2013
of the
WATER AND NATURAL RESOURCES COMMITTEE
and the
DROUGHT SUBCOMMITTEE**

**July 24-26, 2013
801 Schepps Blvd., Clovis Civic Center
Clovis**

**DROUGHT SUBCOMMITTEE AGENDA
Wednesday, July 24**

- 12:00 noon **Call to Order**
—Senator Joseph Cervantes, Chair, Drought Subcommittee
- 12:05 p.m. (1) **Drought Update, Historical Perspective and Short- and Long-Term Outlook**
—Chuck Jones, Meteorologist, National Weather Service
- 1:00 p.m. (2) **Planning for Projected Impacts of Drought and the Effects of Climate Change — the SECURE Water Act and WaterSMART Program**
—Dagmar Llewellyn, Bureau of Reclamation
- 2:30 p.m. (3) **Legislation Addressing Drought Management from the 2000s and Implementing Active Water Resource Management**
—Scott Verhines, State Engineer
—Office of the State Engineer Staff
- 4:00 p.m. (4) **Update on the Pecos River Priority Call**
—Scott Verhines, State Engineer
—Dudley Jones, Manager, Carlsbad Irrigation District (invited)
—Aron Balok, Superintendent, Pecos Valley Artesian Conservancy District (invited)
- 5:00 p.m. **Adjourn**

FULL WATER AND NATURAL RESOURCES COMMITTEE AGENDA
Thursday, July 25

- 9:30 a.m. **Call to Order and Introductions**
—Representative George Dodge, Jr., Vice Chair, Water and Natural Resources Committee
- 9:35 a.m. (5) [Eastern New Mexico Rural Water Supply Project](#)
—Paul Van Gulick, Project Manager, Eastern New Mexico Water Utility Authority (ENMWUA)
—Gayla Brumfield, Chair, ENMWUA
—Sharon King, Vice Chair, ENMWUA, Mayor of Portales
- 10:30 a.m. (6) [Use of Recoverable Water](#)
—Scott Verhines, State Engineer
- 11:15 a.m. (7) [Right to Farm Legislation](#)
—Beverly Indsinga, Dairy Producers of New Mexico
—Walter Bradley, Dairy Farmers of America
—T.J. Trujillo, Gallagher and Kennedy, P.A.
- 12:00 noon **Lunch**
- 1:15 p.m. (8) [Thermal Energy from Forest Biomass and Renewable Energy Portfolio Standards](#)
—Brent Racher, President, New Mexico Forest Industry Association
—Dwight Lamberson, Director, Utility Division, Public Regulation Commission (invited)
- 2:15 p.m. (9) [Federal-State-Local Cooperation in Forest Watershed and Fire Management](#)
—Pat Jackson, Chief of Staff, Southwestern Regional Office, United States Forest Service
—Tony Delfin, New Mexico State Forester (invited)
—Laura McCarthy, Director of Conservation Programs, The Nature Conservancy New Mexico Field Office
—Brent Racher, President, New Mexico Forest Industry Association
—Kent Reid, Interim Director, New Mexico Forest and Watershed Restoration Institute
—Joy Esparsen, New Mexico Association of Counties
- 5:00 p.m. **Recess**

Friday, July 26

- 9:00 a.m. (10) **Technology for the Recycling and Reuse of Water**
—John Vincent, Aquanox, Inc.
- 10:00 a.m. (11) **Geothermal Power and Energy Efficiency**
—Keven Groenewold, Executive Vice President, New Mexico Rural
Electric Cooperative Association
—Jerry W. Partin, General Manager and Executive Vice President,
Roosevelt County Electric Cooperative, Inc.
—Eric Austin, Commercial and Industrial Marketing Manager, Western
Farmers Electric Cooperative
- 11:00 a.m. (12) **The Future of Agriculture in New Mexico**
—James Bostwick, State Chair, Farm Service Agency
- 12:00 noon **Adjourn**

Revised: August 27, 2013

**TENTATIVE AGENDA
for the
THIRD MEETING IN 2013
of the
WATER AND NATURAL RESOURCES COMMITTEE
and the
DROUGHT SUBCOMMITTEE**

**August 28-30, 2013
Henderson Fine Arts Center, San Juan College
Farmington**

**DROUGHT SUBCOMMITTEE AGENDA
Wednesday, August 28**

- 12:00 noon **Call to Order**
 —Senator Joseph Cervantes, Chair, Drought Subcommittee
- 12:05 p.m. (1) **Implications for the Management of Domestic Wells and Domestic Well Management Areas in View of the *Bounds* Decision**
 —DL Sanders, Chief Counsel, Office of the State Engineer (OSE)
 —Robin Irwin, New Mexico Ground Water Association
 —New Mexico Home Builders Representative
- 1:30 p.m. (2) **Colorado River Basin Water Supply and Demand Study (CRBS) — Implications for New Mexico — Water Use Efficiency, Reuse and Transfers, Watershed Management and Environmental Flows**
 —Carly Jerla, Co-Study Manager, CRBS, Bureau of Reclamation
 —Estevan López, Director, Interstate Stream Commission (ISC)
 —Steve Harris, Executive Director, Rio Grande Restoration
 —Kayrene Brothers, CRBS Municipal and Industrial/Conservation/Reuse Work Group
 —John Longworth, CRBS Agriculture Conservation/Transfers Work Group
- 3:30 p.m. **Subcommittee Discussion and Questions**
 —Estevan López, Director, ISC
 —DL Sanders, Chief Counsel, OSE
- 5:00 p.m. **Adjourn**

FULL WATER AND NATURAL RESOURCES COMMITTEE AGENDA
Thursday, August 29

- 9:00 a.m. **Call to Order, Introductions and Welcome**
—Senator Phil A. Griego, Chair, Water and Natural Resources Committee
—Toni Pendergrass, President, San Juan College
- 9:15 a.m. (3) **Hydraulic Fracturing (Fracking) and Water Use**
—Karin Foster, Independent Petroleum Producers Association
—Bruce Baizel, Energy Program Director, Earthworks
—L. Greer Price, State Geologist, Director, Bureau of Geology and
 Mineral Resources
—Shari Kelley and Ron Broadhead, New Mexico Institute of Mining and
 Technology
- 10:30 a.m. (4) **Technology for Pre-Treatment of Water for Reuse**
—Bill McMillan, Breakwater Valve Systems, LLC
- 11:30 a.m. (5) **School of Energy at San Juan College**
—Randy Pacheco, Dean, School of Energy, San Juan College
- 12:00 noon **Lunch**
- 1:30 p.m. (6) **Terms and Implementation of the Navajo Indian Water Rights Settlement**
—Estevan López, Director, ISC
—Jim Rogers, San Juan Agricultural Water Users Association
- 3:00 p.m. **Recess for Legislative Tour**

Friday, August 30

- 9:00 a.m. (7) **Efficient Utilization of Water/Wastewater Infrastructure Funding**
—Matt Holmes, New Mexico Rural Water Association
- 10:00 a.m. (8) **Roca Honda Uranium Mine and Water Use**
—Governor Richard B. Luarkie, Pueblo of Laguna (invited)
—Governor Gregg P. Shutiva, Pueblo of Acoma
—Bruce Thomson, Director, Water Resources Program, University of
 New Mexico
- 12:00 noon **Adjourn**

Revised: October 11, 2013

**TENTATIVE AGENDA
for the
FOURTH MEETING IN 2013
of the
WATER AND NATURAL RESOURCES COMMITTEE
and the
DROUGHT SUBCOMMITTEE**

**October 14-16, 2013
New Mexico State University Golf Course
3000 Herb Wimberly Drive
Las Cruces**

**DROUGHT SUBCOMMITTEE AGENDA
Monday, October 14**

- 12:00 noon **Call to Order and Welcome**
—Senator Joseph Cervantes, Chair, Drought Subcommittee
—Dan Howard, Provost, New Mexico State University (NMSU)
- 12:15 p.m. (1) **[Gila River and Arizona Water Settlements Act](#)**
—Craig Roepke, Interstate Stream Commission (ISC)
—John Cornell, New Mexico Wildlife Federation
—Santa Rosa de Lima A.T.O.M.I.C. Youth Group
—Richard McInturff, City of Deming
—Alex Thall, Grant Soil and Water Conservation District (invited)
—Lori Weigel, Public Opinion Strategies
- 2:00 p.m. (2) **[Plains of San Agustin Ground Water Appropriation](#)**
—Michel Jislinski, Project Manager, Augustin Plains Ranch, LLC
—Eileen Dodds, Anita Hand and Linn Kennedy, San Augustin Water
Coalition
- 3:00 p.m. (3) **[Agricultural Water Conservation Hydrology](#)**
—Sam Fernald, Director, Water Resources Research Institute
—Gary Esslinger, Treasurer-Manager, Elephant Butte Irrigation District
(EBID)
—J. Phillip King, Civil Engineering Department, NMSU
—Steve Wilmeth, South Central New Mexico Stormwater Management
Coalition
—Dino Cervantes, Cervantes Agribusiness
—Scott Verhines, State Engineer
- 5:00 p.m. **Adjourn**

FULL COMMITTEE AGENDA

Tuesday, October 15

- 9:00 a.m. **Call to Order and Welcome**
—Senator Phil A. Griego, Chair, Water and Natural Resources Committee
—Gregory Fant, Deputy Provost, NMSU
- 9:05 a.m. (4) **How the Rio Grande Compact Functions**
—Phil King, EBID
—Rolf Schmidt-Petersen, ISC
- 10:15 a.m. (5) **Issues in Litigation — *State of New Mexico v. U.S. et al.* and *State of Texas v. State of New Mexico and State of Colorado***
—Steve Hernandez, Attorney, EBID
—Counsel for El Paso County Water Improvement District No. 1 (invited)
—Jay Stein, Attorney for the City of Las Cruces
—Sarah Bond, Office of the Attorney General
- 12:00 noon **Lunch**
- 1:00 p.m. (6) **Update on Statewide Precipitation and Reservoir Levels**
—Dave DuBois, New Mexico State Climatologist
—Scott Verhines, State Engineer
- 1:30 p.m. (7) **Working with Water Users to Address Water Shortages**
—Rolf Schmidt-Petersen, ISC
—Fred Vigil, Rio Chama Acequia Association
—Medardo Sanchez, Acequia Norteños
—David Gensler, Middle Rio Grande Conservation District
- 2:30 p.m. (8) **Review of the State and Regional Water Plans, the Water Trust Fund and Funding Through the Water Project Fund by the Water Trust Board**
—Scott Verhines, State Engineer
—Estevan Lopez, Director, ISC
—Steve Moise, State Investment Officer
—Eileen Dodds, New Mexico Water Dialogue
—Jack Sullivan, P.E.
- 4:00 p.m. (9) **Hispanic Farmers and Ranchers of America (HFRA) Presentation**
—Lupe Garcia, Director, HFRA
—Oscar Vasquez Butler, Member, HFRA
—Scott Boyd, Member, HFRA
- 5:00 p.m. **Recess**

Wednesday, October 16

- 9:00 a.m. (10) **Humate Mining and Water Conservation**
—T.J. Trujillo, Gallagher and Kennedy PA
—Michael Farmar, President/CEO, Horizon Ag-Products
- 10:00 a.m. (11) **Process for Removal of Cattle from Forest Lands in Drought**
—Caren Cowan, New Mexico Cattlegrowers' Association
—Sam Smallidge, Range Improvement Task Force (invited)
—United States Forest Service Representative (invited)
- 11:00 a.m. (12) **Treatment of Water for Uranium Contamination**
—Jaime Geronimo Vela, Doctoral Student, NMSU
—Dr. Antonio Lara, Professor of Chemistry, NMSU
- 12:00 noon (13) **Hydraulic Fracturing and Produced Water Reuse**
—David Martin, Secretary-Designate, Energy, Minerals and Natural
Resources Department
- 12:30 p.m. **Adjourn**

Revised: November 8, 2013

**TENTATIVE AGENDA
for the
FIFTH MEETING IN 2013
of the
WATER AND NATURAL RESOURCES COMMITTEE**

**November 14-15, 2013
Room 307, State Capitol
Santa Fe**

Thursday, November 14

- 9:00 a.m. **Call to Order and Welcome**
—Senator Phil A. Griego, Chair, Water and Natural Resources Committee
- 9:05 a.m. (1) **Ground Water Management Districts — Promoting Sustainable Ground Water Use**
—Steve Vandiver, General Manager, Rio Grande Water Conservation District
- 10:00 a.m. (2) **Middle Rio Grande Levee Task Force Report**
—John D'Antonio, Deputy District Engineer for Project Management, United States Army Corps of Engineers
—John Kelly, Middle Rio Grande Conservancy District
—Rolf Schmidt-Petersen, Interstate Stream Commission
- 11:00 a.m. (3) **Use of Concentrate from Brackish Water Treatment**
—Aubrey Howard, Glenjohn Capital
- 12:00 noon **Lunch**
- 1:30 p.m. (4) **Water Quality Project Report**
—Samantha Multari, Student, Hope Christian School
- 2:15 p.m. (5) **Utton Transboundary Resources Center Report**
—Marilyn C. O'Leary, Interim Director, Utton Transboundary Resources Center
- 3:15 p.m. (6) **Department of Environment Initiative on River Restoration**
—Ryan Flynn, Secretary-Designate, Department of Environment
- 4:15 p.m. (7) **Acequia Perspectives on Water Scarcity, Active Water Resource Management and Funding for Irrigation Infrastructure**
—Paula Garcia, Executive Director, New Mexico Acequia Association

5:15 p.m. **Recess**

Friday, November 15

9:00 a.m. (8) **Update on Wildlife Safety Zones**
—Mark Watson, Department of Game and Fish
—Coleman Burnett, Department of Transportation

10:00 a.m. (9) **Consideration of Legislation**
—Farm-to-Table Funding
—Forest and Watershed Treatment Financing
—Exempt Humate Mining from the New Mexico Mining Act
—Change Financial Assurance Filing Requirements in the New Mexico
 Mining Act
—Right to Farm Act Nuisance Provisions
—Right to Farm Act Liability Presumption
—Other Legislation TBD

12:00 noon **Adjourn**

MINUTES

**MINUTES
of the
FIRST MEETING
of the
WATER AND NATURAL RESOURCES COMMITTEE
and the
DROUGHT SUBCOMMITTEE**

**June 10, 2013
Santa Fe**

The first meeting of the Water and Natural Resources Committee (WNRC) was called to order by Senator Phil A. Griego, chair, at 9:15 a.m. on Monday, June 10, 2013, in Room 307 of the State Capitol.

Present

Sen. Phil A. Griego, Chair
Rep. George Dodge, Jr., Vice Chair
Rep. Phillip M. Archuleta
Rep. Paul C. Bandy
Sen. Joseph Cervantes
Rep. Stephen Easley
Rep. Brian F. Egolf, Jr.
Rep. William "Bill" J. Gray
Rep. Emily Kane
Rep. Larry A. Larrañaga
Sen. Cliff R. Pirtle
Sen. Sander Rue
Rep. Mimi Stewart
Rep. James R.J. Strickler
Sen. Peter Wirth
Sen. Pat Woods

Absent

Rep. Dona G. Irwin
Sen. George K. Munoz
Sen. Benny Shendo, Jr.
Rep. Don L. Tripp

Advisory Members

Sen. Carlos R. Cisneros
Sen. Lee S. Cotter
Rep. Anna M. Crook
Rep. Candy Spence Ezzell
Sen. Ron Griggs
Rep. Rodolpho "Rudy" S. Martinez
Rep. W. Ken Martinez
Sen. Cisco McSorley
Sen. Gerald Ortiz y Pino
Sen. Mary Kay Papen
Sen. Nancy Rodriguez

Rep. Cathrynn N. Brown
Sen. Pete Campos
Rep. Gail Chasey
Rep. Sharon Clahchischilliage
Rep. Nora Espinoza
Sen. Stuart Ingle
Sen. Gay G. Kernan
Rep. James Roger Madalena
Sen. Steven P. Neville
Sen. John C. Ryan
Rep. Henry Kiki Saavedra

Rep. Tomás E. Salazar
Sen. William E. Sharer
Sen. John Arthur Smith
Rep. Jeff Steinborn
Rep. Bob Wooley

Staff

Jon Boller, Legislative Council Service (LCS)
Gordon Meeks, LCS
Jeret Fleetwood, LCS

Guests

The guest list is in the original meeting file.

Handouts

Handouts and other written testimony can be found in the meeting file or on the New Mexico Legislature's web site.

Monday, June 10

Senator Griego began the meeting by having members of the committee and staff introduce themselves.

Interim Committee Procedures

John Yaeger, assistant director for legislative affairs, LCS, provided the committee with an overview of interim committee procedures, including quorum requirements, the calendar listing proposed meeting dates for all committees and the blocking provision.

Senator Griego raised a concern about potential lake closures in several state parks and asked that a representative from the State Parks Division of the Energy, Minerals and Natural Resources Department (EMNRD) make a brief presentation to the committee.

Status Reports — Office of the State Engineer (OSE) and Interstate Stream Commission (ISC)

Scott Verhines, state engineer, and Estevan Lopez, director, ISC, introduced various members of their staff to the committee and provided the committee with status reports on a number of water-related issues.

Mr. Verhines explained that New Mexico is in the midst of unprecedented drought conditions and that the last two years have been the hottest and driest in the last 118 years on record. He characterized the drought as a slow-moving disaster, pointing out that the town of Maxwell ran out of water last year and that Magdalena had already run out of water this year. Mr. Verhines also noted that the catastrophic wildfires seen in the region have a huge impact on the drought, affecting watersheds, forcing the closure of some areas and causing water quality

issues for downstream users. He also indicated that federal Endangered Species Act (ESA) compliance issues only add to the tension over water that exists statewide. However, Mr. Verhines suggested that working toward a solution, rather than fighting, is the best approach to address New Mexico's water issues.

Mr. Verhines went on to explain that the OSE is responsible for protecting New Mexico's water from other states, using taxpayer money wisely, protecting senior water rights, ensuring that water rights are put to beneficial use, helping to build a strong economy and administering procedures to deal with current conditions.

John Longworth, OSE, provided the committee with an update regarding drought conditions in New Mexico, including maps showing the state receiving precipitation well below the average for the first half of 2013. He also provided the committee with maps detailing the growth of exceptional drought conditions (the worst possible classification) throughout the state, as well as precipitation and temperature outlooks for the rest of 2013. Mr. Longworth pointed out that projections are for below-average precipitation and above-average temperatures for the southwestern United States for the remainder of the year. He also addressed spring and summer stream flow maps for the region, which call for below-average flows for the Colorado, Rio Grande and Arkansas river basins.

Mr. Verhines and Mr. Lopez took turns providing the committee with status reports on various water-related issues.

Mr. Verhines began with Active Water Resource Management (AWRM), noting that after several years of litigation, and nine years after the legislature enacted the authorizing legislation, the New Mexico Supreme Court in November 2012 affirmed the authority of the state engineer to implement AWRM. He explained that the term refers to a number of activities by the OSE ranging from physical water distribution, measurement and management through OSE water masters, legal activities, such as adjudications, water rights licensing and enforcement actions for overuse or illegal use of water, to river management activities in order to meet water compact delivery obligations, maintain habitat and restore species covered by the ESA. He noted that district specific rules are being promulgated in seven priority basins but that efforts are currently being concentrated in three basins: the San Juan River, the lower Rio Grande and the Pecos River.

Mr. Lopez addressed Indian water rights settlements, noting that while New Mexico is responsible for contributing \$50 million to the billion-dollar Navajo Nation Water Rights Settlement Project, the state has already contributed just over that amount and, depending on how much of those contributions New Mexico gets credit for, may have met its obligation. Mr. Lopez also pointed out that the Taos and Aamodt settlements have each executed its revised settlement agreements and that the court will conduct expedited inter se proceedings to determine whether to approve the settlement agreements. According to Mr. Lopez, the state's cost-share for the three federally authorized settlements is approximately \$130 million, of which \$35 million has already been appropriated to the Indian Water Rights Settlement Fund (IWRSF) since 2005. He

noted that the OSE and ISC advocate funding \$15 million per year for the IWRSF in order to meet the state's obligations under the settlement agreements in the coming years. He also indicated that the State-Tribal Summit is scheduled for later in June and that a survey of tribal leaders has identified tribal water rights as a priority.

Mr. Verhines discussed issues related to the Jal basin, explaining that Midland, Texas, has initiated plans to drill wells on the border between Texas and New Mexico and begin pumping water to Midland from the same aquifer that Jal relies on for 100 percent of its water. He said that officials from Jal and Midland have met, but the issue remains unresolved.

Mr. Verhines also discussed the Eastern New Mexico Rural Water Supply Project, or the Ute Pipeline as it is commonly known. He indicated that while construction has begun on the project, litigation against the federal Bureau of Reclamation has been initiated by the Village of Logan. Mr. Verhines explained that a major concern of Logan residents is that the recreational value of the Ute Reservoir may be diminished if the water in it is taken and put to use. Mr. Verhines also pointed out that 13 of 18 boat docks that were permitted decades ago by the ISC have been revoked because of safety concerns over low water conditions.

Mr. Lopez discussed the 2004 Arizona Water Settlements Act, saying that the number of proposals being considered has been narrowed down to 16 from about 40 and that the hope is to have the ISC's decisions on which projects to pursue before the December 2014 deadline.

Mr. Verhines discussed the Western States Water Council, pointing out that 18 states are members of the council, which helps provide water policy advice. He noted that one of the major accomplishments of the council is the formation of the Western States Federal Agency Support Team, which should better facilitate coordination between states and several federal agencies.

Mr. Lopez discussed the Pecos River Settlement Agreement, explaining that compliance with the settlement and extreme drought conditions have necessitated augmentation pumping from two well fields operated by the ISC in order to provide water to Carlsbad Irrigation District (CID) farmers. However, he indicated that the ISC will not reach its target pumping levels this year. Mr. Lopez also noted that several protests have been filed regarding the ISC's Seven Rivers area well, pointing out that there is a high probability of litigation over the issue.

Mr. Lopez went on to discuss a priority call on the Pecos River. He explained that a call was initiated by two CID resolutions earlier this year, which in turn initiated a series of events, including meetings between the five parties to the Pecos River Settlement Agreement, compiling of a list of junior and senior water rights in the Pecos River Basin and updates to basin-specific AWRM regulations and river models.

Mr. Lopez also discussed ESA issues on the Pecos River, particularly as they relate to the Pecos bluntnose shiner. He explained that stretches of the river went intermittently wet and dry in 2012 and that the biological opinion does not account for such drying. As such, Mr. Lopez said a reconsultation of the biological opinion is almost certain in 2013, with unknown, but likely

adverse, impacts to water operations resulting from possible changes to the biological opinion.

Mr. Verhines discussed the Water Trust Board's project application process, explaining that the process has been reviewed and that the board approved revisions intended to streamline the process, including splitting the application into a spring and fall filing. He also noted that further revision to the process may occur in 2014.

Mr. Verhines discussed the 2008 Rio Grande Project Operating Agreement among the Bureau of Reclamation, Elephant Butte Irrigation District (EBID) and El Paso County Water Improvement District Number One (EP1), which has reallocated about 170,000 acre-feet of water per year from the EBID to EP1. He explained that the reallocation of surface water has forced EBID farmers to rely on ground water pumping but that the effects of that pumping, such as reduced surface water for aquifer recharge, are beginning to show. He noted that the attorney general and the City of Las Cruces are plaintiffs in a lawsuit against the Bureau of Reclamation, EBID and EP1 over the release of New Mexico's Rio Grande Compact credit water to EP1 and Mexico and the operating agreement.

Mr. Verhines briefly discussed litigation involving the OSE, including challenges to the constitutionality of the domestic well statute.

Mr. Verhines also discussed ESA issues on the Rio Grande, explaining that the 2003 Biological Opinion will expire soon and that while a new one is being developed, the possibility of litigation over a new opinion does exist.

Mr. Verhines updated the committee on the active adjudications in the state, particularly the ones on the Chama River, Pecos River and lower Rio Grande. He pointed out that the OSE Litigation and Adjudication Program continues to experience a high vacancy rate in the core technical and legal positions.

Mr. Verhines and Mr. Lopez went on to discuss flood control issues on the middle Rio Grande, noting that the federal government has placed increased emphasis on addressing unsafe levee conditions nationwide. They said that the ISC is collaborating with the Middle Rio Grande Conservancy District as local sponsors on an Army Corps of Engineers project to replace over 50 miles of non-engineered levee near Socorro at a cost of \$290 million.

Mr. Verhines discussed a situation on the Chama River, explaining that particularly low flows on the river below Abiquiu Reservoir may require curtailment of some water diversions. He noted that some northern acequia users have been using water meant for more senior downstream users but that the parties involved are trying to resolve the issue without a priority call.

Finally, Mr. Verhines and Mr. Lopez touched on issues related to lower-than-average flows in the Colorado River Basin, regional and state water planning and dam safety.

Tommy Mutz, director, State Parks Division, EMNRD, provided the committee with an update on water levels and boat ramps at some of the lakes in eastern New Mexico, particularly Conchas Lake. He explained that water levels at Conchas Lake are at the lowest level ever recorded and that, since jurisdictional boundaries are determined by vertical elevation, the State Parks Division has no jurisdiction at the lake. Mr. Mutz went on to note that the low water levels have left the existing boat ramps well above water and that it is nearly impossible to back a boat into the water at the existing grade of the slope leading to the lake. He indicated that airplane landing-strip mats are being placed on the southern side of the lake to try to alleviate the issue but pointed out that having only one ramp available could present a safety issue. Mr. Mutz explained that there is little to no access for boats to the lake, which is placing a significant burden on the division's finances, as some portion of money for the division comes from park fees.

Questions and comments from the committee included:

- steps the legislature can take to help address staff shortages at the OSE;
- that a bootleg ramp still exists at Conchas Lake;
- how best to resolve drought issues and plan for the future;
- the concept of making emergency funding available through the Water Trust Board;
- that Governor Martinez's executive order that capital outlay recipients must have up-to-date audits creates problems for smaller entities, like acequias, that do not have funding available to perform audits;
- a developer bought a farm in Lea County and subdivided it before a law requiring water plans for subdivisions took effect;
- issues with ISC pumping near Brantley Reservoir and oversight of the well fields near Lake Arthur and Seven Rivers;
- the transfer of water rights into those well fields does not mean more volume will be pumped but, instead, offers flexibility;
- middle Rio Grande water storage and potential plans by the Bureau of Reclamation to release more water to Texas;
- priorities of the OSE are: implementation of AWRM, completion of the Indian water rights settlements, meeting the deadline for the 2004 Arizona Water Rights Settlement, resolution of the Pecos River Settlement Agreement, the Rio Grande Operation Agreement litigation and addressing ESA issues on all of the state's rivers;
- Colorado and New Mexico water management issues, including New Mexico ditches that are diverted into Colorado and operate according to a memorandum of understanding;
- the status of a lawsuit involving Albuquerque drinking water;
- planning by the Bureau of Reclamation on the Colorado River;
- one-third of the farmland in the lower Rio Grande is currently fallow because of drought conditions;
- the EBID is still paying district assessments, but it is not receiving any water; and
- the difference between interstate compact compliance and actual delivery of

water.

2013 Interim Work Plan, Itinerary and Meeting Schedule

The committee added the following items to the proposed work plan:

- climate change issues;
- conservation;
- tribal water issues;
- mining, oil and gas exploration and water use;
- domestic well issues; and
- innovations in drought-tolerant plants.

The committee also selected the following meeting dates and locations:

- July 25-26 Clovis
- August 29-30 Farmington
- October 15-16 Las Cruces
- November 14-15 Santa Fe.

Discussion of Drought Subcommittee Work Plan

The committee also discussed the Drought Subcommittee's work plan. Senator Cervantes emphasized that he wants to avoid redundancy between the subcommittee and the whole committee. The subcommittee also agreed to meet the day before the whole committee, selecting the following dates and locations:

- July 24 Clovis
- August 28 Farmington
- October 14 Las Cruces.

Department of Game and Fish

Cal Baca, Department of Game and Fish, provided the committee with an update on the status of the potential listing of the lesser prairie chicken as an endangered species. He explained that the bird could be listed but that five states and most of the stakeholders involved have developed a conservation plan. Mr. Baca explained that there could be significant impact to industry, agriculture and landowners if the bird is listed. He pointed out that the comment period on the conservation plan has been reopened until June 20. Mr. Baca also said that the recommendation is currently against listing the bird, explaining that while its population appears to go up and down according to drought cycles, their numbers appear to be growing in Kansas and are stable in New Mexico.

Adjournment

There being no further business, the committee adjourned at 1:05 p.m.

**MINUTES
of the
SECOND MEETING
of the
DROUGHT SUBCOMMITTEE**

**July 24, 2013
Clovis Civic Center, Clovis**

The second meeting of the Drought Subcommittee of the Water and Natural Resources Committee was called to order on July 24, 2013 at 12:25 p.m. by Senator Joseph Cervantes, chair, in the Clovis Civic Center in Clovis.

Present

Sen. Joseph Cervantes, Chair
Rep. Phillip M. Archuleta
Rep. Rodolpho "Rudy" S. Martinez
Rep. Tomás E. Salazar
Sen. Peter Wirth
Sen. Pat Woods

Absent

Rep. Brian F. Egolf, Jr., Vice Chair
Sen. Steven P. Neville
Sen. John Arthur Smith

Advisory Members

Sen. Carlos R. Cisneros
Sen. Stuart Ingle
Rep. Larry A. Larrañaga
Sen. Mary Kay Papen

Rep. Cathrynn N. Brown
Rep. Don L. Tripp
Rep. Bob Wooley

Guest Legislators

Rep. Sharon Clahchischilliage
Sen. Lee S. Cotter
Rep. Anna M. Crook
Rep. Nora Espinoza
Sen. Ron Griggs
Sen. Benny Shendo, Jr.
Rep. Jeff Steinborn

Staff

Jon Boller, Legislative Council Service (LCS)
Gordon Meeks, LCS
Jeret Fleetwood, LCS

Guests

The guest list is in the original meeting file.

Handouts

Handouts and other written testimony can be found in the meeting file or on the LCS web site.

Wednesday, July 24

Senator Cervantes began the meeting by having members of the subcommittee introduce themselves.

Senator Cervantes also provided the subcommittee with a brief history of the Water and Natural Resources Committee, the 2008 Adjudications Subcommittee and the Drought Subcommittee.

Drought Update, Historical Perspective and Short- and Long-Term Outlook

Chuck Jones, a meteorologist with the National Weather Service and member of the Drought Task Force Monitoring Work Group, reported on drought conditions in New Mexico. He explained that New Mexico, like most western states, experienced below-normal precipitation in June 2013 and that the statewide average precipitation totals for January to June are about 44 percent of normal, though in the central valley and southern deserts, it is only 24 percent and 27 percent of normal, respectively. Mr. Jones went on to note that the past 24 months and 36 months are the driest two- and three-year stretches on record, and that the past 48 months and 60 months are among the 10 driest three- and five-year periods on record. Mr. Jones also indicated that while there has been a slight change in conditions since June, the entire state is still classified as under moderate or worse drought; nearly 99 percent is in severe drought status; and 86 percent of New Mexico is in extreme or exceptional drought. As for the extended weather outlook, he said that the model consensus of the El Niño–Southern Oscillation supports neutral conditions into the autumn, which means that the precipitation outlook for August through October should be at or above normal, while the temperature outlook calls for warmer-than-average temperatures.

Sam Fernald, director, Water Resources Research Institute (WRRI) at New Mexico State University, also provided the subcommittee with testimony regarding the drought. He explained that there are a number of indicators of drought, such as snowpack, that were significantly below normal in 2012 and 2013. Mr. Fernald also noted various hydrologic indicators of drought, such as river flows and when they peak. For example, he said that Rio Grande flows peaked in March, which is extremely early, and that even then, peak flows were at a somewhat low volume. Likewise, low reservoir and ground water levels throughout the state indicate the severity of the current drought, he said. Mr. Fernald observed that 1979 through 2001 were some of the wettest years since prehistoric times, as evidenced by tree-ring analysis. He also pointed out that the same analysis shows that some historic droughts in the area have been much more severe, sometimes lasting 50 to 75 years. Mr. Fernald said that climate forecasts for the near future call for increasing temperatures, which could increase evaporation rates markedly.

Questions and comments from the subcommittee included the following:

- the effect of rising temperatures on evaporation of storage water;
- the difference between El Niño and La Niña weather patterns and the lack of signals that indicate which pattern might occur in the next year;
- normal monsoon weather patterns and reverse monsoon patterns;
- the unusual nature of a storm that began in the mid-Atlantic states and moved from east to west, eventually dropping some moisture on New Mexico;
- there is no way to predict how long any particular drought will last;
- while Clovis had some success with cloud seeding in the 1990s, Texas has a project in place but has not had the right kind of clouds for seeding;
- it is difficult to develop temperature and precipitation outlooks for anything longer than the short term with very much accuracy;
- the WRRRI is conducting a study regarding water loss due to evaporation and its effect on water storage;
- weather patterns around the world generally have to be in balance, so somewhere in the world there may be a place experiencing wetter-than-normal weather;
- tree-ring analysis is fairly well-accepted science, but it does not indicate whether the state is in a short- or long-term drought;
- if New Mexico is in the beginning of a 75- or 100-year drought, it should plan for the worst possible scenario;
- Caballo Lake is at "dead pool" status, meaning no more water can be moved from it, while Elephant Butte Lake is at about five percent of capacity; and
- New Mexico has the lowest percent of reservoir storage in the United States at the moment, with many reservoirs at less than 13 percent capacity, and all are below 50 percent.

Planning for Projected Impacts of Drought and the Effects of Climate Change — the SECURE Water Act and WaterSMART Program

Dagmar Llewellyn, a hydrologist for the Bureau of Reclamation (BOR), briefed the subcommittee on several programs administered by the BOR that address water supply and demand issues. She began by discussing the federal SECURE Water Act, which authorizes federal water and science agencies to work together with state and local water managers to plan for climate change and other threats to water supplies and to take action to secure those water resources for communities, economies and ecosystems. Ms. Llewellyn noted that the SECURE Water Act is implemented through the WaterSMART Program, a program established by order of Secretary of the Interior Ken Salazar to provide federal leadership and assistance on the efficient use of water. The program also coordinates the water conservation activities of the various Department of the Interior agencies, administers grants and conducts basin study programs. Ms. Llewellyn went on to discuss the Basin Study Program in more detail, noting that it directs the secretary of the interior to establish a climate change adaptation program to assess risks to water supply, analyze impacts of changes in water supply on a variety of demands and develop mitigation strategies in consultation with non-federal participants. She noted that basin studies allow the BOR to collaborate with non-federal partners to evaluate current and future

water supply and demand, including state-of-the-art projections of future supply, analysis of the adequacy of existing water supplies, development of options to improve operations and trade-off analyses of the options identified. Ms. Llewellyn noted that funded basin studies involving New Mexico include the Pecos River, Santa Fe River and Colorado River basins. Ms. Llewellyn also described the Water and Energy Efficiency Grants, the Water Reclamation and Reuse Program and the Cooperative Watershed Management Program, noting that the Arch Hurley Conservancy District, Carlsbad Irrigation District (CID) and Albuquerque-Bernalillo County Water Utility Authority have received funding from the BOR for projects under these programs.

Questions and comments from the subcommittee included the following:

- that basin studies are competitive, so there is some risk in appropriating money for one and not being selected for it;
- that basin studies can be any scale, from small to multi-state; and
- that deadlines for applications vary, but a letter of interest by December is typical.

Legislation Addressing Drought Management from the 2000s and Implementing Active Water Resource Management

Scott Verhines, state engineer, and Amy Haas, general counsel, Interstate Stream Commission (ISC), reviewed several legislative initiatives on water issues from the past decade that were designed to better plan for drought and administer water in the state. Ms. Haas began by discussing the strategic water reserve and state and regional water planning. She explained that the strategic water reserve uses leased, purchased or donated water and may be used only for compact deliveries and to benefit endangered species. Ms. Haas noted that the state water plan was created by statute in 2003 and that two requirements of the statute relate to drought: one that mandates a drought management plan and another that requires the state to collaborate with the state's national laboratories to address water challenges. The creation of the Drought Task Force in 2003 was in accordance with the requirements of the drought management plan, and the task force was reactivated two years ago in response to the current drought. She said that the ISC is currently updating the plan to include an overview of water supply and demand challenges and federal, state and local collaborative opportunities on water issues, including infrastructure needs. The regional water plans grew out of litigation with Texas in the 1980s, she explained, which made it evident that New Mexico had to actively plan for its water future by demonstrating its need for water supplies. These plans, which have been developed by all 16 planning regions in the state, must answer three questions, Ms. Haas explained: 1) what existing water supplies are in the regions; 2) what future demand will be; and 3) how to close the gap between the two. These plans also need to be updated, she noted.

Mr. Verhines discussed the Water Trust Board, pointing out that the board was created to implement the state water plan and that it prioritizes projects that are identified in regional water plans. He noted that he wants to work on how the board can implement the regional water plans. He also discussed the Ground Water Storage and Recovery Act, which allows for underground storage of surface water during times of surplus to be available during shortages, noting that only Alamogordo and Albuquerque are currently pursuing such projects.

Mr. Verhines went on to discuss active water resource management (AWRM), which was passed by the legislature in 2003 and is now being implemented after years of litigation. He said that AWRM is a tool that will allow the Office of the State Engineer (OSE) to administer water through two paths: administering by priority using the best information available; and alternative administration, which would not necessarily cut off use by junior water rights holders in times of shortage but instead would rely on negotiations and cooperation among users. For example, Mr. Verhines discussed an issue involving water use by acequias near the confluence of the Chama River and the Rio Grande, which acequias hold some of the oldest water rights in the state. He explained that instead of cutting off use by junior rights holders upstream, all of the users have agreed to use a rotation scheme that appears to be working.

Questions and comments from the subcommittee included the following:

- the possibility still exists for a priority call on the Chama River;
- alternative administration does not require unanimous agreement by all parties, but it is desirable;
- whether the priority administration system really works and how some other western states have addressed their water issues;
- AWRM history and basics, such as water rights transfers, monitoring and metering of diversions and the seven basins that the OSE has applied it to, plus the highest priority basins for implementation of AWRM;
- priority administration means junior water rights holders' use is curtailed until senior rights holders' allotments are satisfied;
- the concept of a futile call;
- data that show it could take five years after curtailing junior ground water users on the Pecos River before senior users in the CID began to receive more water;
- some San Juan/Chama water for Albuquerque is stored in Heron Lake;
- tribal entities are generally the senior water rights holders in a basin;
- the BOR stores some tribal water in El Vado Lake;
- the OSE has identified a number of critical management areas across the state;
- water rights generally cannot be transferred into critical management areas but can usually be transferred out, depending on the rules in place for that area;
- permits have been issued for new domestic wells in Dona Ana County;
- repealing AWRM is an invitation for more litigation;
- most of the work on developing draft rules for AWRM is done; and
- the OSE sometimes gets complaints of and investigates domestic wells being used for agriculture.

Update on the Pecos River Priority Call

Mr. Verhines provided the subcommittee with a brief history of the Pecos River Settlement Agreement, explaining that in order to ensure that compact delivery obligations are met, the state purchased significant amounts of land and water rights to retire, while other water users on the river reached an agreement on how best to distribute the remaining water. He pointed out that while the state is still meeting its Pecos River Compact delivery requirements to

Texas, pumping targets to supply downstream irrigators in New Mexico have not been met in the past couple of years and will not be met in 2013, resulting in water shortages for irrigators on the Pecos River, particularly those in the CID, one of the more senior water rights holders on the river. Recognizing this shortfall, the CID's board invoked a limited priority call under the Pecos River Settlement Agreement.

Aaron Balok, Pecos Valley Artesian Conservancy District, explained that there are no easy answers to the water shortages faced by all users on the Pecos River. He pointed out that it was difficult to reach the requirements of the settlement in the first place, and that while much of the settlement does work, some aspects of it could work better. Mr. Balok also said that the severity of the drought is a big factor in the water issues in the area.

Dudley Jones, CID manager, agreed that a lot of work had gone into the initial settlement but that the CID deliveries are down to four-tenths of an acre-foot this year. He explained that the last tool available to the CID to protect its farmers is to issue a priority call. Mr. Jones pointed out that the call is not a full priority call and that all the CID is asking for is 50,000 acre-feet. He also acknowledged that a full basin call would likely undo the whole settlement.

Mr. Verhines and Greg Lewis, OSE, explained that with invocation of the call by the CID, the OSE began developing a list of all of the junior and senior users in the basin. They noted that the next two steps are to update the modeling for the basin, contemplating several "what if" scenarios, and to expedite implementation of AWRM rules in the basin. Mr. Verhines and Mr. Lewis also indicated that the OSE had engaged all five parties to the settlement and have begun holding meetings to try to develop solutions that work within the confines of the settlement.

Questions and comments from the subcommittee included the following:

- a priority call has been made, but not outside of the settlement;
- even a full basin call would not likely net the 50,000 acre-feet of water that the CID is seeking;
- the state bought water rights in the area and is pumping water into the river, but the river is so low that even pumping at the maximum allowable volume would not net the water requested by the CID this year;
- CID farmers are not receiving the amount of water they thought they would get when they agreed to the settlement;
- the economic impacts of a priority call;
- none of the settlement parties wants to see the settlement unravel; instead, they just want to modify it;
- the connection between surface water and ground water and the delayed effect on river flows from curtailing ground water pumping;
- implications of the settlement unraveling and a priority call of the entire Pecos River Basin;
- the current situation may be an example of why strict priority administration will not

- always work, at least without catastrophic consequences;
- problems with the futile call concept and the idea that in the long run, no call is entirely futile; i.e., it may be futile with respect to delivery of water, but it may get junior users to the table;
 - the solution to the issue likely has to come in the form of money, a curtailment of junior users or a negotiated settlement;
 - among AWRM's mechanisms are expedited water transfers and agreements between senior and junior water rights users to deal with water shortages;
 - if this issue goes back to court, everyone will be subject to the court's interpretation;
 - a call could affect all cities and villages that are in the Pecos River Basin, such as Cloudcroft and Ruidoso; and
 - the notion that, through water licensing and a market-based economy, the problem will eventually correct itself if the state stops spending money and allows the market to function.

There being no further business, the subcommittee adjourned at 5:20 p.m.

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

**July 25-26, 2013
Clovis Civic Center, Clovis**

The second meeting of the Water and Natural Resources Committee was called to order at 9:45 a.m. on July 25 by Representative George Dodge, Jr., vice chair, in the Clovis Civic Center in Clovis.

Present

Rep. George Dodge, Jr., Vice Chair
Rep. Phillip M. Archuleta
Rep. Paul C. Bandy
Sen. Joseph Cervantes (July 25)
Rep. Dona G. Irwin
Rep. Emily Kane
Rep. Larry A. Larrañaga
Sen. Cliff R. Pirtle
Sen. Sander Rue
Rep. James R.J. Strickler
Sen. Peter Wirth
Sen. Pat Woods

Advisory Members

Rep. Gail Chasey (July 26)
Sen. Carlos R. Cisneros
Rep. Sharon Clahchischilliage
Sen. Lee S. Cotter
Rep. Anna M. Crook
Sen. Ron Griggs
Rep. Rodolpho "Rudy" S. Martinez
Sen. Cisco McSorley
Sen. Mary Kay Papen
Rep. Tomás E. Salazar
Sen. William E. Sharer
Rep. Jeff Steinborn

Absent

Sen. Phil A. Griego, Chair
Rep. Stephen Easley
Rep. Brian F. Egolf, Jr.
Rep. William "Bill" J. Gray
Sen. George K. Munoz
Sen. Benny Shendo, Jr.
Rep. Mimi Stewart
Rep. Don L. Tripp

Rep. Cathrynn N. Brown
Sen. Pete Campos
Rep. Nora Espinoza
Rep. Candy Spence Ezzell
Sen. Stuart Ingle
Sen. Gay G. Kernan
Rep. James Roger Madalena
Rep. W. Ken Martinez
Sen. Steven P. Neville
Sen. Gerald Ortiz y Pino
Sen. Nancy Rodriguez
Sen. John C. Ryan
Rep. Henry Kiki Saavedra
Sen. John Arthur Smith
Rep. Bob Wooley

(Attendance dates are noted for those members who did not attend the entire meeting.)

Guest Legislator

Rep. Yvette Herrell

Staff

Jon Boller, Legislative Council Service (LCS)

Gordon Meeks, LCS

Jeret Fleetwood, LCS

Guests

The guest list is in the original meeting file.

Handouts

Handouts and other written testimony can be found in the meeting file or on the New Mexico Legislature's web site.

Thursday, July 25

Representative Dodge began the meeting by having members of the committee introduce themselves.

David Lansford, mayor of Clovis, welcomed the committee members to Clovis and thanked them for coming.

Eastern New Mexico Rural Water Supply Project

Caleb Chandler, secretary, Eastern New Mexico Water Utility Authority (ENMWUA), provided the committee with a brief overview and history of the Eastern New Mexico Rural Water Supply Project, explaining that ground water resources in the region are being steadily depleted and that the project is based upon surface water storage in Ute Reservoir and delivery of that water via pipeline to area communities. He emphasized the importance of the project to the communities served by it, and said that with declines in aquifer levels in the region, the need for the pipeline is urgent.

Paul Van Gulick, project manager for the ENMWUA, explained that many communities in eastern New Mexico rely on ground water from the Ogallala Aquifer, which is steadily declining. For example, Mr. Van Gulick noted that an independent study of the aquifer indicated that the Portales well field's water level is declining about four-and-one-half feet per year, with only 40 feet of saturation remaining. Though the number of drinking water wells has increased from 28 to 64 since 2000, total production capacity has decreased from over 10,000 gallons per minute to less than 7,000 gallons per minute. He also listed the various entities served by the project, pointing out that Cannon Air Force Base, one of those entities, identified a reliable water supply as one of the critical keys to the base being able to continue its mission.

Barbara Crockett, a design engineer with CH2MHILL, discussed aspects of the project's construction. She explained that construction had begun at Ute Reservoir and that project managers understand how important the project is to the region and are trying to finish as quickly as possible. Ms. Crockett said that controlled blasting is being used to dig the shaft that will be used to pump water from the reservoir to the pipeline and that while there was initially some concern over blasting so close to homes, consultants from the New Mexico Institute of Mining and Technology confirmed that everything is safe.

Robert Lumpkin, a Tucumcari city commissioner, provided the committee with concerns expressed by residents in Tucumcari and the Ute Reservoir area. He explained that the communities in the area depend on a certain level in the reservoir being maintained for recreational use, which brings money into the local economy and provides jobs for at least 300 people in the area. Mr. Lumpkin also said that water levels in Ute Reservoir have been steadily declining and that the drought management plan would bring levels down even further, at which point water quality issues would begin to emerge. He also noted that while recreation is not recognized as a purpose for which the reservoir was created, visitors come to the reservoir from five states, in part because all of the other reservoirs in the area are empty.

Mr. Lumpkin suggested establishing a minimum pool for the reservoir, and that pumping would have to cease if the reservoir falls below the minimum line. He also pointed to research that a Texas community had done on pumping and treating brackish water from a Santa Rosa aquifer as a potential water source for the region. Mr. Lumpkin also suggested that a wind farm would bring jobs to the area.

Questions and comments from the committee included the following:

- total cost of the project would be about \$500 million in 2009 dollars;
- the state's share of the project is \$75 million;
- Water Trust Board grants and capital outlay appropriations have been made each year for individual pieces of the project;
- the Eastern New Mexico Rural Water Supply Project is a good example of a successful large-scale water project;
- 16,400 acre-feet per year will be allowed for the project;
- Ute Reservoir was originally built as a water storage project for municipal and industrial use, not for recreational use, but the ENMWUA wants to maintain recreation as a benefit to the region;
- a \$1-million, 1,700-foot test well was drilled in 2010 to explore the option of using brackish water to supply the area with drinking water, but the poor quality and quantity of water from the well were not encouraging;
- Clovis does have water reuse/effluent programs in place;
- conservation is an important component of any water use plan; and
- the cost of water for a residential user should not change much once the project is fully implemented.

Use of Recoverable Water

Scott Verhines, state engineer, provided the committee with testimony regarding recoverable water, which he explained could be brackish water, produced water, gray water or treated effluent. He noted that some work has gone into treating recoverable water and using it as direct, potable water, pointing out that Cloudcroft has considered treating recoverable water and blending it with water from other sources to extend its limited water resources. Mr. Verhines also pointed out that a brackish water development project in El Paso is now part of the city's regular water portfolio. He noted that the booming oil and gas industry in Lea County still uses fresh, potable water for oil and gas exploration, so it might make sense for the committee to look at ways of transitioning the industry away from potable water to some other source.

Questions and comments from the committee included the following:

- if water produced by oil and gas exploration is treated and cleaned, the party that treated the water is entitled to use it or sell it;
- some confusion exists in the oil and gas industry over ownership of produced water;
- New Mexico may want to look at guidelines for cities to use recoverable water;
- the cleanup process of brackish water depends on what kind of contaminants are in the water; and
- costs also depend on contaminants and contaminant levels.

Right to Farm Legislation

Beverly Idsinga, Dairy Producers of New Mexico, began by explaining that feed costs for dairies have been steadily increasing over the past several years. With 40 percent of corn production being used for ethanol production, feed costs have skyrocketed since 2005, she explained, and the drought has only exacerbated the problem.

Walter Bradley, Dairy Farmers of America, noted that New Mexico has been steadily losing dairies. He explained that the agricultural industry in the state is under attack and that the attack began with nuisance lawsuits being filed against dairies by out-of-state law firms. Mr. Bradley said that the Center to Expose and Close Animal Farms is behind the suits, which have also been filed in other states and are filed on behalf of plaintiffs who have mostly moved in after the dairies were established. He went on to explain that while right-to-farm legislation has been on the books for some time and is intended to protect farmers, the statutes fail to define improper or negligent operations. Mr. Bradley explained that the Center to Expose and Close Animal Farms has filed lawsuits against 11 dairies on the grounds that they are operating improperly, in spite of the fact that most of the dairies in Dona Ana County are actually zoned to be there. He also said that the attack on agriculture will not stop with dairies and that right-to-farm legislation will at least stop future suits from being filed. Finally, Mr. Bradley discussed the economic impacts of closing dairies, saying that while dairies account for about \$2 billion in business, adding associated businesses, such as cheese factories, trucking companies and ice cream companies, brings the total to between \$5 billion and \$6 billion.

Eddie Scott, who owns a dairy in the Clovis area, explained that he is a defendant in one of the lawsuits. He said that the lawsuit filed against his dairy states that it is a nuisance because of the smell and the large number of flies the dairy attracts, even though flies have always been associated with dairies and similar operations. Mr. Scott also discussed the stress the lawsuit has caused him and his family, casting doubt on his hopes of passing his dairy on to his family.

T.J. Trujillo, Gallagher and Kennedy, P.A., explained that right-to-farm legislation exists in all 50 states, although it takes different forms in different states. He said the legislation was originally designed to protect farmers from nuisance lawsuits and that the law in New Mexico has not kept up with laws in other states, so that there are gaps in New Mexico's laws now. For example, Mr. Trujillo noted that terms such as "negligent" and "improper" are ambiguous. He suggested that the law needs to be updated in order to provide a statutory framework that protects the agricultural industry.

Questions and comments from the committee included the following:

- food producers are no longer a high priority for American policymakers;
- there are limited options available to protect those dairies that have already had lawsuits filed against them;
- the changing nature of farming in America;
- dairies tend to offer decent wages and have improved the profitability of farming as a whole;
- there is some danger to surrounding communities if nearby dairies are shut down, as dairies have helped create new wealth in New Mexico;
- dairies are already highly regulated, and it would be difficult for them to be negligent if they are in compliance with all regulations;
- the \$6 billion in economic impact of shutting the dairy business down is roughly the same as the entire budget for the State of New Mexico;
- right-to-farm bills introduced during the 2013 session died in the House Judiciary Committee or on the Senate floor;
- there are plans to bring the bills back for the 2014 session;
- it is becoming more difficult for dairies to secure insurance policies;
- both sides of the issue need to be careful, particularly when considering removing the term "negligence" from the law; and
- laws in the United States never contemplated industrial-scale farming.

Thermal Energy from Forest Biomass and Renewable Energy Portfolio Standards

Brent Racher, president of the New Mexico Forest Industry Association, began by explaining that much of the cost of wildfires is paid on the back end of the event for rehabilitation of the forest, watersheds and infrastructure and rebuilding of local economies. The full cost of wildfires in the state over the past three years is estimated to exceed \$1.5 billion, he said. He noted that while thinning watersheds can help prevent or mitigate the effects of large, catastrophic wildfires, there is currently no market for the small-diameter trees and forest-thinning products from watersheds, which are unsuitable for use as timber and considered waste

materials from forest and watershed restoration projects. Mr. Racher said that using forest-thinning products for thermal energy could help create a market for products, thereby making it profitable for the forest industry to thin watersheds. He pointed out that such a situation would be a win for the watersheds and a win for industry, particularly as utility companies seek to expand their renewable energy portfolios. Mr. Racher explained that a bill allowing renewable energy certificates to be issued for thermal energy originating from such biomass was introduced during the 2013 session, but the bill died in the House Energy and Natural Resources Committee.

Questions and comments from the committee included the following:

- there has to be a market for forest-thinning products or taxpayers will have to pay for watershed thinning;
- watershed thinning would help both forest health and water supply;
- long-term contracts with the U.S. Forest Service (USFS) are possible, but there are limited ways of structuring them;
- some uses for thinned trees use only part of the tree, but to make thinning attractive to industry, 100 percent of the tree has to be used;
- Louisiana had a good public/private partnership after Hurricane Katrina to harvest downed trees;
- USFS cooperation could help with pilot programs and private industry involvement;
- private, federal, tribal and state lands all need forest and watershed treatment; and
- some policy tweaks could help incentivize private industry to become involved with forest treatment.

Federal-State-Local Cooperation in Forest Watershed and Fire Management

Kent Reid, interim director of the New Mexico Forest and Watershed Restoration Institute (NMFWRI), one of three such institutes in the nation, began by saying that a large-scale forest management approach needs to be undertaken. He went on to note that the NMFWRI recognizes the need to collaborate on forest management projects and does so with federal, state, tribal and local governments as well as private industry, nongovernmental organizations and local residents. All government agencies involved in forest management, he noted, are required to cooperate, communicate and collaborate in their planning processes. Mr. Reid explained that the USFS's planning rule governs how national forest management plans are written, and that the Forestry Division of the Energy, Minerals and Natural Resources Department also produces documents that govern forest management, underscoring the need for agencies to collaborate with one another. He also pointed out that a recent meeting of stakeholders from public institutions and private interests developed 18 forest restoration principles, with collaboration being the number-one principle identified. All three memorials dealing with forest management issues that passed last legislative session, he said, emphasized collaboration and cooperation in managing the state's forests and watersheds.

Tony Delfin, New Mexico state forester, began his testimony by thanking New Mexico's firefighters and noting that since most western states share fire resources, the 19 Arizona firefighters who were killed while fighting a fire in their home state had been in New Mexico

several weeks ago. Mr. Delfin went on to discuss several of the large fires that New Mexico has experienced over the past few years, pointing out that most of them had direct impacts on watersheds. He also said that New Mexico faces long-term forest health challenges, with drought causing stress to forests, which often correlates with insect outbreaks, declining forest health and wildfire occurrence. Mr. Delfin also noted that wildfires are occurring under more and more extreme conditions, with high temperatures, low humidity and strong and erratic winds that make the trees and other vegetation standing in the forests nearly as dry as firewood stacked outside of a house. He said such extreme conditions tend to lead to uncharacteristic fire behavior. Mr. Delfin went on to point out that despite recent monsoon rains, drought conditions still persist. He also said that the situation in forests is complicated by declining federal spending in the state, which fell from \$7.2 million in 2008 to \$1.7 million in 2012, and that institutional impediments take a long time to address.

Pat Jackson, chief of staff for the Southwestern Regional Office of the USFS, said that he is passionate about restoring U.S. forests and that the USFS is a major player in forest restoration, that it is behind the curve and that all players are needed on the field to address the effort. He said there are two reasons why much of the forests are too dense and unhealthy: overgrazing in the 1800s and fire suppression by the USFS in the 1900s. He explained that the resulting overstocked, unhealthy forests contribute to catastrophic wildfires and invasive species outbreaks. Mr. Jackson went on to discuss some of the larger fires in New Mexico during the past few years, the Las Conchas fire in particular, noting how quickly they grew and the damage they caused to surrounding communities. He also discussed the elements that successful landscape restoration will require, such as environmental analysis on a much larger scale and collaborative work across boundaries and between agencies. Mr. Jackson brought up the Four-Forest Restoration Initiative, a project to restore 2.4 million acres across four national forests in Arizona, which he explained is the largest stewardship project in USFS history. He also noted a smaller but similar project in the southwest Jemez Mountains. Mr. Jackson went on to discuss what restoration means, explaining that it entails moving overstocked forests to more desirable open, uneven conditions. He provided the committee with examples of how a properly restored forest should look, pointing out the much smaller number of trees per acre, with trees grouped with interlocking crowns and all age classes of trees interspersed. Mr. Jackson explained that desired conditions may not be attainable in a single treatment and discussed some of the challenges in attaining those conditions, such as funding, work force, industry capacity and the smoke and air quality concerns that come with some treatment efforts. However, he said that reaching desired forest conditions will reduce the severity of fires and offer increased flexibility for managing fires.

Joy Esparsen, New Mexico Association of Counties (NMAC), discussed partnerships that the NMAC had begun in 2003 with the Bureau of Land Management (BLM), noting that California counties are somewhat more advanced than those in New Mexico when it comes to managing lands to limit fire damage. She noted that the BLM offers a grant program that has helped entities work together more closely, pointing out that both the Forestry Division and the

USFS have become involved with the program, too. Ms. Esparsen said that communities are becoming smarter in their approach to fire.

Mr. Racher discussed various aspects of forest health and fire issues. He said that watersheds and water are important pieces of the puzzle and that society is paying for past mistakes, such as a 100-year emphasis on fire suppression. Mr. Racher also noted that while no one has all of the answers, enough answers exist to begin action, which some communities and private landowners have done. He also said that because of the number and intensity of recent forest fires, forests are becoming a carbon source rather than a carbon sink. Mr. Racher went on to point out that forest health is a statewide problem and should be approached that way. He also said that fires on private land are a problem for more than the landowner because flooding affects everyone in the area. Mr. Racher then said that public/private partnerships can be a key to incentivizing forest restoration and that biomass plants need access to capital and a guaranteed wood supply to operate successfully.

Laura McCarthy, director of conservation programs for the New Mexico field office of The Nature Conservancy, talked about the effects of wildfire, citing concerns over increasing areas of high-severity burns, post-fire flooding and debris flows and water quality. She showed the committee a brief video of the flooding at the Dixon apple orchard after the Las Conchas fire and discussed the high costs of wildfires on people, wildlife and the environment. Ms. McCarthy went on to discuss proactive treatments, such as forest thinning, stream restoration and flood mitigation, noting that there is sound science behind Mr. Jackson's testimony. She also said that forest thinning should help snowpack, which should yield more water during spring runoff. Ms. McCarthy also provided the committee with debris flow maps based on computer modeling and suggested that forest treatments need to be accelerated. She cautioned that doing nothing will only serve to make New Mexico's water situation worse. Finally, Ms. McCarthy suggested the creation of a wildfire and water source protection fund to finance the efforts to restore forests, which she said could be funded by dedicating part of the insurance premium tax to the fund. She said that New Mexico Superintendent of Insurance John Franchini noted that insurance companies tend to think in the long term and may be receptive to something that helps prevent or mitigate the effects of catastrophic forest fires, which can cost them significantly.

Questions and comments from the committee included the following:

- the fact that federal, state and local agencies, private industry, environmental organizations and a university program are all cooperating and collaborating on forest management issues is encouraging;
- whether increasing or reallocating a portion of the premium tax is the best way to finance the suggestions of the panel;
- decisions on continuing forest management include the reintroduction of natural fire;
- a Sacramento Mountains restoration study shows that Cloudcroft, being surrounded by forest, is under constant threat from wildfire;
- spending on fires in New Mexico was \$10 million in 2013, down from \$22 million in 2011;

- The Nature Conservancy and soil and water conservation districts work together;
- though work is being done now to bring forests to desirable conditions, it is not on the scale it needs to be;
- some coordination has been done between New Mexico and Colorado, and a project involving New Mexico, Colorado and Arizona will commence this fall;
- the worst thing policymakers could have done for endangered species was to allow forest conditions to reach this point;
- a significant amount of forest thinning has to be done mechanically, so the USFS granting access is important;
- polling indicates that the public is receptive to increased taxes for water quality and protection;
- specific proposals regarding the number of acres to be treated and the estimated cost would be helpful for the legislature;
- the change in the number of trees per acre in the Sacramento Mountains over the last 50 years;
- it is difficult for government agencies to change the way they do business; and
- the USFS can open the forests to private industry as long as procedures are followed.

On a motion made, seconded and approved, the minutes of the June 10, 2013 meeting were approved as submitted.

The committee recessed at 5:10 p.m.

Friday, July 26

Technology for the Recycling of Water

John Vincent, Aquanox, Inc., talked about water recycling, particularly on large cruise ships and how that technology can be applied to areas facing water shortages. He explained that cruise ships often have up to 6,000 passengers and must recycle water every day to drinkable standards using bacteria and aeration. Mr. Vincent provided the committee with more detailed testimony regarding how ships recycle water, noting that one of the keys is determining the proper bacteria-to-water ratio based on how much waste material is in the water. He also noted that ships produce waste from a variety of streams, which become blended during treatment, and that some waste winds up in a ship's sludge tank. Mr. Vincent explained that the system uses submerged membrane technology.

As he provided his testimony, Mr. Vincent also pointed out ways in which Clovis could make better use of its water supply and to employ water recycling technology. For example, he noted that while Clovis already has water use programs in place, such as the effluent used to water city parks, the city does not face the time and space constraints that a cruise ship does, so some type of expanded recycling program might be a good fit. Mr. Vincent also noted that water used in cooling towers could easily be recycled.

Questions and comments included the following:

- how New Mexico communities can take advantage of newer water recycling technology;
- Alamogordo and Tularosa have built water treatment plants recently, and while they were expensive, some additional costs to implement better technology might warrant consideration in future plants;
- a lot of the newer water recycling technology comes from Europe;
- very few cities in the United States have experience with new water treatment technology, but plants in many cities are growing older and will require replacement in the near future; and
- use of newer technology to treat brackish water.

Geothermal Power and Energy Efficiency

Keven Groenewold, executive vice president of the New Mexico Rural Electric Cooperative Association, began by giving the committee an overview of the operations of rural electric cooperatives, providing a map showing the service areas of the various cooperatives in the state. He also noted that several cooperatives have begun to explore the use of geothermal power.

Jerry Partin, general manager and executive vice president, Roosevelt County Electric Cooperative, Inc., explained that in 2009, Xcel Energy decided to exit the wholesale power business, leaving four New Mexico co-ops without a power supply after 2015. Mr. Partin said that the four co-ops have joined the Western Farmers Electric Cooperative (WFEC), based in Anadarko, Oklahoma, but that the WFEC will have to build new capacity to supply the four New Mexico co-ops. However, he explained, his co-op is trying to reduce the need for new capacity by reducing demand and by encouraging the use of renewable energy by its customers. Also, while New Mexico has its share of wind and solar energy, it also has geothermal energy that can be used to reduce the amount of electricity needed for residential heating and cooling. Mr. Partin went on to explain how the use of ground source heat pumps works to heat and cool homes, pointing out that such a system works in conjunction with the seasons to make the system much more efficient.

Eric Austin, commercial and industrial marketing manager for the WFEC, explained how geothermal heat pumps work to heat and cool homes and why such systems are a natural fit for renewable energy certificates. He explained that the WFEC currently has a pilot program under way that will show that geothermal heat pumps result in less overall power demand for residential users, lower demand costs for utilities and lower peak usage for utility plants.

Questions and comments from the committee included the following:

- the increased cost of installing geothermal heat pump systems versus a conventional heat pump can be offset by tax credits, but it is still somewhat expensive for residential users;
- the WFEC is helping Roosevelt County customers finance their systems;

- it takes about seven to 10 years to break even on system costs;
- the WFEC can help 15 to 20 customers per year with financing and installations of geothermal systems;
- the efficiency of vertical versus horizontal geothermal system loops;
- software helps installers determine which kind of loop and size will work best for each home;
- conductivity of each loop depends on soil moisture, and horizontal loops are a bit easier to model;
- whether or not Tri-State Generation has a five percent cap on the amount of renewable energy that co-ops may run through their lines;
- transmission and storage issues associated with solar and wind energy; and
- while a cap is imposed by some utilities on self-transmission, most users do not approach the cap.

The Future of Farming in America

James Bostwick, state chair of the Farm Service Agency, briefed the committee on the challenges faced by today's farmers. He explained that the United States Department of Agriculture defines a farm as an agricultural operation that generates at least \$1,000 in sales per year. Mr. Bostwick went on to note that the average age for farmers and ranchers is steadily rising (it is now about 60 years old) while the number of farms in the country continues to decline, which he said is perhaps the biggest problem facing the farming industry. He also noted that farms today generate more produce on fewer acres than farms 50 years ago. Mr. Bostwick also discussed the price Americans pay for food, noting that families in the United States spend a smaller portion of their income on food than families in other countries, particularly developing countries. He pointed out that part of the taxes citizens pay each year goes toward ensuring that domestic food supplies are safe. Mr. Bostwick went on to note that while crop insurance really means that most farmers get a bill, rather than a check, it does make younger farmers appear more financially viable to banks. He also pointed out that farmers have little control over the prices their products fetch, with which policymakers might be able to help. Finally, Mr. Bostwick said that farmers need access to reliable data to help them make informed decisions.

Questions and comments from the committee included the following:

- the United States produces the cheapest, safest produce in the world;
- as China buys U.S. companies, such as Smithfield Foods, control over the world's food supply is shifting away from the United States;
- no large, conglomerate companies have attempted to buy New Mexico farms or companies yet;
- China's importation of U.S.-grown food may increase the cost of food to domestic consumers;
- some cities with a lot of restaurants emphasize the use of local produce, which helps some farmers;
- any effort to support local growers and food security helps;
- use of food stamps at farmers' markets;

- use of estate planning to help keep farms in the family; and
- if farmers stop producing food, it will take about 40 days for consumers to really begin to notice the lack of fresh produce.

Representative Dodge explained that an individual was not able to speak during the presentation about the Ute pipeline project. Greg Neal, Concerned Citizens of Curry and Roosevelt Counties, provided the committee with a presentation asking that the ENMWUA work with citizens and consider alternatives to the project. He said that broader, more cost-effective solutions to eastern New Mexico's water shortage issues are likely available. Mr. Neal pointed out that similar projects in neighboring states have not turned out well and suggested that surface water is not a viable option for supplying the region with water. He also provided the committee with photographs showing the already low water level at Ute Reservoir, suggesting that the reservoir will not be able to provide the amount of water the project requires. Mr. Neal went on to say that the project will hurt tourism and development, noting that property values near the reservoir have fallen over 40 percent since construction on the project was announced. He also cited a study by Dr. Bruce Thompson that indicated that Ute Reservoir cannot sustain the water withdrawals imposed by the project. Mr. Neal suggested that project leaders look instead at the Santa Rosa/Dockum Aquifer for water supplies. Finally, he asked that construction on the project facilities cease, along with the use of state funds, until alternatives can be explored.

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

**MINUTES
of the
THIRD MEETING
of the
DROUGHT SUBCOMMITTEE**

**August 28, 2013
San Juan College, Farmington**

The third meeting of the Drought Subcommittee of the Water and Natural Resources Committee was called to order on August 28, 2013 at 12:15 p.m. by Representative Brian F. Egolf, Jr., vice chair, in the Henderson Fine Arts Center at San Juan College in Farmington.

Present

Sen. Joseph Cervantes, Chair
Rep. Brian F. Egolf, Jr., Vice Chair
Rep. Phillip M. Archuleta
Sen. Steven P. Neville
Rep. Tomás E. Salazar
Sen. Peter Wirth
Sen. Pat Woods

Absent

Rep. Rodolpho "Rudy" S. Martinez
Sen. John Arthur Smith

Advisory Members

Sen. Carlos R. Cisneros
Sen. Mary Kay Papen
Rep. Don L. Tripp
Rep. Bob Wooley

Rep. Cathrynn N. Brown
Sen. Stuart Ingle
Rep. Larry A. Larrañaga

Guest Legislators

Rep. Paul C. Bandy
Sen. Phil A. Griego
Rep. Thomas C. Taylor

Staff

Jon Boller, Legislative Council Service (LCS)
Jeret Fleetwood, LCS

Guests

The guest list is in the original meeting file.

Handouts

Handouts and other written testimony can be found in the meeting file or on the LCS web site.

Wednesday, August 28

Implication for the Management of Domestic Wells and Domestic Well Management Areas in View of the *Bounds* Decision

DL Sanders, chief counsel for the Office of the State Engineer (OSE), began by providing the subcommittee with a brief history of New Mexico's domestic well statute, explaining that before 1953, the process for obtaining a domestic well permit was the same as for all other applications for new appropriations of water, with the requisite publication of notice of application and opportunity to protest by other water rights owners. Given the small amount of ground water diverted to meet household needs, he explained, this cumbersome process should be streamlined. In 1953, the legislature enacted the domestic well statute, which allowed the issuance of domestic well permits without a lengthy administrative process. Since then, Mr. Sanders noted, tens of thousands of domestic well permits have been issued, and since the 1990s, legislation to limit the proliferation of domestic wells has been introduced in nearly every legislative session. He went on to explain that in 2006, Horace and Jo Bounds challenged the constitutionality of the domestic well statute. Mr. Sanders said that the Bounds had subdivided their land and drilled wells and had asked the OSE to curtail the water use of some junior users in the basin. Mr. Sanders pointed out that in order to curtail junior users, the senior user must demonstrate impairment, but the Bounds could not demonstrate impairment because they had not installed water meters. He explained that there were three complaints in the *Bounds* lawsuit: that the domestic well statute is facially unconstitutional; that it is unconstitutional as it is applied; and that it is a deprivation of due process. However, Mr. Sanders explained, the New Mexico Supreme Court ruled in favor of the OSE and the domestic well statute on all three claims, noting that there is a difference between a water right and the actual use of water, given that under the priority system, a junior water right owner may not have a right to use any water if senior users' rights are impaired.

Marvin Magee of the New Mexico Ground Water Association began by noting that the American Water Works Association estimated in a 2012 report to the United States Congress that a \$900 billion funding gap for drinking water infrastructure repair will develop in the nation over the next two decades. Mr. Magee also noted that communities in New Mexico are struggling to maintain, repair and budget for future improvements to their water systems, and grants and low-interest financing are not as easy to obtain as they once were, making it difficult, if not impossible, to maintain antiquated systems. He also said that domestic wells are a safe, affordable alternative to expansion of public water supply systems and cited several domestic well projects that are estimated to cost less than public water system repair or installation. Mr. Magee also cited some of the benefits of domestic wells, such as safety, affordability and efficiency. He went on to point out that while OSE records do not reflect the actual number of wells in use, overall domestic well use accounts for less than two percent of all water use in New Mexico. Finally, Mr. Magee cautioned that if the legislature were to severely restrict the issuance of domestic well permits, the economic impacts, such as plummeting rural property values and the financial burden placed on already taxed public water systems, would be far reaching. Instead, he suggested the development of conservation and reasonable domestic well

management area restrictions and noted that the New Mexico Ground Water Association supports the metering of wells statewide and the establishing of annual withdrawal limits.

Jack Milarch, executive vice president and chief executive officer of the New Mexico Home Builders Association (NMHBA), noted that many debates occur over growth and sprawl and that, while water is a part of that discussion, there are other issues at work. He indicated that the NMHBA supports active water resource management and the OSE's efforts to address domestic well issues, particularly in some areas of the state, because there is a need for a more sustainable system of administering water rights. Mr. Milarch also noted that work must be done to address the pollution of ground water, particularly from septic tanks, and the NMHBA supports septic tank regulations. He pointed out that wells can be a good alternative to municipal water and discussed some of the methods employed by other states to address domestic well issues, such as Texas' restrictions on pump size. Mr. Milarch went on to say that while many new home features reduce water use, such as shower heads that restrict flow and low-flow toilets, technology such as recirculating pumps can go even further in the reduction of water use. He also encouraged the development of a more efficient market for small amounts of water, noting that it currently takes over a year for many transfers of existing water rights.

Pat Casey, president of the NMHBA, began by discussing the effects of the *Bounds* case, explaining that it is tough to pinpoint the real effects because one source of water affects other sources. He also noted that public water systems do not account for much of statewide water use, with total domestic well use adding up to about two percent of the total state water supply. Mr. Casey indicated that, in light of the relatively small amount of water that domestic well use accounts for, changes to domestic well regulations will likely not have much effect on total state water use but could have devastating economic effects for homebuilders. Mr. Casey pointed to water loss in irrigation canals and leaks in water systems as signs that water infrastructure throughout the state needs improvement. In Silver City, he explained, the water system was losing 22,000 gallons of water per day, which added up to over eight million gallons a year. He also discussed water recirculating pumps as a good way of conserving water because the amount of water lost while waiting for tap water to heat up is significant, and he stressed the need for everyone to conserve water.

Questions and comments from the subcommittee included the following:

- some of the controversy over domestic wells has died down because homebuilding and growth have slowed and the OSE has promulgated domestic well rules;
- rules regarding well drilling and construction address the issue of rainwater polluting ground water through a seal at the surface;
- nothing is established in code, but homebuilders can install black and grey water segregation systems;
- utilities need to charge enough to be able to cover infrastructure repair;
- rules have been created for several domestic well management areas, such as the Mimbres Valley, the lower Rio Grande and the Chama River;

- the process for getting users off of individual wells and into mutual domestic water consumers associations (MDWCAs);
- transfer of water rights and "seed water" for MDWCAs;
- progress of the OSE on promulgation of domestic well rules;
- the first well owner in an area tends to drill a somewhat shallow well, while subsequent well owners dig deeper wells; however, lowering the aquifer is not an impairment;
- resistance by some groups to the adding of water conservation technologies to the building code is based on the fact that each home is different and that mandating technologies can lead to problems;
- statewide water use numbers can be misleading;
- Water Trust Board rules and regulations have had an adverse effect on water system financing for small communities;
- the *Bounds* decision says the legislature gives the authority to regulate domestic wells to the OSE, but the responsibility still rests with the legislature;
- law versus hydrology when it comes to well impairment;
- well drillers and well users are in a race to the bottom of the aquifers; and
- it takes about three years to compile statewide water-use charts.

Colorado River Basin Water Supply and Demand Study (CRBS) — Implications for New Mexico — Water Use Efficiency, Reuse and Transfers, Watershed Management and Environmental Flows

Carly Jerla, co-study manager, CRBS, for the U.S. Bureau of Reclamation (BOR), began by providing the subcommittee with an overview of the CRBS, explaining that it is intended to assess future water supply and demand imbalances for the next 50 years. She noted that the study will also provide development and evaluation of opportunities for resolving some of those imbalances, but she emphasized that the CRBS is a planning study and does not suggest decisions; rather, it provides the technical foundation for future activities. Ms. Jerla began by showing that the water supply in the Colorado River Basin has steadily declined over the past 100 years, while water use has continued to increase. She added that the projected demand will likely outpace supply, and a 10-year imbalance of about 3.2 million acre-feet of water is projected 50 years out. She pointed out that imbalances have occurred in the past, but deliveries have been met due to reservoir storage. Ms. Jerla went on to provide the subcommittee with a summary of options submitted to the study, which range from increased supply to reduced demand to modified operations. She also discussed various portfolios, or futures, and their potential for vulnerability. To summarize, Ms. Jerla explained that the system is vulnerable if no action is taken and that taking some action reduces that vulnerability and makes the system more resilient. She also touched on potential short- and long-term actions.

Ms. Jerla went on to discuss the next steps after the survey, explaining that addressing future imbalances will require diligent planning and collaboration. She also noted that multi-stakeholder coordination teams have been formed, with the following work groups scheduled to meet and report back to the CRBS group:

- Municipal and Industrial/Conservation/Reuse Work Group;

- Agricultural Conservation and Transfers Work Group; and
- Environmental/Recreational Flows Work Group.

Ms. Jerla also pointed out that there are state- and BOR-led efforts under way. She said that phase one of the coordination team's work is under way and should be completed by the summer of 2014.

Estevan Lopez, director of the Interstate Stream Commission (ISC), explained that the ISC is the primary study participant from New Mexico, particularly with regard to cost-sharing and in-kind services. He noted that New Mexico's interest is in both the upper and lower basins of the Colorado River — the upper basin because the state gets most of its share of the upper basin states' allotment from the San Juan River, and the lower basin because the Gila and San Francisco river basins eventually flow into the Colorado River. Mr. Lopez explained that New Mexico is interested in protecting its supply of water from the Colorado River Basin. New Mexico also participates in the CRBS because attempts to quantify water supply shortages on the river have revealed just how large these shortages are, in particular in the lower basin states, and everyone will be involved in arriving at a solution to address these shortages. He emphasized that there is no silver-bullet solution that will solve shortage issues, but, rather, the answer lies in many smaller-scale projects that target both supply and demand and chip away at shortages. Mr. Lopez went on to explain that with the implementation of the Navajo water rights settlement, all of New Mexico's Colorado River Compact share of water has been allocated to New Mexico and that, while the upper basin has experienced water shortages, the vulnerabilities in the lower basin are much larger.

Steve Harris, executive director of Rio Grande Restoration, explained to the subcommittee that he was speaking on behalf of Melinda Kassen, a member of the Environmental/Recreational Flows Work Group who had written many of the suggestions offered to the work group. He said that stakeholders and river managers should seek agreement on rivers in order to maintain their key ecological attributes, noting that several tools are available to maintain these flows. Mr. Harris pointed out that Colorado River recreation represents a \$26 billion industry, providing over 250,000 jobs, with a \$1.7 billion impact in New Mexico alone. He said that there are many strategies available for addressing issues on the river. He suggested that all of them be considered and noted his favorite suggestions, such as metering agricultural use, creating a drought reserve and creating ground water subdistricts that can charge fees for pumping. He also suggested granting the ISC enough funding to conduct a Rio Grande Basin study.

Kayrene Brothers, representing the CRBS Municipal and Industrial/Conservation/Reuse Work Group, explained that her group discussed four portfolios to address river imbalances but focused more on two portfolios because they are less energy intensive than scenarios such as importing water or desalination. However, she acknowledged that implementation of any portfolio will likely cost billions of dollars. Ms. Brothers emphasized that conservation represents a significant portion of the "low-hanging fruit" available to address imbalances, and

conservation needs to be studied and conservation implemented in all basins. She also noted that an additional savings of one million acre-feet from municipal/industrial conservation is needed.

John Longworth, a member of the CRBS' Agriculture Conservation/Transfers Work Group, explained that formation of the work group is the next step in the basin study. He said that the Agriculture Conservation/Transfers Work Group includes members from all seven Colorado River Basin states, along with several nongovernmental organizations and irrigation districts, and the group's charge is to collect information on agricultural conservation and water transfers. Mr. Longworth pointed out that the Imperial Valley agricultural diversion alone accounts for millions of acre-feet of water. He also noted that the group identified a ripple effect from the practice of buying agricultural water rights and transferring them to other uses. Mr. Longworth also said that the work group spent some time developing definitions that the members all agreed on, such as definitions for consumptive and non-consumptive use, return flows and saved water. He concluded by acknowledging that the problem of imbalances on the Colorado River is a very real one that the states have known about for some time.

Victor Marshall, an attorney for the San Juan Agricultural Water Users Association, expressed concerns he has regarding the BOR report on the Colorado River Basin. He said that water supply issues will continue to be a problem for the next 50 years. Mr. Marshall said that while the Navajo water rights settlement allocates all of New Mexico's share of water from the Colorado River Compact, delivery obligations arising from the federal Endangered Species Act of 1973 (ESA) will make it impossible to provide the amount of water necessary to fulfill the terms of the settlement. He noted that the ESA requires 700,000 acre-feet per year (a/f/y) to be sent down the San Juan River. Consequently, he said, New Mexico will be 700,000 acre-feet short each year.

Questions and comments included the following:

- the San Juan and Animas rivers provide surface water to New Mexico, while the Gila and San Francisco rivers are tributaries of the Colorado River;
- cities that receive at least some of their drinking water from the Colorado River Basin include Albuquerque; Santa Fe; Denver; Phoenix; Salt Lake City; Las Vegas, Nevada; Tucson; San Diego; and Los Angeles;
- the Navajo water rights settlement allocates 326,000 a/f/y to Navajo water users, and the rest of New Mexico's San Juan River water is divided between the San Juan-Chama project (106,000 a/f/y) and non-native irrigators (200,000 a/f/y);
- without a settlement, Navajo claims could potentially take all of the water New Mexico is entitled to under the Colorado River Compact;
- claims that New Mexico will be short 700,000 a/f/y due to ESA requirements are highly flawed and completely inaccurate;
- the impact of drought and fires on the Colorado River supply in that most reservoirs were full in 2000 but are now at particularly low levels;
- many in the lower Colorado River Basin believe desalination and importing water are key strategies, but those kinds of projects take a long time to develop, fund and build;

- the Navajo water rights settlement allocates for all of New Mexico's share of Colorado River water, but it does not displace non-native water users; it helps mitigate the impact of future shortages and avoids costly litigation that could displace some users;
- desalination projects look at coastal locations for plants that would return byproducts to the ocean;
- both water supply and demand need to be examined;
- the cost of water desalination plants is beginning to come down, making such projects a bit more viable;
- cutting off or limiting agricultural water will have an impact on food supply;
- each Colorado River Basin state handles water shortages and the equivalent of priority administration differently, but each state has to stay in Colorado River Compact compliance;
- lower basin states are already conducting water shortage negotiations;
- Arizona, Nevada and Mexico will be subject to shortages once reservoirs drop below a certain level, while California is currently exempt from such shortages; and
- a form of water banking already exists in the lower Colorado River Basin.

Subcommittee Discussion and Questions

Senator Cervantes explained that he set aside some time for the subcommittee to discuss whatever subcommittee members wished to discuss.

In response to a question from Senator Griego, Mr. Lopez explained that when New Mexico stores compact delivery water downstream in Elephant Butte Reservoir, the state is responsible for some of the lake's evaporative loss. However, he said that the current operating agreement between the Elephant Butte Irrigation District and El Paso County Water Improvement District #1 does not hold Texas accountable for evaporative losses in Elephant Butte Reservoir.

In response to a question from Senator Wirth regarding the tension between water conservation and the law, Mr. Sanders and Mr. Longworth noted that one of the concepts in New Mexico water law is "use it or lose it", explaining that water must be put to beneficial use or the right is subject to forfeiture if not put in an approved conservation program or if it is not part of a city's 40-year water plan. They also noted that water rights holders, no matter how old their rights, are entitled to only as much water as they can beneficially use. Mr. Sanders and Mr. Longworth also said that a water rights holder could conserve water and sell the "extra" water if that user is able to demonstrate savings, but no one has been able to demonstrate savings. Mr. Longworth noted that agricultural water users have become very good at consuming water. He said that in the CRBS work groups, discussion of how to define and measure savings arose often, with no agreement yet reached on how to measure it.

Senator Cervantes discussed litigation with Texas over water. He explained that since Caballo and Elephant Butte reservoirs are virtually empty, the only way farmers in southern New

Mexico are receiving any water is through the pumping of ground water. However, Senator Cervantes said that Texas is suing New Mexico to halt that pumping, and, if it succeeds, southern New Mexico will begin looking to northern New Mexico for water. Mr. Lopez said that Texas has asked the United States Supreme Court to take the case, and representatives from both states have spoken with the court.

Mr. Lopez also noted that the 2008 operating agreement between the Elephant Butte Irrigation District and El Paso County Water Improvement District #1 was facilitated by the BOR, while the State of New Mexico did not have a role in the agreement.

There being no further business, the subcommittee adjourned at 4:50 p.m.

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

**August 29-30, 2013
San Juan College, Farmington**

The third meeting of the Water and Natural Resources Committee was called to order on August 29, 2013 at 9:10 a.m. by Senator Phil A. Griego, chair, in the Henderson Fine Arts Center at San Juan College in Farmington.

Present

Sen. Phil A. Griego, Chair
Rep. Phillip M. Archuleta
Rep. Paul C. Bandy
Sen. Joseph Cervantes
Rep. Brian F. Egolf, Jr.
Rep. Larry A. Larrañaga
Sen. Cliff R. Pirtle
Sen. Sander Rue
Rep. Mimi Stewart
Rep. James R.J. Strickler
Rep. Don L. Tripp
Sen. Peter Wirth
Sen. Pat Woods

Advisory Members

Sen. Carlos R. Cisneros
Rep. Sharon Clahchischilliage
Sen. Lee S. Cotter
Rep. Anna M. Crook
Sen. Ron Griggs
Rep. James Roger Madalena (August 30)
Sen. Cisco McSorley
Sen. Steven P. Neville
Sen. Mary Kay Papen
Rep. Tomás E. Salazar
Sen. William E. Sharer
Rep. Bob Wooley

Absent

Rep. George Dodge, Jr., Vice Chair
Rep. William "Bill" J. Gray
Rep. Dona G. Irwin
Rep. Emily Kane
Sen. George K. Munoz
Sen. Benny Shendo, Jr.

Rep. Cathrynn N. Brown
Sen. Pete Campos
Rep. Gail Chasey
Rep. Nora Espinoza
Rep. Candy Spence Ezzell
Sen. Stuart Ingle
Sen. Gay G. Kernan
Rep. Rodolpho "Rudy" S. Martinez
Rep. W. Ken Martinez
Sen. Gerald Ortiz y Pino
Sen. Nancy Rodriguez
Sen. John C. Ryan
Rep. Henry Kiki Saavedra
Sen. John Arthur Smith
Rep. Jeff Steinborn

Guest Legislators

Rep. Debbie A. Rodella (August 29)

Rep. Thomas C. Taylor (August 29)

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

Staff

Jon Boller, Legislative Council Service (LCS)

Renée Gregorio, LCS

Jeret Fleetwood, LCS

Guests

The guest list is in the original meeting file.

Handouts

Handouts and other written testimony can be found in the meeting file or on the New Mexico Legislature's web site at www.nmlegis.gov.

Thursday, August 29

Introductions and Welcome

Senator Griego began the meeting by having members of the committee introduce themselves.

Representative Strickler invited members of the committee to tour the Hogback Irrigation Project, where a volunteer cleanup effort is under way.

Toni Pendergrass, president of San Juan College, thanked the committee for meeting in Farmington and provided the committee with some background and facts about the college. She said that about 18,000 students are enrolled at San Juan College, making it the fourth-largest college in New Mexico, and that the average age of a student at the college is 36, which is higher than the nationwide average of 28. Dr. Pendergrass also noted that many of the students at the college are first-generation college students and that many of the graduates from the school tend to stay in New Mexico. She also thanked the legislature for its support on a project for a new School of Energy building.

Hydraulic Fracturing (Fracking) and Water Use

Scott Verhines, state engineer, said that he is vice chair of the governor's New Mexico Drought Task Force and that a subcommittee of the task force has been looking at recoverable water, including brackish, gray and produced water. He said that the subcommittee is collecting data at this point.

Karin Foster of the Independent Petroleum Producers Association provided the committee with an overview of the hydraulic fracturing process. She began by explaining the basics of oil and gas wells, noting that while drinking water wells are relatively shallow, oil and gas wells are much deeper, and that 40% to 50% of the mineral is typically left in a traditional well. Ms. Foster said that fracturing has been in use for about 40 years and allows drillers to enhance well production, particularly in tight rock. She went on to say that the fracturing process involves injecting water and various other substances into wells to fracture rock and shale in order to release more mineral. Ms. Foster went over the technique, explaining that acidic fluid is injected first to clean the hole, followed by water and gels containing sand. She also addressed concerns over the makeup of fracturing fluid, explaining that the fluid is 99% water and sand, and that developers are required to disclose the makeup of fracturing fluid to the Oil Conservation Division (OCD) of the Energy, Minerals and Natural Resources Department. Ms. Foster also pointed out that most developers also disclose the makeup of their fluids to an online database called "Fracfocus", acknowledging that some substances are trade secrets and are not disclosed. As to the question of whether or not the process negatively affects ground water supplies, Ms. Foster read several statements saying there has not been ground water contamination due to hydraulic fracturing in the state.

Ms. Foster also discussed the amount of water used in hydraulic fracturing, explaining that different basins use different amounts of water, ranging from 45,000 gallons per well up to one million gallons per well. She said that while that amount may seem high, it is not when compared to other water uses in New Mexico, accounting for .25% of total water use in the state. Ms. Foster also said that water must be taken to and from well sites by truck, which is expensive. She also said that developers are trying to fracture with water containing higher amounts of total dissolved solids than are found in drinking water. Ms. Foster also discussed the development of multi-well field management pits to try to reduce the amount of water used in the fracturing process.

Bruce Baizel, energy program director for Earthworks, explained that fracturing, in addition to being an energy issue, is also a social and technical issue that is not going away. He discussed some of the lack of trust the public may have about fracturing, noting that a 2007 sampling program conducted by the OCD revealed that, in addition to water and sand, some toxins, including diesel fuel, were found in pit fluids. Mr. Baizel went on to say that most of the oil that was easy to extract is gone, prompting the industry to drill more and more wells in search of additional oil. Mr. Baizel also said that many oil and gas companies do not coordinate with the OCD and Fracfocus, citing disparities in reports filed with both.

Mr. Baizel addressed water quantity issues associated with fracturing, explaining that there are few reliable estimates as to the amount of water needed to drill and fracture the permitted number of wells in New Mexico or in specific river basins. He also pointed out that while the amount of water needed per fracture operation varies by region, even the minimum represents a significant amount of water. Mr. Baizel also discussed the various sources of water

contamination that can occur at oil wells, such as transportation, casing failure, leaks and disposal. He also noted the increasing number of closed-loop systems in use.

L. Greer Price, state geologist and director of the Bureau of Geology and Mineral Resources, explained that geologists are primarily interested in subsurface issues, as opposed to water use, but that currently studies are being conducted that will include data on water use and availability in the areas being studied.

Ron Broadhead of the New Mexico Institute of Mining and Technology (NMIMT) briefed the committee on the geology of oil and gas in the Mancos shale within the San Juan Basin. He began by showing the committee the various subsurface geologic layers and their depth, as well as the location of various oil and gas reservoirs in the northwestern corner of New Mexico. Mr. Broadhead also showed the committee the depth of various oil- and gas-producing sites within the layer of Mancos shale in the San Juan Basin. He also provided the committee with a photograph of a core sample taken from a fracturing site, explaining that wells in the area do not appear to be as productive as they once were. Mr. Broadhead also said that horizontal drilling, a component of the fracturing process, multiplies the surface area reachable by a single vertical well, so that one horizontal well replaces the need for multiple vertical ones.

Shari Kelly, also of NMIMT, reported on a study NMIMT has begun in conjunction with the Farmington office of the federal Bureau of Land Management to determine the potential subsurface development of the Gallup/Mancos formation to estimate the associated surface impact of the development in terms of wells drilled and expanded infrastructure. She noted that one of the components of the study is a hydrologic assessment of the water supply for the San Juan Basin, which would summarize the existing water rights held in the basin and categorize them by use, as well as tabulate the amount of water used in drilling horizontal and vertical wells. Dr. Kelly said that, in conducting the hydrologic study — the first such study in 20 years — Office of the State Engineer (OSE) information on water rights had been gathered and that well operators and other key players in the region have been interviewed. She said that coal and uranium mines are the biggest water users in the area and that the 11 aquifers in the area are currently being mapped. Dr. Kelly went on to explain that other tasks for the study include data compilation, development of information regarding wells, contours and geologic contacts and volume calculations. She said that volume calculation estimates the volume of fluids in pore space and the amount of fluid retrievable, which varies based on mixtures of rock and their porosity. Dr. Kelly said that not all of the water in the pore space can be extracted.

Questions and comments from the committee included the following:

- the type of sand used to hold fractures open depends on the geologic formation and water;
- some ground water contamination did occur before the new pit rule was instituted, mostly from legacy pits, but not much data have been collected since the pit rule was adopted;

- the amount of water used in fracturing varies greatly, as different operators, techniques and types of formations require different amounts of waters;
- Fracfocus reporting is voluntary, and the numbers listed come from reports of operators;
- the industry is trying to develop better means of reusing water from drilling, as current technology only allows for 10% to 15% of the water to be reused in the San Juan Basin;
- power generation uses water to cool towers while surface mining uses it to control dust;
- oil and gas exploration in the region reached a peak in about 2006-2007 and seems to have tapered off since then;
- while fracturing has been going on for some time, it has changed as new types of wells and more horizontal wells are used;
- the disparity between Fracfocus and OCD records;
- a well would have to have been drilled after April 1, 2012 to be subject to reporting requirements, but since not many new wells have been drilled in the region, very little data are available;
- all of the material in fracturing fluid must be disclosed in Texas and Pennsylvania, but not in New Mexico;
- operators cannot disclose trade secrets owned by the manufacturer of fracturing fluid, as trade secrets are protected by state law;
- ground water contamination legislation in Wyoming, Colorado and Texas;
- ground water baseline testing in Colorado;
- fresh water is expensive to use for fracturing, so produced water that has been "cleaned" is beginning to be used;
- produced water is generally removed from a well site by truck, although some pipelines have been used, and taken to a class two injection well or a saturation disposal site;
- the revised pit rule allows for multi-well water management;
- the OCD has jurisdiction over produced water, not the state engineer;
- the interim Revenue Stabilization and Tax Policy Committee received a report stating that 30% of total revenues for New Mexico come from oil and gas;
- wells today have shorter life spans, and that production needs to be replaced;
- oil and gas exploration is a boom or bust business;
- the oil and gas industry is interested in saving water resources, and as technology improves, less water is necessary;
- the distance sand is injected in fracturing varies, but 1,000 feet is a good distance;
- spacing between oil wells is different from gas wells, but horizontal drilling makes it more likely that one well will communicate with, and could impact, other wells;
- rules in New Mexico were written with vertical drilling in mind;
- there are studies that show fracturing can have some impact on ground water; and
- the use of nitrogen or liquid propane instead of water in some fractures.

Technology for Pre-Treatment of Water for Reuse

Bill McMillan of Breakwater Valve Systems, LLC, described the use of the Mitton Cavitation Reactor (MCR) to process and clean produced water. He explained that cavitation is basically the generation, growth and collapse of millions of cavities in water within a reactor, producing extremely high temperatures and pressures, which cleans produced water by stratifying water and various contaminants, and cleans 99% of total dissolved solids in produced water during the first five minute pass through a reactor. Mr. McMillan said that use of MCR technology could eliminate the need for chemical treatment of water going into salt water disposal wells and various other types of water cleaning technologies. He pointed out that the price of cleaning or disposing of produced water represents a significant cost to the oil and gas industry. Mr. McMillan also noted that Breakwater has configured its reactors to operate at a reduced pounds per square inch, greatly reducing the cost of annual maintenance to the reactors.

Questions and comments from the committee included the following:

- disposal of extracted material depends on what type of contaminants are being treated, as cavitation can change the molecular structure of some carcinogens so that there is no byproduct;
- oxygen and hydrogen molecules are injected into the MCR, where they bond with some pollutants to become benign compounds, while sand and some other pollutants sink to the bottom of the reactor space;
- testing shows the MCR process can remove most pollutants, and Breakwater is working on removing others, such as arsenic;
- the MCR process treated produced water to cleaner standards than are in place in Texas;
- the cost to treat water is very inexpensive, but the reactors themselves range from \$100,000 to \$1 million, while annual maintenance runs about \$4,000;
- MCR removes total suspended solids and salts in solution; and
- reactor costs depend on the nature of contaminants and the volume of water to be treated.

School of Energy at San Juan College

Randy Pacheco, dean of the School of Energy at San Juan College, outlined the development of the School of Energy and its programs. He explained that the staff of the school could earn more in the oil and gas field, but that they have chosen to work in a field that offers its students a chance at a better life. Mr. Pacheco went on to note that energy consumption in the United States has shown moderate growth, but that there is steady increase in global demand. He went on to explain that the School of Energy focuses on producing graduates who are crucial to the oil and gas production industry, offering programs on compression technology, petroleum technology, renewable energy, instrument control technology and occupational safety. Mr. Pacheco also noted that the school has formed partnerships with the oil and gas industry, local power plants and state and local governments. He also said that the economic downturn in 2008 spurred an increase in enrollment, as the oil and gas industry remains a source of high-paying jobs. He pointed out that the school has the largest commercial driver's license program in the

state. Mr. Pacheco said that some of the challenges facing the School of Energy are the recruitment and referral of trainees and being able to respond to the needs of the oil and gas industry. He said that in the near future, the school will develop a program in low carbon emissions technology. He stressed that the programs at the school are for people in the field, such as field technicians, lease operators and compression technicians, and that very few programs are available for such jobs. Mr. Pacheco noted that the graduation rate in the School of Energy is over 90% and that graduates of the program have a 90% placement rate with energy companies.

Terms and Implementation of the Navajo Indian Water Rights Settlement

Estevan Lopez, director of the Interstate Stream Commission (ISC), began by giving a brief history of the Navajo Indian water rights settlement, explaining that negotiations began under Governor Gary Johnson's administration in the 1990s and concluded with the signed agreement in 2005 and congressional approval in 2009. He went on to say that the water rights in the settlement are mostly from existing, federally authorized projects and sharing agreements. Mr. Lopez explained that 326,000 acre-feet of depletions per year are allocated to the Navajo Nation and went on to address some of the concerns raised over the settlement. For example, Mr. Lopez noted that while critics of the settlement point out that the amount allocated to the Navajo Nation is several times the amount provided to the city of Albuquerque, they are comparing agricultural water use to municipal use, which is not a valid comparison. He also said that the settlement will actually make it more difficult for the Navajo Nation to sell and export its water rights. Mr. Lopez explained that the overall project is worth about \$1 billion and represents certainty for water users while avoiding litigation and giving the OSE some jurisdiction over the Navajo Nation's use of water. He also said that the state's cost share of the project is about \$50 million, and that while the state is within about \$5 million of meeting that obligation, gross receipts taxes on the project construction will likely recover most, if not all, of the state's total share of the project cost. Mr. Lopez went on to say that if the settlement were litigated, non-native water users would almost certainly be displaced, the cost of litigation would likely exceed the state's cost share of the project and the Navajo Nation would likely pursue a much earlier priority date than the one laid out in the settlement.

Jim Rogers of the San Juan Agricultural Water Users Association explained that the association has existed since the 1990s and learned some lessons during the Jicarilla water settlement about the value of becoming involved at the beginning of water rights negotiations. However, he said that as the association learned about the settlement and tried to offer input, it was told that it was a closed negotiation. Mr. Rogers said that the association hired ex-State Engineer Tom Turney to assess if enough water exists to be able to carry out the settlement. He said Mr. Turney's assessment was that, on paper, enough water existed, but not in practice. Mr. Rogers went on to note that since Judge Wechsler determined that no need exists for a trial, the only avenue left for non-native irrigators is to appeal the judge's decision. He said that the entire process appears to have been structured not to allow local input, to create conflict and to paint non-native irrigators as trying to deprive their neighbors of water rights, which he resents. Mr. Rogers questioned the methodology used for determining that enough water exists to make the

settlement possible. He also said that no room for compromise ever existed, and that he has lost confidence in the OSE and ISC. Mr. Rogers also said that one of the things that non-native irrigators wanted was the formation of a water bank, which had not been done.

Mr. Lopez responded by saying that the Navajo Nation did not want individual irrigators participating in the negotiations, but that the settlement had been changed to address some of the concerns expressed by groups such as the one that Mr. Rogers represents. He also said that a water bank has been created in the legislation, but has not been utilized yet. Mr. Lopez emphasized that concessions were made for all water users in the settlement.

Questions and comments from the committee included the following:

- the best information available, which is a 2007 Bureau of Reclamation (BOR) survey, suggests that enough water exists to be able to carry out the settlement;
- all seven Colorado River Basin states originally challenged the BOR survey, but the increased scrutiny of the challenges has shown it to be solid;
- while a 600,000 acre-feet diversion of water is a huge amount, the Navajo Irrigation Project (NIP) could divert over 500,000 acre-feet alone under existing law;
- there will likely come a time when the large cities that rely on Colorado River water, such as Phoenix and Los Angeles, will look to the Navajo Nation for water, and while it is possible for the OSE to deny water transfers, the matter will likely end up in court;
- the issue of the razorback sucker fish and the federal Endangered Species Act of 1973 is misleading because New Mexico already delivers more than 700,000 acre-feet of water per year downstream;
- the Navajo Nation negotiated to provide some Colorado River Basin water to Albuquerque in exchange for the NIP, but since the NIP was never completed, the Navajo Nation's position that everyone should have water is coming across as contrary;
- Judge Wechsler ruled there was no need for a trial because the protestants did not present any new evidence on the issues before the court;
- non-native irrigators had every chance to depose and request discovery in the case before Judge Wechsler, but did not do so;
- the Navajo settlement will not become statute, but court decrees are binding law;
- non-native irrigators are unsure if they have rights to some of the storage called for in the settlement; and
- many of the issues raised by opposition to the settlement have been resolved, and most protestants, including the cities of Bloomfield and Aztec and the San Juan Water Commission, dropped their opposition to the settlement.

The committee recessed at 3:30 p.m and went on a tour of a natural gas compression facility.

Friday, August 30

Senator Griego reconvened the meeting to order at 9:15 a.m. The committee approved without objection the minutes for the July meetings of the Drought Subcommittee and the full committee.

Efficient Utilization of Water/Wastewater Infrastructure Funding

Matt Holmes of the New Mexico Rural Water Association (NMRWA) began by providing the committee with a brief overview of the NMRWA, explaining that it lobbies for federal funding in Washington, D.C., and provides on-site technical assistance for rural water systems and operator and manager training. He went on to note that federal and state funding for technical assistance for rural water projects have been steadily declining for the past few years. However, Mr. Holmes also pointed out that the funding needs for drinking water systems are large, totaling more than \$1 trillion nationwide over the next 25 years to maintain existing levels of service. He also said that, particularly in New Mexico, drinking water systems are deteriorating at an ever-increasing rate. Mr. Holmes explained that there is increasing concern over the availability and use of federal funds, noting that the Environmental Protection Agency has recommended disallowing and recovering \$3 million from the state of expended set-aside drinking water funds, which he characterized as a "shot over the bow". He related a story about a water tank that was funded, installed and never used because of compatibility issues as an example of why federal agencies are scrutinizing the use of federal funds for drinking water projects. Mr. Holmes said that a report called for by House Joint Memorial (HJM) 86, passed during the 2005 session, outlined criteria for water system planning, performance and conservation as a condition for state funding. He said the report suggested setting state standards with clear guidelines, providing technical assistance and training and enforcing regulatory compliance as ways of making sure that federal funds are taken advantage of and used properly. He also said that better planning and design, competent project inspection, prioritized grant funding for true emergencies, education on the upcoming costs of water project financing and simplified funding applications are also missing pieces to the puzzle.

Questions and comments from the committee included:

- the time line and issues associated with the village of Magdalena running out of water earlier in the summer;
- two of the three wells that Magdalena relies on for water were inactive and the third collapsed;
- Magdalena was not especially proactive in managing its situation and waited for the state to intervene;
- water trucks were offered on the day that the third well collapsed, but Magdalena chose to work through the New Mexico Department of Environment (NMED), dragging the issue on for 12 more days;
- Magdalena officials walked away several times from discussions with the OSE regarding reducing or putting its declared rights to beneficial use;
- the difference between technical assistance offered by the NMRWA and legal advice;

- changes made to Water Trust Board (WTB) policies in light of the HJM 86 report have made the process simpler, but misinformation about those changes continues to circulate;
- the single biggest risk to water system investment is deferred maintenance;
- members of the legislature need to have a better understanding of WTB rules to better explain them to their constituents;
- El Valle Water Alliance is a good example of a regionalized water project with managed assets;
- New Mexico could be wasting money by providing capital outlay money to groups without technical assistance or maintenance plans;
- the need to balance funding for small groups that may need water system financing the most against requirements for funding those systems;
- other states have eliminated grant funding in favor of processes that address funding and maintenance;
- enforcement of funding requirements may be more consistent in other states;
- standardized systems that may work in other states may not work in New Mexico;
- some federal money does go through state agencies such as the New Mexico Finance Authority and the United States Department of Agriculture (USDA);
- difficulty in obtaining federal funding has made it unattractive to many smaller water systems;
- the WTB has many requirements for funding, but the USDA has those same requirements, plus many more;
- Ruidoso is under an enforcement order from the NMED for surface water mismanagement;
- many communities chase "free" money to the detriment of their residents, as evidenced by the situation in Magdalena;
- overlap in technical assistance between the NMED and NMRWA;
- Albuquerque and Santa Fe are included in the NMRWA, but some other relatively large cities in New Mexico are not;
- a wide range exists in the amount that water users pay for water, but it is no longer free for anyone;
- the NMED has had more of its budget cut than any other agency;
- the NMED has released a list of other water systems that are in critical condition;
- many small communities cannot stay in compliance with requirements of the Audit Act that are necessary for them to receive capital outlay funds;
- the cost of compliance with WTB rules; and
- a situation in Willard, New Mexico, is an example of the need to deal with wastewater that is now threatening drinking water.

Roca Honda Uranium Mine and Water Use

Senator Griego explained that the Roca Honda uranium mine had recently been sold, and that because the new owners could not be present for the meeting, the committee would hear from the presenters, but would have a more in-depth discussion of the issue at a future meeting.

Governor Gregg P. Shativa of the Pueblo of Acoma explained that the Pueblo of Acoma is not opposed to mining or development of traditional cultural property such as Mount Taylor, recognizing that some developments can have long-term benefits. However, he said that the proposed Roca Honda uranium mine is not one of those developments, noting that information about the proposed mine suggests that the short-term benefits are outweighed by long-term environmental and economic losses that will flow from the project. Governor Shativa said that the greatest cost of the project would come from the use of and potential damage to water resources in the area. He noted that there are already limited water resources available in the area and that the proposed mine would compete for them and cause permanent damage to some of those resources. Governor Shativa also said that contamination from legacy uranium sites upstream on the Rio San Jose has caused health problems for people in his community. He also emphasized the strong spiritual connection the people of Acoma have to land and water, including Mount Taylor. He asked the committee to call for a study of the full impact of uranium mining near Mount Taylor.

Kenneth Tiller, second lieutenant governor for the Pueblo of Laguna, provided the committee with a letter on behalf of Pueblo of Laguna Governor Richard B. Luarkie asking the committee to convene a task force composed of tribal representatives, the NMED and mining companies to address issues related to the proposed mine and associated water use.

Bruce Thomson, director of the water resources program at the University of New Mexico, gave a brief history of uranium mining in New Mexico, noting that historically, New Mexico produced approximately 50% of the United States' domestic production of uranium, and that the state accounts for approximately 38% of the nation's supply. The legacy of uranium mining in New Mexico is troubled, he pointed out, with widespread contamination of soil and water causing major health problems, especially on the lands of the Navajo Nation. In 1979, New Mexico had 38 mines, six mills and nearly 7,000 employees in the uranium mining industry. He strongly recommended that the 1980 San Juan Basin Regional Uranium Study be updated, stressing the need to understand the impacts of uranium mining on the environment, economy and sociocultural values of the state and to research health issues, water quantity and quality impacts and soil and air quality impacts of such mining. He closed by saying that new knowledge and technology can support responsible mining and suggested that an updated study needs to be conducted before New Mexico allows any more large-scale uranium development.

Questions and comments from the committee included the following:

- legacy uranium mines caused huge problems that are difficult for many residents of northwestern New Mexico to forget;
- any studies should include more about water resources than mining;
- many New Mexicans have benefited from uranium mining, but the health effects are also a big problem;
- in situ leaching is now the preferred method of uranium mining, which drills holes and circulates water through formations, presenting fewer health risks to miners;

- in situ mining has been used in southern Texas, but would be more expensive in New Mexico;
- Roca Honda is a new mine, not an existing one;
- there appears to be a limited market for uranium, which raises questions about the point of mining more of it; and
- previous cases showed the impact that a single mine can have on ground water.

There being no further business, the committee adjourned at 12:00 noon.

**MINUTES
of the
FOURTH MEETING
of the
DROUGHT SUBCOMMITTEE**

**October 14, 2013
NMSU Golf Course Banquet Room
Las Cruces**

The fourth meeting of the Drought Subcommittee of the Water and Natural Resources Committee was called to order at 12:15 p.m. by Senator Joseph Cervantes, chair, in the Banquet Room of the NMSU Golf Course in Las Cruces.

Present

Sen. Joseph Cervantes, Chair
Rep. Brian F. Egolf, Jr., Vice Chair
Rep. Rodolpho "Rudy" S. Martinez
Sen. John Arthur Smith
Sen. Peter Wirth

Absent

Rep. Phillip M. Archuleta
Sen. Steven P. Neville
Rep. Tomás E. Salazar
Sen. Pat Woods

Advisory Members

Rep. Cathrynn N. Brown
Sen. Carlos R. Cisneros
Rep. Larry A. Larrañaga
Sen. Mary Kay Papen
Rep. Don L. Tripp
Rep. Bob Wooley

Sen. Stuart Ingle

Guest Legislators

Sen. Lee S. Cotter
Sen. Phil A. Griego
Sen. Benny Shendo, Jr.
Rep. Jeff Steinborn
Rep. Mimi Stewart

Staff

Jon Boller, Legislative Council Service (LCS)
Gordon Meeks, LCS
Jennifer Dana, LCS

Guests

The guest list is in the original meeting file.

Handouts

Handouts and other written testimony can be found in the meeting file or on the LCS web site at www.nmlegis.gov.

Monday, October 14

Introductions and Welcome

Dan Howard, provost, New Mexico State University (NMSU), welcomed the subcommittee to NMSU and gave a brief overview of the university's research projects regarding water and the work of the Water Resources Research Institute (WRRI), which has 80 faculty members working on water issues in one form or another. Dr. Howard also invited the committee to a reception at the WRRI following the meeting.

Gila River and Arizona Water Settlements Act (AWSA)

Craig Roepke, Interstate Stream Commission (ISC), briefly summarized the history of the AWSA, noting that the act was passed by Congress in 2004 to settle water rights claims in Arizona and the Gila River Basin and that it provides for the potential development of a project to use up to 14,000 acre-feet of water in the state, a 50% increase of what New Mexico has a right to use today. Mr. Roepke outlined the ISC's work plan, budget and time line for fiscal year 2014 and explained that the ISC is evaluating and assessing 15 proposed projects, three of which are diversion and storage projects. Preliminary results of most of the evaluations and studies should be available by January 2014, he added. The ISC, he said, must notify the secretary of the interior by December 31, 2014 of its intention to construct a New Mexico unit project to divert up to 14,000 acre-feet of water per year, in which case the state could receive an additional \$62 million to construct the project.

Mr. Roepke also described the conditions that must be met before New Mexico can divert any of the AWSA water and the tension that exists between diverting water for irrigation and leaving water in the river during low-flow conditions. He suggested that diverting and storing flood flows could help alleviate this tension by making water available to both in times of shortages.

John Cornell, president of the Dona Ana County Associated Sportsmen and spokesman for the New Mexico Wildlife Federation (NMWF), conveyed the NMWF's opposition to a partially funded federal diversion and inter-basin water transfer pipeline on the Gila River. He said the NMWF does, however, support the expenditure of the tens of millions of dollars of federal funds available for locally identified water supply projects designed to meet the four southwestern counties' water needs. Mr. Cornell stressed the importance of sportsmen to the state's economy, noting that they contributed \$579 million to New Mexico's economy in 2011, which was more than the combined receipts of \$539 million for pecans, hay, cotton and chile. He said that the proposals to build large diversion and storage projects on the Gila River will cost far more than the nondiversionary alternatives, which he said could produce or save 22,000 acre-feet of water annually while still maintaining the Gila River's ecological and recreational values.

Luis Varela, Paola Rivera, Marco Chavez and Bianca Fernandez, members of the A.T.O.M.I.C. Youth Group of Santa Rosa de Lima Catholic Church in Las Cruces, presented a video of the group's recent visit to the Gila National Forest and hike along the West Fork of the Gila River. Each then spoke briefly about the experience and urged the subcommittee to preserve the Gila River as it is and protect its natural beauty and free-flowing nature.

Richard McInturff, administrator for the City of Deming, briefly described the history of the AWSA and how it provides an opportunity for New Mexico to develop one or more projects to use up to 14,000 acre-feet of water in the Gila Basin. Deming was part of the stakeholders' group that was formed to implement the process that led to proposals for the utilization of that water and for the use of up to \$90 million for projects to meet water supply demands in the four-county region, he explained. Three proposals that are eligible for an additional \$62 million are now under consideration by the ISC, one of which is the city's Southwest New Mexico Regional Water Supply Project proposal, he said. That proposal, he stressed, does not entail the construction of a dam but rather would use a caisson-type diversion that would divert water during flood-stage conditions to a side canyon reservoir. He said that the cost of construction for the project is estimated to be approximately \$190 million, with operating and maintenance costs of \$2.88 per 1,000 gallons. He cautioned that these are preliminary figures, given that full design and engineering plans are not yet done, and the National Environmental Policy Act (NEPA) process could take years to complete. Mr. McInturff also noted that the project is supported by at least 15 county, municipal and other local governing bodies in the southwest region.

Alex Thall, Gila/San Francisco Water Commission, said that according to a NMSU study, people have been diverting, irrigating and storing water along the Gila River since pre-Hispanic times, and he added that the Gila Basin is one of the most protected basins in the United States. He noted that the current allocation of water to New Mexico was based on use in the 1950s, when drought and wars resulted in a much reduced acreage from that which existed before those events. The AWSA, he explained, tries to address that problem by allowing the region to recapture at least some of the water lost during court battles in the 1960s. He said that no proposal being considered will dam the Gila River, but rather will divert and store water much like the existing diversion for Bill Evans Lake or Quemado Lake. Mr. Thall emphasized the need to wait for the NEPA process to run its course so that there will be a thorough assessment of the proposed project, with full public involvement.

Lori Weigel, Public Opinion Strategies, presented via webcast the results of a statewide survey of 500 voters on their opinions concerning water policy. Ms. Weigel said the results showed that New Mexicans put a high value on the state's rivers; that they reject both the concept and specifics of a river diversion project; that the more details that voters hear about a potential Gila River project, the less they like the idea; and that less than one-third of the voters support increased taxes to support the construction of a pipeline to divert water from the Gila River. Ms. Weigel noted that even in southwestern New Mexico, voters are divided in their initial opinions of the proposed Gila River diversion project.

Plains of San Agustin Ground Water Appropriation

Michel Jichlinski, project director, Augustin Plains Ranch (APR) Water Project, outlined a proposal to develop a well field in the Plains of San Agustin capable of producing up to 54,000 acre-feet of water per year for delivery by pipeline to the Rio Rancho-Albuquerque metropolitan region. Mr. Jichlinski said that the aquifer underlying the basin is estimated to hold 50 million acre-feet of water and that the project will withdraw only 0.1% of that amount per year. In addition, he said, the project proposes to increase recharge of the aquifer by 54,000 acre-feet per year to ensure sustainability and nonimpairment. Mr. Jichlinski also noted that the \$600 million project will be privately financed and will not require any financial outlay from the state.

Eileen Dodds, secretary of the San Agustin Water Coalition, reported that the APR's application to appropriate the 54,000 acre-feet was rejected by the state engineer, a decision that was confirmed by the district court and that is now being appealed by the APR. Ms. Dodds expressed concern about the amount of water available in the basin, noting that even with rainfall of eight to 14 inches late this summer, the soil is still dry at a depth of three or four inches, whereas before the drought in the spring of 2007, soil moisture was found as deep as five feet. She questioned whether it was wise to allow a withdrawal of over half of the estimated 100,000 acre-feet of annual recharge coming from the plain's 1,275,000 acres from an area overlying only 1.4% of that acreage. Since the 37 wells are concentrated on 18,220 acres, she explained, that area will be depleted at a much higher rate. Ms. Dodds also questioned whether the proposed plans for infiltration basins adequately took into account the complex geology underlying the basin, and cautioned that finite resources should not be tapped without first conducting a full hydrologic study.

Agricultural Water Conservation Hydrology

Phil King, Department of Civil Engineering, NMSU, outlined several definitions of water conservation and stressed that one size does not fit all when it comes to implementing conservation measures. A given conservation measure may result in less diversions from a river but still not result in less depletions to the system, while another may reduce diversions but actually increase depletions to the system. An example of the latter can happen with the conversion from traditional to high-efficiency irrigation, he explained. Less water needs to be applied to a crop with drip irrigation than with traditional flood irrigation, and yields per acre increase; but more water is actually used by the crop and thus "lost" to the system due to much reduced return flows, Dr. King explained. As such, he said, conservation measures need to fit in with the local hydrology and with the institutional setting. When evaluating what conservation measures to encourage, Dr. King said to consider effects on return flow and water quality, quantify potential impairment of other water rights and look at surface water/ground water interactions.

Sam Fernald, WRRI, picking up where Dr. King left off, compared the effect of agricultural water conservation measures in different hydrologic regions of New Mexico. Dr. Fernald compared the effect of agricultural conservation methods in regions of relict ground water, such as the Ogallala aquifer, with those in regions where surface water is connected to

ground water, such as the Rio Grande aquifer system. In the former, he noted, targeted water delivery methods and high irrigation efficiency can maximize crop yields without necessarily impairing existing water rights because the aquifer system is not dependent on recharge from crop irrigation in the region. In contrast, he explained, where surface water is connected to ground water aquifers as it is along much of the Rio Grande, increasing irrigation efficiency may result in increased crop yields and reduced diversions, but also less water being returned to the system, i.e., increased depletions, which may impair the water rights of other water users in the basin. Therefore, he cautioned, authorities need to guard against instituting one size fits all policies with regard to agricultural conservation. Dr. Fernald also encouraged the development of a statewide hydrologic water budget to integrate regional conservation solutions.

Gary Esslinger, Elephant Butte Irrigation District (EBID), outlined how the district has coped with the drought, noting that the lower Rio Grande has broken all the wrong records this year, including the latest first release from project storage — June 1; the earliest shutdown of release — July 17; the smallest volume of release — 168,607 acre-feet; and the smallest allotment to EBID farmers — 3.5 inches. The EBID has implemented several measures to help cope with the effects of drought, he explained, including the diversion, delivery, retention and infiltration of storm water; re-plumbing the irrigation system to save more than 12,000 acre-feet of water per year; and providing water for environmental uses to minimize the drought's impact on endangered species. Mr. Esslinger also pointed out that a huge problem facing residents in the lower Rio Grande region is the existence of over 100 aging, underdesigned PL-566 flood control dams. The dams have given residents a false sense of security, he said, and there are inadequate laws regulating development below such dams. With greater severity and frequency of storm events in the Mesilla Valley, more attention needs to be given to this problem, he said.

Steve Wilmeth, South Central New Mexico Stormwater Management Coalition, stressed the need for better strategies and community planning for future development and growth. Part of that strategy needs to emphasize flood management at the valley's edge, he explained, and increase efforts at upslope watershed management. Slowing and spreading flood flows can maximize benefits from rain events, he said, while also helping temper the effects of climate change.

Dino Cervantes, general manager of Cervantes Agribusiness, explained that Cervantes Agribusiness operates on about 1,200 acres in New Mexico and also has operations in Mexico. The business raises chile, cotton, corn, pecans and market vegetables, he said. Most of the business's land in New Mexico is part of the EBID, which in the 1980s and 1990s delivered a full allocation of three to four acre-feet of water to its members, compared to 3.5 inches this year. Consequently, more than 20% of Cervantes Agribusiness's land is fallow even though commodity prices are at record levels, he explained, and the farm spent \$10 million last year on electricity to pump water to make up for the lack of surface water, most of which flowed to Texas. He also said that his farm was one of the first to install drip irrigation in the valley 20 years ago but that he quit using it because he was afraid of losing water rights. Some of the methods that the farm is using to save water are laser-leveling of fields, using a GPS system to

take out weeds, replacing the soil in pecan orchards and using systems that turn on pumps to water plants only when the plants need it.

Scott Verhines, state engineer, talked about hazard creep, describing the problems presented by development occurring below flood control dams and the lack of maintenance of many of those dams. He said this is a problem that needs to be addressed by working with the owners of those dams collectively.

The subcommittee approved the minutes from the last meeting without objection.

There be no further business, the subcommittee adjourned at 5:00 p.m.

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

**October 15-16, 2013
New Mexico State University (NMSU) Golf Course Banquet Room
Las Cruces**

The fourth meeting of the Water and Natural Resources Committee was called to order at 9:05 a.m. on October 15, 2013 by Senator Phil A. Griego, chair, in the Banquet Room at the NMSU Golf Course in Las Cruces.

Present

Sen. Phil A. Griego, Chair
Sen. Joseph Cervantes (October 15)
Rep. Brian F. Egolf, Jr.
Rep. Larry A. Larrañaga
Sen. Sander Rue
Sen. Benny Shendo, Jr.
Rep. Mimi Stewart (October 15)
Rep. Don L. Tripp
Sen. Peter Wirth

Absent

Rep. George Dodge, Jr., Vice Chair
Rep. Phillip M. Archuleta
Rep. Paul C. Bandy
Rep. William "Bill" J. Gray
Rep. Dona G. Irwin
Rep. Emily Kane
Sen. George K. Munoz
Sen. Cliff R. Pirtle
Rep. James R.J. Strickler
Sen. Pat Woods

Advisory Members

Rep. Cathrynn N. Brown
Sen. Carlos R. Cisneros
Rep. Sharon Clahchischilliage
Sen. Lee S. Cotter
Rep. Anna M. Crook
Rep. Candy Spence Ezzell (October 15)
Sen. Ron Griggs
Rep. Rodolpho "Rudy" S. Martinez
Sen. Cisco McSorley
Sen. Mary Kay Papen
Sen. Nancy Rodriguez
Sen. William E. Sharer
Rep. Jeff Steinborn (October 15)
Rep. Bob Wooley

Sen. Pete Campos
Rep. Gail Chasey
Rep. Nora Espinoza
Sen. Stuart Ingle
Sen. Gay G. Kernan
Rep. James Roger Madalena
Rep. W. Ken Martinez
Sen. Steven P. Neville
Sen. Gerald Ortiz y Pino
Sen. John C. Ryan
Rep. Henry Kiki Saavedra
Rep. Tomás E. Salazar
Sen. John Arthur Smith

Guest Legislators

Rep. Sandra D. Jeff (October 16)
Sen. Linda M. Lopez (October 15)

Staff

Jon Boller, Legislative Council Service (LCS)
Gordon Meeks, LCS
Jennifer Dana, LCS

Guests

The guest list is in the original meeting file.

Handouts

Handouts and other written testimony can be found in the meeting file or on the New Mexico Legislature's web site at www.nmlegis.gov.

Tuesday, October 15**Call to Order, Introductions and Welcome**

Senator Griego began the meeting by having members of the committee introduce themselves. Gregory Fant, deputy provost, NMSU, welcomed the committee on behalf of NMSU President Garrey Carruthers and the faculty, staff and students of NMSU.

How the Rio Grande Compact Functions

Phil King, Department of Engineering, NMSU, and consultant for the Elephant Butte Irrigation District (EBID), gave a brief history of water management in southern New Mexico and explained that disagreements between Mexico and the United States in the late 1800s led to a treaty with Mexico in 1906 requiring the delivery of at least 60,000 acre-feet of water annually to Mexico. Between 1905 and 1916, Elephant Butte Dam, as part of the Rio Grande Project, was constructed, he explained, and the project apportioned water from the reservoir to irrigation districts in New Mexico (the EBID) and Texas (El Paso County Water Improvement District No. 1 (EPD#1)), along with Mexico's water. He said that the Rio Grande Compact was not ratified until 1939, and it apportions Rio Grande waters to Colorado, New Mexico and Texas. The delivery point for Texas' water, as well as Rio Grande Project water, is Elephant Butte Reservoir. Dr. King said that drought was not adequately factored into the compact negotiations, so New Mexico suffers disproportionately in dry years. Projections are that the climate in the Southwest will get drier and hotter in the coming years, with declining average precipitation and increasing variability, he explained.

Rolf Schmidt-Petersen, Interstate Stream Commission (ISC), noted that New Mexico has eight compacts dealing with the interstate allocation of water and that each one is unique in how water is allocated, measured and administered, making direct comparisons of the compacts very difficult. There are 200,000 acres of irrigated land between the northern and southern borders of New Mexico on the Rio Grande, he said, and snowpack is responsible for about 80 percent of the flows of the Rio Grande in the area covered by the Rio Grande Compact. Flows vary greatly, and under the compact, a certain percentage of the natural flows passing Otowi Gauge may be used in the middle Rio Grande region, with the rest going to Elephant Butte Reservoir, the delivery point

for Texas' (and the EBID's) portion of compact water, he explained. New Mexico can accrue credit water when it delivers more water to the reservoir than is required under the compact, he said, and this credit water can be used to fulfill compact obligations in times of shortage. The state spends about \$2 million per year to keep an 18-mile channel open to make sure water makes it down to Elephant Butte Reservoir, he noted.

Issues in Litigation — *State of New Mexico v. U.S., et al.*, and *State of Texas v. State of New Mexico and State of Colorado*

Steve Hernandez, attorney for the EBID, gave a brief history of the Rio Grande Project and explained that in 2008, the EBID, EPD#1 and the U.S. Bureau of Reclamation entered into an operating agreement that describes how the bureau will handle the allocation of project water accounting for both districts. He said that 2008 operating agreement removed the threat of a lawsuit by Texas over the effects of ground water pumping in the lower Rio Grande region and ensured that EPD#1 gets the water it has ordered from reservoirs in New Mexico. In *New Mexico v. United States, et al.*, he explained, New Mexico claims that the Bureau of Reclamation has changed the allocation of project water to favor Texas and erred in its accounting of Rio Grande Compact water. That case, he noted, has been stayed pending a ruling by the U.S. Supreme Court in *Texas v. New Mexico and Colorado*, in which Texas claims that Texas is not receiving its share of compact water that is allocated by the Rio Grande Project. If Texas prevails in this action, he said, New Mexico could be liable for both monetary damages and penalty water delivery requirements to Texas, and ground water pumping in the EBID could be curtailed.

Sarah Bond, Office of the Attorney General, outlined the state's case against the Bureau of Reclamation in *New Mexico v. United States, et al.*, noting that the 2008 operating agreement violates several federal laws, including the National Environmental Policy Act of 1969 (NEPA), the federal Water Supply Act of 1958 and the federal Administrative Procedure Act. The harms New Mexico endures in the lower Rio Grande, she said, include lost aquifer recharge, lost surface water allocation and storage, lost sustainable water supply for Las Cruces and other communities and lost renewable supply of water for farmers. In *Texas v. New Mexico and Colorado*, Ms. Bond explained, Texas alleges that New Mexico is unlawfully diverting water between Elephant Butte Reservoir and the New Mexico-Texas state line, thereby interfering with Texas' allocation of water under the Rio Grande Compact. New Mexico, she said, asserts that Texas' claims are not compact-based claims, but rather arise from an operational dispute about the Rio Grande Project, a dispute that is already being heard in federal district court and in the adjudication court in New Mexico.

Jay Stein, attorney for the City of Las Cruces, explained the city's position in the two cases, pointing out that the city's water supply is completely dependent on ground water, which accounts for only six percent of the ground water pumping in the lower Rio Grande. Las Cruces, he said, had planned to obtain surface water rights to supplement its water supply, as Albuquerque, Santa Fe, Gallup and other cities have done, in order to ensure a sustainable water supply. This never happened, he said, because the 2008 operating agreement has taken all the

surface water that would have been available to implement the planned conversion to municipal and industrial use. The Bureau of Reclamation never conducted a full NEPA review of the operating agreement before it signed and implemented the agreement, he explained, and consequently never considered the agreement's effects on Las Cruces or its population. Consequently, he said, the city is challenging the bureau's authority to implement the agreement. In the U.S. Supreme Court case, Mr. Stein explained, the city filed an amicus brief that asserts that the federal district court and the state adjudication court are already hearing all the issues necessary to resolve Texas' claims to water. He also noted that both he and Ms. Bond agree that there can be no damages awarded to Texas under the compact because there have been no underdeliveries of compact water.

Update on Statewide Precipitation and Reservoir Levels

Dave DuBois, New Mexico state climatologist, reported that the July through September "monsoon season" precipitation for the majority of locations in the state was greater than normal, and in three places, it was over twice normal levels. Despite the above-normal precipitation during the monsoon, he cautioned, much of the state is still below normal for the year in total precipitation. The total area of the state suffering from exceptional, extreme or severe drought has dropped from 98 percent three months ago to 37 percent as of October 8, he said, with less than four percent now enduring extreme drought conditions and none of the state in exceptional drought. The outlook for the winter, based on comparisons with other wet monsoon years, is that, overall, there is not a strong tendency for a wet winter, but, he said, at least it does not show to be drier than the long-term average.

Scott Verhines, state engineer, updated the committee on reservoir levels around the state, noting that those on the Pecos River improved the most following the rains in September.

Working with Water Users to Address Water Shortages

Mr. Schmidt-Petersen explained that, among all the crises and bad news that the drought has generated, there are also some examples of where the state and stakeholders have collaborated to address water shortages in a manner that meets both local needs and state law. The first example is how the Rio Chama Acequia Association (RCAA), Acequia Nortenas (AN), the Office of the State Engineer (OSE) and the ISC worked together to mitigate the effects of drought on users along the Rio Chama and ensure deliveries to downstream senior users. The second example involved balancing water use in the middle Rio Grande to meet the needs of farmers and cities while still protecting endangered species. This involved cooperation with the Middle Rio Grande Conservancy District (MRGCD), federal agencies, the ISC and OSE and others, he explained.

Fred Vigil, RCAA, explained that members of the RCAA hold water rights dating back to the 1600s, while many upstream users, such as AN members, have rights junior to RCAA members. Rather than cut off all upstream users, the RCAA and AN held public meetings, along with OSE and ISC staff, to find ways to share what water was available and to reduce diversions to keep water in the river for downstream users. The RCAA, he said, also worked with the OSE

and ISC staff, the Jicarilla Apache Nation and the MRGCD to purchase San Juan-Chama Project water to offset consumption of water. He stressed the need to continue to work together to have plans in place to deal with shortages long before the issue arises.

David Gensler, MRGCD, described how the MRGCD functions, noting that when it was created, it inherited the irrigation operations of about 80 local ditches and six pueblos, and that now it covers an area of about 250,000 acres, with delivery of water to about 60,000 acres. El Vado Reservoir, he explained, serves as storage for the project, noting that it can only store about 10 percent of what Elephant Butte Reservoir can store and that the last time El Vado was full was in 2010. Currently, he said, El Vado is nearly empty, with the 25,000 acre-feet that is stored there going to fulfill Rio Grande Compact obligations. Between 1996 and 2000, he said, the MRGCD reduced its diversion by 40 percent, which helped it get through the drought and meet the needs of the endangered silvery minnow. However, by 2013, conditions had worsened, he explained, and it was not possible to meet the goals established in the early 2000s. By meeting and working together, stakeholders, the MRGCD and state and federal government agencies developed a plan to provide for a surge of water for minnow propagation without using a drop of water from irrigators and avoid litigation by doing so. Both Mr. Gensler and Mr. Vigil stressed the importance of working together to find alternatives to cutting off users in times of shortage and of planning in advance.

Review of State and Regional Water Plans, the Water Trust Fund and Funding Through the Water Project Fund by the Water Trust Board

Mr. Verhines outlined the process by which water infrastructure projects are funded and explained how the current process is often very difficult for applicants and is often inefficient when it comes to putting available funds to work immediately. He proposed streamlining the process to make certain that those projects that are approved for funding in any particular year can actually be started as soon as the money becomes available. He explained that this would help avoid situations where money is committed to a project that is not yet ready to begin, sometimes for years, while other projects that could be started or completed cannot be started or completed because funds are already tied up. Mr. Verhines also stressed the importance of planning and maintenance of water systems.

Estevan Lopez, director, ISC, gave a brief history of water planning in the state, noting that, in part, the regional water plans were established in reaction to a lawsuit by Texas in the 1980s over the export of water out of state. The legislature appropriated \$400,000 in 2013 to begin the process of updating the 16 regional plans and the state water plan, he said, and the ISC wants to complete that process by 2015. Mr. Lopez explained that the ISC will first develop a common technical platform for the plans by providing supply and demand information and background on legal issues for each region in consultation with each region. Second, stakeholder steering committees from each region will prioritize projects and develop their respective plans and provide a link between the regional plans and the state plan.

Steve Moise, state investment officer, updated the committee on the status of the Water Trust Fund. He explained that if the current distribution formula is not changed, or if more money is not deposited in the fund, given average investment returns there is better than a 50 percent chance that the fund will shrink to zero dollars in 20 years. Assuming better-than-average returns, the fund could survive 30 years, but it is still likely not self-sustaining, he said. Possible fixes could include either additional legislative appropriations to the fund or a reduction in the annual distribution amount, he suggested.

Eileen Dodds, secretary and treasurer of the New Mexico Water Dialogue (NMWD), expressed concerns that the NMWD has regarding the regional water planning process. In particular, Ms. Dodds pointed out, the ISC did not include the many people involved in the development of the original Regional Water Planning Handbook when it decided to update the regional water plan template. The NMWD believes it is important for regional representatives to have input into this process, she said, noting that community participation in the planning process is essential to common understanding, which promotes "buy in" by the community. Ms. Dodds closed by saying that she was encouraged by Mr. Lopez's comments indicating that the ISC will now be including public participation in the template update process.

Hispanic Farmers and Ranchers of America (HFRA) Presentation

Oscar Vasquez Butler, member, HFRA, said that the historical water rights of Hispanic and non-Hispanic people in southern New Mexico are not being recognized by the OSE, even though such rights have been recognized in northern New Mexico. Mr. Vasquez Butler explained that acequias in the Mesilla Valley, such as the Acequia Madre, were irrigating in 1842, which predates state engineer jurisdiction and the development of the Rio Grande Project. Scott Boyd also spoke on the issue, saying that the current adjudication of the lower Rio Grande is not properly recognizing that local community ditches had already appropriated the waters of the Rio Grande prior to 1896, long before federal claims to the water arose.

The committee recessed at 5:00 p.m.

Wednesday, October 16

Senator Griego reconvened the meeting at 9:10 a.m.

Humate Mining and Water Conservation

Michael Farmar, president of Horizon Ag-Products, explained how humate is used to amend soil and that it can help reduce water use by 10 percent by increasing water infiltration and reducing water runoff from fields. He said that it should not be considered a mineral and that current mining laws make it difficult to become a reliable supplier of humate on the world market. He asked the committee to support legislation exempting humate from the New Mexico Mining Act.

Process for Removal of Cattle from Forest Lands in Drought

Caren Cowan, New Mexico Cattle Growers' Association, described how the U.S. Forest Service in the Mountainair Ranger District (MRD) required the removal of all cattle from the grazing allotments in that district last summer and that under new regulations, there was no appeal allowed for that decision. Permit owners have not been allowed to restock their allotments since then, she explained, even though range conditions have improved. Sam Smallidge, Range Improvement Task Force (RITF), submitted a letter to the committee that outlined the sequence of events and indicated that the RITF and the New Mexico Department of Agriculture are collecting data on the allotments and meeting with permit owners to discuss their desire to assess range conditions and engage the MRD on restocking their allotments. Representatives for the U.S. Forest Service were unable to attend the meeting due to a shutdown of the federal government. The committee requested that a letter be drafted for approval at its next meeting.

Treatment of Water for Uranium Contamination

Jaime Geronimo Vela, doctoral student, NMSU, and Dr. Antonio Lara, professor of chemistry, NMSU, presented the results of their research on the use of clay pellets to remove uranium and other contaminants from drinking water. They explained that there are 54,000 people living on the Navajo Nation that do not have access to potable public water, and the federal Environmental Protection Agency is spending \$2 million a year trucking water to Navajo residents whose water is contaminated with uranium. Their solution, they explained, would allow treatment of water at the household level at much less cost. Dr. Lara added that the use of the clay pellets they have developed will treat any water resources. Dr. Robert Marquez demonstrated how the system works and how the pellets are made, noting that the World Health Organization has approved it as a method for also removing pathogens from water.

Hydraulic Fracturing and Produced Water Reuse

David Martin, secretary-designate, Energy, Minerals and Natural Resources Department, presented current and historical data on oil and natural gas drilling and production in the state, state revenue attributable to oil and gas production, background on hydraulic fracturing and horizontal drilling and data on produced water volumes from oil and gas wells. Mr. Martin said that he is the chair of the administration's recoverable water initiative, which is exploring ways to reduce reliance on and depletion of fresh water aquifers and surface water sources and to develop a regulatory environment that encourages recycling and reuse of fracturing fluids and oil-field-produced water.

The committee adjourned at 12:35 p.m.

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

**November 14-15, 2013
Room 307, State Capitol
Santa Fe**

The fifth meeting of the Water and Natural Resources Committee was called to order on Thursday, November 14, 2013, at 9:20 a.m. by Senator Phil A. Griego, chair, in Room 307 of the State Capitol in Santa Fe.

Present

Sen. Phil A. Griego, Chair
Rep. George Dodge, Jr., Vice Chair
Rep. Paul C. Bandy
Sen. Joseph Cervantes
Rep. Emily Kane
Rep. Larry A. Larrañaga
Sen. George K. Munoz (November 15)
Sen. Cliff R. Pirtle (November 15)
Sen. Sander Rue
Sen. Benny Shendo, Jr. (November 14)
Rep. Mimi Stewart (November 14)
Rep. James R.J. Strickler
Rep. Don L. Tripp
Sen. Peter Wirth (November 14)
Sen. Pat Woods

Absent

Rep. Phillip M. Archuleta
Rep. Brian F. Egolf, Jr.
Rep. William "Bill" J. Gray
Rep. Dona G. Irwin

Advisory Members

Rep. Gail Chasey
Sen. Carlos R. Cisneros (November 14)
Rep. Sharon Clahchischilliage
Sen. Lee S. Cotter
Rep. Anna M. Crook
Rep. Candy Spence Ezzell
Sen. Ron Griggs
Rep. Rodolpho "Rudy" S. Martinez (November 14)
Rep. W. Ken Martinez
Sen. Mary Kay Papen
Rep. Vickie Perea (November 15)
Sen. Nancy Rodriguez (November 15)
Rep. Jeff Steinborn

Rep. Cathrynn N. Brown
Sen. Pete Campos
Rep. Nora Espinoza
Sen. Stuart Ingle
Sen. Gay G. Kernan
Rep. James Roger Madalena
Sen. Cisco McSorley
Sen. Steven P. Neville
Sen. Gerald Ortiz y Pino
Sen. John C. Ryan
Rep. Henry Kiki Saavedra
Rep. Tomás E. Salazar
Sen. William E. Sharer

Rep. Bob Wooley (November 14)

Sen. John Arthur Smith

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

Staff

Jon Boller, Legislative Council Service (LCS)

Gordon Meeks, LCS

Jeret Fleetwood, LCS

Guests

The guest list is in the original meeting file.

Handouts

Handouts and other written testimony can be found in the meeting file or on the New Mexico legislature's web site at www.nmlegis.gov.

Thursday, November 14

Introductions and Announcements

Senator Griego began the meeting by having members of the committee and staff introduce themselves. Senator Wirth presented a letter to the committee from several New Mexico hunting, fishing and sportsmen organizations urging the governor to support non-diversion alternatives for any water projects proposed on the Gila River pursuant to the federal Arizona Water Settlements Act.

Ground Water Management Districts — Promoting Sustainable Ground Water Use

Steve Vandiver, general manager of the Rio Grande Water Conservation District, outlined the formation and function of ground water management subdistricts in Colorado and, in particular, in the San Luis Valley. He began by explaining that as Colorado sought to address Rio Grande Compact delivery obligations and federal Endangered Species Act of 1973 compliance, the Office of the State Engineer (OSE) began to develop rules to administer ground and surface water. Mr. Vandiver explained that development of the rules involved complex modeling of water use and that water users who impaired more senior users, particularly through ground water pumping, would likely face curtailment of water use or would have to produce a replacement plan to address the impairment to surface water users.

Mr. Vandiver explained that many ground water users in the state worried that the OSE rules would be too harsh, and users in some regions, beginning with Arkansas River Basin users, sought to stay ahead of the process by forming agricultural subdistricts. He went on to note that the subdistricts were formed to allow ground water users to develop replacement plans suitable for their particular subdistricts, and that this was a recognition that water users causing the depletions should be the ones to pay, rather than more senior users or the state. Accordingly, Mr. Vandiver explained, the legislation authorizing the creation of subdistricts granted them the

ability to assess fees on those junior users who pumped ground water and impaired the rights of more senior surface water users. He noted that subdistricts could be formed by a majority of landowners in a district petitioning to form a subdistrict and that the assessed fees, typically up to \$75.00 per acre-foot, went into a pool used to purchase and lease water rights to offset the effects of ground water pumping and also to purchase and let lie fallow land in critical areas. Mr. Vandiver emphasized that passage of the legislation authorizing subdistricts, and the formation of the subdistricts themselves, has not been easy, but that landowners eventually recognized that the alternative could be worse — the state engineer could begin to shut down wells.

Questions and comments from the committee included:

- not all areas in Colorado have formed subdistricts;
- Costilla County in Colorado is developing a mechanism similar to the ground water subdistrict system;
- in order for a subdistrict to form, over 50 percent of landowners in a proposed ground water subdistrict have to vote in favor of the formation;
- the San Luis Valley Ground Water Subdistrict raises about \$10 million a year;
- United State Department of Agriculture Natural Resources Conservation Service funding is available as part of a contract to fallow and plant a cover crop on land purchased in order to retire its water rights;
- similarities between Colorado and New Mexico water courts;
- the petition of well owners to form a subdistrict, while the statute allows for fee collection of a maximum of \$75.00 per acre-foot of water used;
- while Colorado has continued to meet its compact obligations, junior water rights holders, particularly ground water pumpers, have impaired senior water rights holders and now must make them whole;
- if New Mexico water users were to try a similar approach, additional research on the relationship between surface and ground water depletions would be necessary;
- the Colorado approach and New Mexico's active water resource management (AWRM) initiative are not altogether different, in that they both seek to avoid absolute priority administration of water, which would result in cutting off all ground water pumping in many areas;
- all of the western states are implementing some form of AWRM;
- the threat of priority administration was, in part, the impetus for developing agricultural subdistricts;
- ground water users who have junior water rights in the subdistricts pay fees, not the State of Colorado;
- the State of Colorado did pay for the modeling effort; and
- the methodology for the modeling has been tested and proven in court to be adequate for the purpose of the subdistricts.

Middle Rio Grande Levee Task Force Report

Rolf Schmidt-Petersen, Interstate Stream Commission (ISC), provided the committee with a brief history of some of the work done on the middle Rio Grande regarding flood control.

He explained that flooding in the early 1900s through the 1940s was damaging the Rio Grande Basin, so the U.S. Army Corps of Engineers reconstructed the river between Velarde and Socorro and moved the path of the river into Albuquerque, removing about 90 miles of the river. The project also introduced a system of levees, channels and canals, all of which helped to mitigate damage from flooding and snowmelt, as well as deliver water to Elephant Butte Reservoir and make compact deliveries. However, Mr. Schmidt-Petersen noted that most of those levees are at least 50 years old, and that about 200 to 300 miles of levees need to be replaced. For example, he pointed out that a project to rebuild levees near Socorro and San Acacia is under way.

John D'Antonio, deputy district engineer for project management, United States Army Corps of Engineers, explained that the Middle Rio Grande Levee Task Force was created at the request of the legislature in Senate Memorial 18 (2009 regular session), and this is the fifth report by the task force. He said that some progress and cost-sharing agreements have been made, but cautioned that New Mexico is in dire need of upgrading many of its levees, noting that the right type of storm could cause major problems for Albuquerque. The current project on the San Acacia levee will cost approximately \$287 million, he said, with state and local governments responsible for 15 percent of that amount.

John Kelly, Middle Rio Grande Conservancy District (MRGCD), explained that levees help strike a balance between water delivery and flood control. He also noted that there are \$653 million in levee needs in the Rio Grande Valley. However, Mr. Kelly said that many potential levee projects have cost-match requirements that the MRGCD cannot afford. He noted that while the district has about \$16 million in funds, \$4 million goes toward operating costs and another \$6 million is in an endowment that cannot be touched, leaving about \$5 million in reserve funding. Mr. Kelly also suggested that the MRGCD needs to raise its mill levy.

Questions and comments from the committee included:

- Federal Emergency Management Agency standards call for levees able to withstand a 100-year flood event;
- MRGCD cost-sharing of non-federal money with local sponsors;
- levees are designed to withstand certain amounts and velocities of water, rather than to store water for a certain amount of time;
- estimates are about \$3.5 million per mile to replace levees in the state;
- vegetation standards for levees have changed: trees are a problem as they rot and create structural issues;
- San Acacia levee funding comes from federal money, the Water Trust Board, the MRGCD and the ISC;
- private contractors do most of the work on levee rebuilding, but design is done in-house;
- contractors pay gross receipts taxes, which help offset state contributions;
- the growing season in the middle Rio Grande region lasts through November 15, while summer water deliveries consisted of four to six water deliveries of four to six inches each;

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- the MRGCD does not issue bonds and has no bonding capacity;
- the Middle Rio Grande Levee Task Force is developing a list of priorities;
- use of dirt dredged from the river channel being used for levees is an example of making the most efficient use of available resources and money;
- without Cochiti and Jemez Canyon dams, flows in Albuquerque would have been 15,000 to 20,000 cubic feet of water per second (cfs) during the September rains, rather than the observed 4,300 cfs; and
- the recent floods may not have constituted a 100-year event.

Use of Concentrate from Brackish Water Treatment

Aubrey Howard, Glenjohn Capital, described technology developed by Glenjohn Capital that turns concentrated brine into marketable products. He began by explaining that global water shortage issues have begun to be addressed, in part, by desalination plants, noting that there are 15,000 desalination plants in operation worldwide. However, Mr. Howard also pointed out that the byproduct of desalination plants is concentrated brine, which is difficult to dispose of. Mr. Howard said that Glenjohn Capital has developed technology that converts concentrated brine into potable water and fertilizers, including potassium nitrate, noting that he is in the fertilizer business, not the water business. Mr. Howard went on to explain that there is a growing global market for potassium nitrate, which is currently not manufactured in the United States. He also discussed plans to build a 20-million-gallon-per-day treatment plant, thus proving that the concentrated brine conversion process works, and he noted that fertilizer sales would actually offset the cost of treating the concentrated brine. Mr. Howard also suggested that the fertilizers could eventually be used to develop crops such as sugar beets, which could replace corn in ethanol production.

Questions and comments from the committee included:

- the use of the concentrated brine conversion technology to treat brackish ground water near Alamogordo is technologically feasible, but millions of gallons would have to be processed to make it economically viable;
- the quality of the treated water can be configured so that it suits its eventual purpose;
- ion exchange can also be added to the treatment process to extract heavy metals that may be present in brines;
- research has been conducted on the ground water quality of aquifers near Alamogordo and California's Imperial Valley;
- the next phase of Glenjohn Capital's plans is to find a public entity with which to form a partnership in order to provide potable water to cities;
- acid mine drains produce similarly contaminated water and can also be treated;
- there is no way for a similar company to compete without finding a use for concentrated brine; and
- potassium nitrate is currently produced in Israel and Chile.

Water Quality Project Report

Samantha Multari, a student at Hope Christian School, presented her 2013 science project, in which she tested the water from 39 different locations in New Mexico to determine the total dissolved solids (TDS) at each location. She explained that she used a digital water purity tester to measure TDS three separate times at each location, as well as testing tap, well, bottled, filtered and distilled water. Ms. Multari also collected data from 18 other states and four different countries. She reported that the well water tested at the White Sands Missile Range contained the most TDS, while samples from the Los Alamos National Laboratory had the least. Ms. Multari also pointed out that, of the various types of water she tested, well water had significantly more TDS than any other type. She also reported that, among states, South Dakota had the highest average TDS in its tap water, with California and North Carolina tying for the lowest, while New Mexico's average TDS fell in the middle. Ms. Multari also noted that TDS for tap water and well water were different at the same location at different times of day. She pointed out that water filtered by reverse osmosis and distilled water consistently had the least amount of TDS.

Questions and comments from the committee included:

- variations within the same household or at the same taps;
- proximity to old volcanic flows seemed to have some effect on samples;
- the science project was inspired by a trip to Italy, where the tap water tasted different;
- future projects could include analysis of types of contaminants at each sample site;
- 175 total water samples were tested;
- the water sample at the National Radio Astronomy Observatory's Very Large Array was taken from a drinking water fountain; and
- the sample from the White Sands Missile Range was taken from a gas station water fountain.

Utton Transboundary Resources Center Report

Marilyn C. O'Leary, interim director of the Utton Transboundary Resources Center, University of New Mexico School of Law, provided the committee with an update on the activities of the center. She explained that the previous director had retired, and that because she was the center's first director, she agreed to return as interim director for the purpose of strategic planning and searching for a new director. Ms. O'Leary explained that the purpose of the center is to bring people together on water issues without conflicts; to provide services and work with students; and to produce various water publications. She also noted that the center administers the Joe M Stell Water Ombudsman Program, and that the Utton Transboundary Resources Center is the only law-based water resources center in the state.

Darcy Bushnell, director of the Joe M Stell Water Ombudsman Program, explained that the program helps those without lawyers with water rights adjudications. She noted that the program has been focused recently on claimants in the Taos settlement, as well as redesigning the pro se forms for claimants. Ms. Bushnell also noted that the center would begin to work in Santa Fe on the Aamodt settlement soon.

Ms. O'Leary also discussed the Native American Water Rights Settlement Project, an electronic repository of Native American water rights settlements available on the internet. She said that a future project involves a database on water rights court decisions in New Mexico. Ms. O'Leary said that she wants the center to return to its 2009 funding levels so that the center could again be fully staffed.

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Questions and comments from the committee included:

- Judge Jerald A. Valentine recognized the tension between the OSE and claimants, and the importance of the ombudsman program to unrepresented water rights claimants;
- some progress is being made on adjudications, and some effort is being made to streamline the process;
- the legislature cannot make rules for the court;
- other than the ombudsman, there is no other neutral party in water rights adjudications; and
- New Mexico may be doing itself a disservice by not fully funding the Utton Transboundary Resources Center.

Acequia Perspectives on Water Scarcity, AWRM and Funding for Irrigation Infrastructure

Paula Garcia, executive director of the New Mexico Acequia Association, began by providing the committee with a brief overview of the New Mexico Acequia Association. She went on to discuss the implementation of AWRM by the OSE. Ms. Garcia explained that acequia associations prefer to settle disputes internally rather than face a priority call, noting that internal dispute resolution is a more traditional approach. She pointed to a water-sharing agreement between acequia associations on the Rio Chama as an example of the OSE and acequia associations working together to avoid a priority call on the river. Ms. Garcia also discussed the water management and metering components of AWRM, explaining that while acequia associations have a long tradition of water management and sharing, many acequia associations are looking at entering into metering agreements with the OSE to make sure that the associations retain control of the acequia itself. She said that some earlier agreements turned over control of acequia headgates to the OSE.

Ms. Garcia discussed infrastructure funding, noting that acequia associations should not be left behind in water project funding. She explained that the primary sources of infrastructure funding are the New Mexico Irrigation Works Construction Fund, capital outlay and cost-sharing projects with the ISC. However, Ms. Garcia noted that the New Mexico Irrigation Works Construction Fund will be depleted by fiscal year 2016. She also said that, with the Water Trust Board streamlining its operations, acequia associations need another water infrastructure funding source. Ms. Garcia also pointed out that the governor's executive order requiring completed audits for all capital outlay fund recipients has been particularly tough on acequia associations, and she noted that additional funding is necessary to hire an auditor to help acequia associations.

Questions and comments from the committee included:

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- the New Mexico Acequia Association serves members who oversee between 100,000 and 300,000 acres of land;
- acequia associations being granted free or reduced-cost audits from the state auditor could eventually lead to all local governments asking for help with their audits;
- the ISC has asked that funding shift from the New Mexico Irrigation Works Construction Fund to general fund money;
- acequia associations and community ditch associations are the same thing;
- over 20 acequia associations received capital outlay money in 2013, but some associations were not in compliance with audit requirements;
- the ISC and the state auditor have worked with most of the acequia associations that received capital outlay money, but the audits may not be completed in time for the December bond sale;
- most acequia associations are run by volunteers and do not have funding available to hire an auditor; and
- the problem is not unique to acequia associations, as many small entities are unable to secure funding and/or audits.

Department of Environment Initiative on River Restoration

James Hogan, Surface Water Quality Bureau, Department of Environment (NMED), provided the committee with testimony regarding the river stewardship program. He explained that the program seeks to improve the habitat for fish and wildlife, as well as to provide safe water for swimming and other recreational activities, including hunting and fishing. Mr. Hogan provided the committee with examples of past project partnerships, including the Gila River, Pecos River, Cebolla Canyon River and the Santa Fe River.

Ryan Flynn, secretary-designate of environment, also discussed the river stewardship program, explaining that the NMED is seeking a \$1.5 million capital outlay appropriation to fund projects that address the root causes of poor water quality and stream habitat. He noted that the NMED can leverage its request with \$2.24 million in federal Clean Water Act of 1977 funds. Secretary-Designate Flynn also said that the first priority for future projects is projects that address water quality and stream habitat impacts associated with the wildfires experienced in the last three years or projects that advance source-water protection of public drinking water. He also noted that past capital outlay funding for river stewardship programs supported 48 projects across the state, restored 34.6 miles of river and supported 73 contractors, most of which were New Mexico businesses.

Questions and comments from the committee included:

- how far \$1.5 million really goes when it costs millions of dollars to restore habitat after a single large wildfire;
- river restoration, in particular near-stream habitat restoration, is the real focus;
- projects go through a request for proposals process, but some areas are higher priority than others;
- \$1.5 million is the governor's capital outlay request;

- the average cost of a project is about \$200,000 to \$300,000;
- the importance of maintaining investments in river restoration; and
- the concept of investing in cooperation with other entities is a good one.

The committee recessed at 4:20 p.m.

D Friday, November 15

Senator Griego began the meeting by welcoming Representative Perea, who was appointed by the governor to fill the vacancy in House District 50.

Update on Wildlife Safety Zones

Mark Watson, Department of Game and Fish, and Coleman Burnett, Department of Transportation (DOT), provided the committee with an update on the creation of wildlife safety zones to reduce the number of collisions between wildlife and vehicles on New Mexico roads. They explained that a number of workshops were held in 2011 to identify problem areas, and a segment of U.S. 64 between Chama and Tierra Amarilla was selected for a pilot project. Mr. Watson and Ms. Burnett said that the pilot project featured vegetation management and flashing warning signs. They also noted that more workshops were held earlier in 2013 and that 32 more priority segments of road were identified, which were eventually narrowed to three high-priority segments: Interstate 25 near Raton, U.S. Highway 550 near Cuba and U.S. Highway 70 near Mescalero. Mr. Watson and Ms. Burnett went on to discuss the various strategies employed on each segment, such as fencing that directs wildlife to culverts under the road on Interstate 25 and flashing signs on U.S. 550 and U.S. 70.

Questions and comments from the committee included:

- involvement of the Wild Friends Program at the University of New Mexico in the passage of the original memorial calling for wildlife safety zones;
- the data set used to select priority road segments featured about 10,000 records over about 10 years, although that probably represents half of the actual number of collisions, as most go unreported;
- some collisions do involve injuries to motorists;
- the DOT is using all available data to look at building wildlife mitigation features into new roads;
- some federal highway safety money is available for programs like this;
- wildlife detection signs employed in Colorado near Bayfield rely on an echophone system that detects movement and are only about 30 percent effective;
- there are national data that can be analyzed to determine the effectiveness of various approaches to wildlife-vehicle collisions;
- follow-up studies in New Mexico will take five to 10 years and will likely require additional funding; and
- data are not immediately available on how changes in speed limits affect wildlife-vehicle collision statistics.

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

On a motion made, seconded and passed, the minutes of the August meeting of the Water and Natural Resources Committee were approved as submitted.

Michael Aune presented the committee with a letter requesting action in the United States Congress on two issues: funding for watershed restoration and fire prevention and holding the United States Forest Service responsible for forest fire mitigation. Mr. Aune said that money from the federal Land and Water Conservation Fund previously had been distributed to the states, and he urged Congress to restore funding to the state. He said that there is no state funding to get watersheds in order, and the state cannot depend solely on the Federal Emergency Management Agency for watershed funding.

Consideration of Legislation

Pam Roy, co-director of Farm to Table, presented a bill requesting a \$1.4 million appropriation to the Public Education Department to purchase New Mexico-grown fresh fruits and vegetables for school meal programs.

On a motion made, seconded and passed, the committee endorsed the bill.

T.J. Trujillo presented the committee with a bill excluding humate from the New Mexico Mining Act and changing financial assurance requirements for all mining operations.

On a motion made, seconded and passed, the committee endorsed the bill.

Mr. Trujillo presented a second bill, which changed financial assurance requirements in the New Mexico Mining Act, that was also endorsed by the committee without objection.

Mr. Trujillo also presented the committee with a third bill amending the Right to Farm Act to prevent certain agricultural operation facilities from being found to be operating negligently and to clarify that operating in conformity with federal, state and local laws and regulations creates a presumption of operating in a manner consistent with accepted agricultural practices.

The committee amended the bill to strike Subsection C in its entirety.

On a motion made, seconded and passed, the committee endorsed the amended bill.

Representatives from Citizen Action New Mexico spoke to the committee regarding the mixed-waste landfill at Sandia National Laboratories. They explained that dangerous metals and radioactive material are in the unlined landfill, which could potentially contaminate

Albuquerque's ground water. The representatives from Citizen Action New Mexico requested that a schedule for completion of cleanup of the landfill be established and that a plan for decommission and remediation of the landfill be developed.

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There being no further business, the committee adjourned at 11:30 a.m.

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ENDORSED BILLS

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HOUSE BILL

51ST LEGISLATURE - STATE OF NEW MEXICO - SECOND SESSION, 2014

INTRODUCED BY

FOR THE WATER AND NATURAL RESOURCES COMMITTEE

AN ACT

MAKING AN APPROPRIATION TO PROVIDE NEW MEXICO GROWN FRESH
FRUITS AND VEGETABLES FOR SCHOOL MEALS.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF NEW MEXICO:

SECTION 1. APPROPRIATION.--One million four hundred forty
thousand dollars (\$1,440,000) is appropriated from the general
fund to the public education department for expenditure in
fiscal year 2015 and subsequent fiscal years for the public
education department to distribute to school districts and
charter schools for the purchase of New Mexico grown fresh
fruits and vegetables for school meal programs. The public
education department, in coordination with the New Mexico
department of agriculture, shall ensure that the appropriated
funds are expended for the stated purpose. Any unexpended or
unencumbered balance remaining at the end of a fiscal year

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1 shall not revert to the general fund.

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HOUSE BILL

51ST LEGISLATURE - STATE OF NEW MEXICO - SECOND SESSION, 2014

INTRODUCED BY

FOR THE WATER AND NATURAL RESOURCES COMMITTEE

AN ACT

RELATING TO AGRICULTURE; AMENDING THE RIGHT TO FARM ACT TO PREVENT CERTAIN AGRICULTURAL OPERATIONS OR AGRICULTURAL FACILITIES FROM BEING FOUND TO BE A NUISANCE.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF NEW MEXICO:

SECTION 1. Section 47-9-3 NMSA 1978 (being Laws 1981, Chapter 287, Section 3, as amended) is amended to read:

"47-9-3. AGRICULTURAL OPERATIONS DEEMED NOT A NUISANCE.--

A. Any agricultural operation or agricultural facility is not, nor shall it become, a private or public nuisance by any changed condition in or about the locality of the agricultural operation or agricultural facility if the operation was not a nuisance at the time the operation began and has been in existence for more than one year; except that the provisions of this section shall not apply whenever an

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1 agricultural operation or agricultural facility is operated
2 negligently [~~improperly~~] or illegally such that the operation
3 or facility is a nuisance.

4 B. Any ordinance or resolution of any unit of local
5 government that makes the operation of any agricultural
6 operation or agricultural facility a nuisance or provides for
7 abatement of it as a nuisance under the circumstances set forth
8 in this section shall not apply when an agricultural operation
9 is located within the corporate limits of any municipality as
10 of [~~the effective date of the Right to Farm Act~~] April 8, 1981.

11 C. The established date of operation is the date on
12 which an agricultural operation commenced or an agricultural
13 facility was originally constructed. If an agricultural
14 operation or agricultural facility is subsequently expanded or
15 a new technology is adopted, the established date of operation
16 does not change."

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SENATE BILL

51ST LEGISLATURE - STATE OF NEW MEXICO - SECOND SESSION, 2014

INTRODUCED BY

FOR THE WATER AND NATURAL RESOURCES COMMITTEE

AN ACT

RELATING TO MINING; AMENDING A SECTION OF THE NEW MEXICO MINING ACT TO EXEMPT CERTAIN HUMATE MINES FROM PERMITTING REQUIREMENTS OF THAT ACT; DECLARING AN EMERGENCY.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF NEW MEXICO:

SECTION 1. Section 69-36-1 NMSA 1978 (being Laws 1993, Chapter 315, Section 1) is amended to read:

"69-36-1. SHORT TITLE.--~~[This act]~~ Chapter 69, Article 36 NMSA 1978 may be cited as the "New Mexico Mining Act"."

SECTION 2. Section 69-36-7 NMSA 1978 (being Laws 1993, Chapter 315, Section 7, as amended) is amended to read:

"69-36-7. COMMISSION--DUTIES.--The commission shall:

A. before June 18, 1994, adopt and file reasonable regulations consistent with the purposes and intent of the New Mexico Mining Act necessary to implement the provisions of the

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1 New Mexico Mining Act, including regulations that:

2 (1) consider the economic and environmental
3 effects of their implementation;

4 (2) require permitting of all new and existing
5 mining operations and exploration; and

6 (3) require annual reporting of production
7 information to the commission, which shall be kept confidential
8 if otherwise required by law;

9 B. adopt regulations for new mining operations that
10 allow the director to select a qualified expert who may:

11 (1) review and comment to the director on the
12 adequacy of baseline data gathered prior to submission of the
13 permit application for use in the permit application process;

14 (2) recommend to the director additional
15 baseline data that may be necessary in the review of the
16 proposed mining activity;

17 (3) recommend to the director methodology
18 guidelines to be followed in the collection of all baseline
19 data; and

20 (4) review and comment on the permit
21 application;

22 C. adopt regulations that require and provide for
23 the issuance and renewal of permits for new and existing mining
24 operations and exploration and that establish schedules to
25 bring existing mining operations into compliance with the

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1 requirements of the New Mexico Mining Act; provided that the
2 term of a permit for a new mining operation shall not exceed
3 twenty years and the term of renewals of permits for new mining
4 operations shall not exceed ten years;

5 D. adopt regulations that provide for permit
6 modifications. The commission shall establish criteria to
7 determine which permit modifications may have significant
8 environmental impact. Modifications that the director
9 determines will have significant environmental impact shall
10 require public notice and an opportunity for public hearing
11 pursuant to Subsection K of this section. A permit
12 modification to the permit for an existing mining operation
13 shall be obtained for each new discrete processing, leaching,
14 excavation, storage or stockpile unit located within the permit
15 area of an existing mining operation and not identified in the
16 permit of an existing mining operation and for each expansion
17 of such a unit identified in the permit for an existing mining
18 operation that exceeds the design limits specified in the
19 permit. The regulations shall require that permit
20 modifications for such units be approved if the director
21 determines that the unit will:

22 (1) comply with the regulations regarding
23 permit modifications;

24 (2) incorporate the requirements of Paragraphs
25 (1), (2), (4), (5) and (6) of Subsection H of this section; and

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1 (3) be sited and constructed in a manner that
2 facilitates, to the maximum extent practicable, contemporaneous
3 reclamation consistent with the closeout plan;

4 E. adopt regulations that require new and existing
5 mining operations to obtain and maintain permits for standby
6 status. A permit for standby status shall be issued for a
7 maximum term of five years; provided that, upon application,
8 the director may renew a permit for standby status for no more
9 than three additional five-year terms. The regulations shall
10 require that, before a permit for standby status is issued or
11 renewed, an owner or operator shall:

12 (1) identify the projected term of standby
13 status for each unit of the new or existing mining operation;

14 (2) take measures that reduce, to the extent
15 practicable, the formation of acid and other toxic drainage to
16 prevent releases that cause federal or state environmental
17 standards to be exceeded;

18 (3) meet applicable federal and state
19 environmental standards and regulations during the period of
20 standby status;

21 (4) stabilize waste and storage units, leach
22 piles, impoundments and pits during the term of standby status;

23 (5) comply with applicable requirements of the
24 New Mexico Mining Act and the regulations adopted pursuant to
25 that act; and

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1 (6) provide an analysis of the economic
2 viability of each unit proposed for standby status;

3 F. establish by regulation closeout plan
4 requirements for existing mining operations that incorporate
5 site-specific characteristics, including consideration of
6 disturbances from previous mining operations, and that take
7 into account the mining method utilized;

8 G. establish by regulation a procedure for the
9 issuance of a permit for an existing mining operation and for
10 modifications of that permit to incorporate approved closeout
11 plans or portions of closeout plans and financial assurance
12 requirements for performance of the closeout plans. The permit
13 shall describe the permit area of the existing mining operation
14 and the design limits of units of the existing mining operation
15 based upon the site assessment submitted by the operator. The
16 permit shall contain a schedule for completion of a closeout
17 plan. The permit shall thereafter be modified to incorporate
18 the approved closeout plan or portions of the closeout plan
19 once financial assurance has been provided for completion of
20 the closeout plan or the approved portions of the closeout
21 plan. The permit may be modified for new mining units,
22 expansions beyond the design limits of a unit at an existing
23 mining operation or standby status;

24 H. establish by regulation permit and reclamation
25 requirements for new mining operations that incorporate site-

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1 specific characteristics. These requirements shall, at a
2 minimum:

3 (1) require that new mining operations be
4 designed and operated using the most appropriate technology and
5 the best management practices;

6 (2) [~~assure~~] ensure protection of human health
7 and safety, the environment, wildlife and domestic animals;

8 (3) include backfilling or partial backfilling
9 only when necessary to achieve reclamation objectives that
10 cannot be accomplished through other mitigation measures;

11 (4) require approval by the director that the
12 permit area will achieve a self-sustaining ecosystem
13 appropriate for the life zone of the surrounding areas
14 following closure unless conflicting with the approved post-
15 mining land use;

16 (5) require that new mining operations be
17 designed in a manner that incorporates measures to reduce, to
18 the extent practicable, the formation of acid and other toxic
19 drainage that may otherwise occur following closure to prevent
20 releases that cause federal or state standards to be exceeded;

21 (6) require that nonpoint source surface
22 releases of acid or other toxic substances shall be contained
23 within the permit area;

24 (7) require that all waste, waste management
25 units, pits, heaps, pads and any other storage piles are

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1 designed, sited and constructed in a manner that facilitates,
2 to the maximum extent practicable, contemporaneous reclamation
3 and are consistent with the new mining operation's approved
4 reclamation plan; and

5 (8) where sufficient topsoil is present, take
6 measures to preserve it from erosion or contamination and
7 [~~assure~~] ensure that it is in a usable condition for sustaining
8 vegetation when needed;

9 I. adopt regulations that establish a permit
10 application process for new mining operations that includes:

11 (1) disclosure of ownership and controlling
12 interests in the new mining operation or submission of the
13 applicant's most recent form 10K required by the federal
14 securities and exchange commission;

15 (2) a statement of all mining operations
16 within the United States owned, operated or directly controlled
17 by the applicant, owner or operator and by persons or entities
18 that directly control the applicant and the names and the
19 addresses of regulatory agencies with jurisdiction over the
20 environmental aspects of those operations and that could
21 provide a compliance history for those operations [~~and~~] over
22 the preceding ten years. The operator shall assist the
23 applicant in obtaining compliance history information;

24 (3) a description of the type and method of
25 mining and the engineering techniques proposed;

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1 (4) the anticipated starting and termination
2 dates of each phase of the new mining operation and the number
3 of acres of land to be affected;

4 (5) the names of all affected watersheds, the
5 location of any perennial, ephemeral or intermittent surface
6 stream or tributary into which surface or pit drainage will be
7 discharged or may possibly be expected to reach and the
8 location of any spring within the permit area and the affected
9 area;

10 (6) a determination of the probable hydrologic
11 consequences of the new mining operation and reclamation, both
12 on and off the permit area, with respect to the hydrologic
13 regime, quantity and quality of surface and ground water
14 systems, including the dissolved and suspended solids under
15 seasonal flow conditions;

16 (7) cross-sections or plans of the permit area
17 depicting:

18 (a) the nature and depth of the various
19 formations of overburden;

20 (b) the location of subsurface water, if
21 encountered, and its quality;

22 (c) the nature and location of any ore
23 body to be mined;

24 (d) the location of aquifers and
25 springs;

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1 (e) the estimated position and flow of
2 the water table;

3 (f) the proposed location of waste rock,
4 tailings, stockpiles, heaps, pads and topsoil preservation
5 areas; and

6 (g) pre-mining vegetation and wildlife
7 habitat features present at the site;

8 (8) the potential for geochemical alteration
9 of overburden, the ore body and other materials present within
10 the permit area;

11 (9) a reclamation plan that includes a
12 detailed description of the proposed post-mining land use and
13 how that use is to be achieved; and

14 (10) pre-mining baseline data as required by
15 regulations adopted by the commission;

16 J. adopt regulations to coordinate the roles of
17 permitting agencies involved in regulating activities related
18 to new and existing mining operations and exploration,
19 including regulatory requirements, to avoid duplicative and
20 conflicting administration of the permitting process and other
21 requirements;

22 K. except for regulations enacted pursuant to
23 Subsection L of this section, adopt regulations that ensure
24 that the public and permitting agencies receive notice of each
25 application for issuance, renewal or revision of a permit for a

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1 new or existing mining operation, for standby status, or
2 exploration, a variance or an application for release of
3 financial assurance and any inspection prior to the release of
4 financial assurance, including a provision that no action shall
5 be taken on any application until an opportunity for a public
6 hearing, held in the locality of the operation, is provided and
7 that all interested persons shall be given a reasonable chance
8 to submit data, views or arguments orally or in writing and to
9 examine witnesses testifying at the hearing. An additional
10 opportunity for a public hearing may be provided if the
11 applicant makes substantial changes in the proposed action, if
12 there are significant new circumstances or information bearing
13 on the proposed action or if the applicant proposes to
14 substantially increase the scale or substantially change the
15 nature of the proposed action and there is public interest and
16 a request for a public hearing. These regulations shall
17 require at a minimum that the applicant for issuance, renewal
18 or revisions of a permit or a variance or an application for
19 release of financial assurance and any inspection prior to
20 release of financial assurance shall provide to the director at
21 the time of filing the application with the director proof that
22 notice of the application and of the procedure for requesting a
23 public hearing has been:

24 (1) provided by certified mail to the owners
25 of record, as shown by the most recent property tax schedule,

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1 of all properties within one-half mile of the property on which
2 the mining operation is located or is proposed to be located;

3 (2) provided by certified mail to all
4 municipalities and counties within a ten-mile radius of the
5 property on which the mining operation is or will be located;

6 (3) published once in a newspaper of general
7 circulation in each county in which the property on which the
8 mining operation is or will be located; provided that this
9 notice shall appear in either the classified or legal
10 advertisements section of the newspaper and at one other place
11 in the newspaper calculated to give the general public the most
12 effective notice and, when appropriate, shall be printed in
13 both English and Spanish;

14 (4) posted in at least four publicly
15 accessible and conspicuous places, including the entrance to
16 the new or existing mining operation if that entrance is
17 publicly accessible and conspicuous;

18 (5) mailed to all persons who have made a
19 written request to the director for notice of this application;
20 and

21 (6) mailed by certified mail to all persons on
22 a list maintained by the director of individuals and
23 organizations who have requested notice of applications under
24 [~~this~~] the New Mexico Mining Act. If the application is
25 determined to be administratively complete by the director, the

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1 applicant shall provide to the director timely proof that
2 notice of that determination has been provided by first class
3 mail to everyone who has indicated to the applicant in writing
4 that they desire information regarding the application and to a
5 list maintained by the director of individuals and
6 organizations who have requested notice of applications under
7 [~~this~~] the New Mexico Mining Act;

8 L. adopt regulations to provide for permits,
9 without notice and hearing, to address mining operations that
10 have minimal impact on the environment; provided that such
11 permits shall require general plans and shall otherwise reduce
12 the permitting requirements of the New Mexico Mining Act;

13 M. establish by regulation a schedule of annual
14 administrative and permit fees, which shall equal and not
15 exceed the estimated costs of administration, implementation,
16 enforcement, investigation and permitting pursuant to the
17 provisions of the New Mexico Mining Act. The size of the
18 operation, anticipated inspection frequency and other factors
19 deemed relevant by the commission shall be considered in the
20 determination of the fees. The fees established pursuant to
21 this subsection shall be deposited in the mining act fund;

22 N. establish by regulation a continuing process of
23 review of mining and reclamation practices in New Mexico that
24 provides for periodic review and amendment of regulations and
25 procedures to provide for the protection of the environment and

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1 consider the economic effects of the regulations;

2 O. adopt regulations governing the provision of
3 variances issued by the director, stating the procedures for
4 seeking a variance, including provisions for public notice and
5 an opportunity for a hearing in the locality where the variance
6 will be operative, the limitations on provision of variances,
7 requiring the petitioner to present sufficient evidence to
8 prove that failure to grant a variance will impose an undue
9 economic burden and that granting the variance will not result
10 in a significant threat to human health, safety or the
11 environment;

12 P. provide by regulation that, prior to the
13 issuance of any permit for a new mining operation pursuant to
14 the provisions of the New Mexico Mining Act, the permit
15 applicant or operator:

16 (1) shall provide evidence to the director
17 that other applicable state and federal permits required to be
18 obtained by the new or existing mining operation either have
19 been or will be issued before the activities subject to those
20 permits begin; and

21 (2) shall provide to the director a written
22 determination from the secretary of environment stating that
23 the permit applicant has demonstrated that the activities to be
24 permitted or authorized will be expected to achieve compliance
25 with all applicable air and water quality and other

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1 environmental standards if carried out as described;

2 Q. require by regulation that the applicant file
3 with the director, prior to the issuance of a permit, financial
4 assurance. The amount of the financial assurance shall be
5 sufficient to assure the completion of the performance
6 requirements of the permit, including closure and reclamation,
7 if the work [~~had~~] has to be performed by the director or a
8 third-party contractor and shall include periodic review to
9 account for any inflationary increases and anticipated changes
10 in reclamation or closure costs. The regulations shall specify
11 that financial requirements shall neither duplicate nor be less
12 comprehensive than the federal financial requirements. The
13 form and amount of the financial assurance shall be subject to
14 the approval of the director as part of the permit application;
15 provided that financial assurance does not include any type or
16 variety of self-guarantee or self-insurance;

17 R. require by regulation that the permittee may
18 file an application with the director for the release of all or
19 part of the permittee's financial assurance. [~~The permittee~~
20 ~~shall not file an application for release of financial~~
21 ~~assurance more than once per year for each mining operation.~~]
22 The application shall describe the reclamation measures
23 completed and shall contain an estimate of the costs of
24 reclamation measures that have not been completed. Prior to
25 release of any portion of the permittee's financial assurance,

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1 the director shall conduct an inspection and evaluation of the
2 reclamation work involved. The director shall notify persons
3 who have requested advance notice of the inspection.
4 Interested members of the public shall be allowed to be present
5 at the inspection of the reclamation work by the director.

6 (1) The director may release in whole or in
7 part the financial assurance if the reclamation covered by the
8 financial assurance has been accomplished as required by the
9 New Mexico Mining Act; provided that the director shall retain
10 financial assurance at least equal to the approved estimated
11 costs of completing reclamation measures that have not been
12 completed; and provided further that for revegetated areas, the
13 director shall retain the amount of financial assurance
14 necessary for a third party to reestablish vegetation for a
15 period of twelve years after the last year of augmented
16 seeding, fertilizing, irrigation or other work, unless a post-
17 mining land use is achieved that is inconsistent with the
18 further need for revegetation. For new mining operations only,
19 no part of the financial assurance necessary for a third party
20 to reestablish vegetation shall be released so long as the
21 lands to which the release would be applicable are contributing
22 suspended solids above background levels to streamflow of
23 intermittent and perennial streams.

24 (2) A person with an interest that is or will
25 be adversely affected by release of the financial assurance may

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1 file, with the director within thirty days of the date of the
2 inspection, written objections to the proposed release from
3 financial assurance. If written objections are filed and a
4 hearing is requested, the director shall inform all the
5 interested parties of the time and place of the hearing at
6 least thirty days in advance of the public hearing, and hold a
7 public hearing in the locality of the new or existing mining
8 operation or exploration operation proposed for release from
9 financial assurance. The date, time and location of the public
10 hearing shall be advertised by the director in a newspaper of
11 general circulation in the locality for two consecutive weeks,
12 and all persons who have submitted a written request in advance
13 to the director to receive notices of hearings shall be
14 provided notice at least thirty days prior to the hearing;

15 S. establish coordinated procedures that avoid
16 duplication for the inspection, monitoring and sampling of air,
17 soil and water and enforcement of applicable requirements of
18 the New Mexico Mining Act, regulations adopted pursuant to that
19 act and permit conditions for new and existing mining
20 operations and exploration. The regulations shall require, at
21 a minimum:

22 (1) inspections by the director occurring on
23 an irregular basis according to the following schedule:

24 (a) at least one inspection per month
25 when the mining operation is conducting significant reclamation

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1 activities;

2 (b) at least two inspections per year
3 for active mining operations;

4 (c) at least one inspection per year on
5 inactive sites;

6 (d) at least one inspection per year
7 following completion of all significant reclamation activities,
8 but prior to release of financial assurance; and

9 (e) mining operations having a minimal
10 impact on the environment and exploration operations will be
11 inspected on a schedule to be established by the commission;

12 (2) that inspections shall occur without prior
13 notice to the permittee or [~~his~~] the permittee's agents or
14 employees except for necessary on-site meetings with the
15 permittee;

16 (3) when the director determines that a
17 condition or practice exists that violates a requirement of the
18 New Mexico Mining Act, a regulation adopted pursuant to that
19 act or a permit issued under that act, which condition,
20 practice or violation also creates an imminent danger to the
21 health or safety of the public or will cause significant
22 imminent environmental harm, that the director shall
23 immediately order a cessation of the new or existing mining
24 operation or the exploration operation or the portion of that
25 operation relevant to the condition, practice or violation.

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1 The cessation order shall remain in effect until the director
2 determines that the condition, practice or violation has been
3 abated or until modified, vacated or terminated by the director
4 or the commission;

5 (4) when the director determines that an owner
6 or operator is in violation of a requirement of the New Mexico
7 Mining Act, a regulation adopted pursuant to that act or a
8 permit issued pursuant to that act but the violation does not
9 create an imminent danger to the health or safety of the public
10 or will not cause significant imminent environmental harm, that
11 the director shall issue a notice to the owner or operator
12 fixing a reasonable time, not to exceed sixty days, for the
13 abatement of the violation. If, upon expiration of the period
14 of time as originally fixed or subsequently extended for good
15 cause shown, the director finds that the violation has not been
16 abated, [~~he~~] the director shall immediately order a cessation
17 of new or existing mining operations or exploration operations
18 or the portion thereof relevant to the violation. The
19 cessation order shall remain in effect until the director
20 determines that the violation has been abated; and

21 (5) when the director determines that a
22 pattern of violations of the requirements of the New Mexico
23 Mining Act or of the regulations adopted pursuant to that act
24 or the permit required by that act exists or has existed and,
25 if the director also finds that such violations are caused by

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1 the unwarranted failure of the owner or operator to comply with
2 the requirements of that act, regulation or permit or that such
3 violations are willfully caused by the owner or operator, that
4 the director shall immediately issue an order to the owner or
5 operator to show cause as to why the permit should not be
6 suspended or revoked;

7 T. provide for the transfer of a permit to a
8 successor operator, providing for release of the first operator
9 from obligations under the permit, including financial
10 assurance, following the approved assumption of such
11 obligations and financial assurance by the successor operator;

12 U. adopt regulations providing that the owner or
13 operator of an existing mining operation or a new mining
14 operation who has completed some reclamation measures prior to
15 the effective date of the regulations adopted pursuant to the
16 New Mexico Mining Act may apply for an inspection of those
17 reclamation measures and a release from further requirements
18 pursuant to that act for the reclaimed areas if, after an
19 inspection, the director determines that the reclamation
20 measures satisfy the requirements of that act and the
21 substantive requirements for reclamation pursuant to the
22 applicable regulatory standards; ~~and~~

23 V. adopt regulations for mining operations that
24 extract only humate, which regulations exempt those mining
25 operations from the permit, inspection, closeout plan,

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1 reclamation, financial assurance and fee requirements of the
2 New Mexico Mining Act and the regulations adopted thereunder if
3 the mine is located on:

- 4 (1) federal public lands;
- 5 (2) state trust lands; or
- 6 (3) lands where the surface is privately owned
7 and the surface owner provides a written certification to the
8 director that the mining operation will be reclaimed and
9 restored to achieve a post-mining land use acceptable to the
10 surface owner. The director shall propose the rule to the
11 commission on or before August 1, 2014, and the commission
12 shall hold a hearing pursuant to the New Mexico Mining Act and
13 adopt and file the rule on or before December 31, 2014; and

14 [~~V-~~] W. develop and adopt other regulations
15 necessary and appropriate to carry out the purposes and
16 provisions of the New Mexico Mining Act."

17 SECTION 3. EMERGENCY.--It is necessary for the public
18 peace, health and safety that this act take effect immediately.

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SENATE BILL

51ST LEGISLATURE - STATE OF NEW MEXICO - SECOND SESSION, 2014

INTRODUCED BY

FOR THE WATER AND NATURAL RESOURCES COMMITTEE

AN ACT

RELATING TO MINING; AMENDING A SECTION OF THE NEW MEXICO MINING ACT TO PROVIDE FOR FINANCIAL ASSURANCES; DECLARING AN EMERGENCY.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF NEW MEXICO:

SECTION 1. Section 69-36-1 NMSA 1978 (being Laws 1993, Chapter 315, Section 1) is amended to read:

"69-36-1. SHORT TITLE.--~~[This act]~~ Chapter 69, Article 36 NMSA 1978 may be cited as the "New Mexico Mining Act"."

SECTION 2. Section 69-36-7 NMSA 1978 (being Laws 1993, Chapter 315, Section 7, as amended) is amended to read:

"69-36-7. COMMISSION--DUTIES.--The commission shall:

A. before June 18, 1994, adopt and file reasonable regulations consistent with the purposes and intent of the New Mexico Mining Act necessary to implement the provisions of the

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1 New Mexico Mining Act, including regulations that:

2 (1) consider the economic and environmental
3 effects of their implementation;

4 (2) require permitting of all new and existing
5 mining operations and exploration; and

6 (3) require annual reporting of production
7 information to the commission, which shall be kept confidential
8 if otherwise required by law;

9 B. adopt regulations for new mining operations that
10 allow the director to select a qualified expert who may:

11 (1) review and comment to the director on the
12 adequacy of baseline data gathered prior to submission of the
13 permit application for use in the permit application process;

14 (2) recommend to the director additional
15 baseline data that may be necessary in the review of the
16 proposed mining activity;

17 (3) recommend to the director methodology
18 guidelines to be followed in the collection of all baseline
19 data; and

20 (4) review and comment on the permit
21 application;

22 C. adopt regulations that require and provide for
23 the issuance and renewal of permits for new and existing mining
24 operations and exploration and that establish schedules to
25 bring existing mining operations into compliance with the

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1 requirements of the New Mexico Mining Act; provided that the
2 term of a permit for a new mining operation shall not exceed
3 twenty years and the term of renewals of permits for new mining
4 operations shall not exceed ten years;

5 D. adopt regulations that provide for permit
6 modifications. The commission shall establish criteria to
7 determine which permit modifications may have significant
8 environmental impact. Modifications that the director
9 determines will have significant environmental impact shall
10 require public notice and an opportunity for public hearing
11 pursuant to Subsection K of this section. A permit
12 modification to the permit for an existing mining operation
13 shall be obtained for each new discrete processing, leaching,
14 excavation, storage or stockpile unit located within the permit
15 area of an existing mining operation and not identified in the
16 permit of an existing mining operation and for each expansion
17 of such a unit identified in the permit for an existing mining
18 operation that exceeds the design limits specified in the
19 permit. The regulations shall require that permit
20 modifications for such units be approved if the director
21 determines that the unit will:

22 (1) comply with the regulations regarding
23 permit modifications;

24 (2) incorporate the requirements of Paragraphs
25 (1), (2), (4), (5) and (6) of Subsection H of this section; and

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1 (3) be sited and constructed in a manner that
2 facilitates, to the maximum extent practicable, contemporaneous
3 reclamation consistent with the closeout plan;

4 E. adopt regulations that require new and existing
5 mining operations to obtain and maintain permits for standby
6 status. A permit for standby status shall be issued for a
7 maximum term of five years; provided that, upon application,
8 the director may renew a permit for standby status for no more
9 than three additional five-year terms. The regulations shall
10 require that, before a permit for standby status is issued or
11 renewed, an owner or operator shall:

12 (1) identify the projected term of standby
13 status for each unit of the new or existing mining operation;

14 (2) take measures that reduce, to the extent
15 practicable, the formation of acid and other toxic drainage to
16 prevent releases that cause federal or state environmental
17 standards to be exceeded;

18 (3) meet applicable federal and state
19 environmental standards and regulations during the period of
20 standby status;

21 (4) stabilize waste and storage units, leach
22 piles, impoundments and pits during the term of standby status;

23 (5) comply with applicable requirements of the
24 New Mexico Mining Act and the regulations adopted pursuant to
25 that act; and

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1 (6) provide an analysis of the economic
2 viability of each unit proposed for standby status;

3 F. establish by regulation closeout plan
4 requirements for existing mining operations that incorporate
5 site-specific characteristics, including consideration of
6 disturbances from previous mining operations, and that take
7 into account the mining method utilized;

8 G. establish by regulation a procedure for the
9 issuance of a permit for an existing mining operation and for
10 modifications of that permit to incorporate approved closeout
11 plans or portions of closeout plans and financial assurance
12 requirements for performance of the closeout plans. The permit
13 shall describe the permit area of the existing mining operation
14 and the design limits of units of the existing mining operation
15 based upon the site assessment submitted by the operator. The
16 permit shall contain a schedule for completion of a closeout
17 plan. The permit shall thereafter be modified to incorporate
18 the approved closeout plan or portions of the closeout plan
19 once financial assurance has been provided for completion of
20 the closeout plan or the approved portions of the closeout
21 plan. The permit may be modified for new mining units,
22 expansions beyond the design limits of a unit at an existing
23 mining operation or standby status;

24 H. establish by regulation permit and reclamation
25 requirements for new mining operations that incorporate site-

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underscored material = new
[bracketed material] = delete

1 specific characteristics. These requirements shall, at a
2 minimum:

3 (1) require that new mining operations be
4 designed and operated using the most appropriate technology and
5 the best management practices;

6 (2) [~~assure~~] ensure protection of human health
7 and safety, the environment, wildlife and domestic animals;

8 (3) include backfilling or partial backfilling
9 only when necessary to achieve reclamation objectives that
10 cannot be accomplished through other mitigation measures;

11 (4) require approval by the director that the
12 permit area will achieve a self-sustaining ecosystem
13 appropriate for the life zone of the surrounding areas
14 following closure unless conflicting with the approved post-
15 mining land use;

16 (5) require that new mining operations be
17 designed in a manner that incorporates measures to reduce, to
18 the extent practicable, the formation of acid and other toxic
19 drainage that may otherwise occur following closure to prevent
20 releases that cause federal or state standards to be exceeded;

21 (6) require that nonpoint source surface
22 releases of acid or other toxic substances shall be contained
23 within the permit area;

24 (7) require that all waste, waste management
25 units, pits, heaps, pads and any other storage piles are

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1 designed, sited and constructed in a manner that facilitates,
2 to the maximum extent practicable, contemporaneous reclamation
3 and are consistent with the new mining operation's approved
4 reclamation plan; and

5 (8) where sufficient topsoil is present, take
6 measures to preserve it from erosion or contamination and
7 [~~assure~~] ensure that it is in a usable condition for sustaining
8 vegetation when needed;

9 I. adopt regulations that establish a permit
10 application process for new mining operations that includes:

11 (1) disclosure of ownership and controlling
12 interests in the new mining operation or submission of the
13 applicant's most recent form 10K required by the federal
14 securities exchange commission;

15 (2) a statement of all mining operations
16 within the United States owned, operated or directly controlled
17 by the applicant, owner or operator and by persons or entities
18 that directly control the applicant and the names and the
19 addresses of regulatory agencies with jurisdiction over the
20 environmental aspects of those operations and that could
21 provide a compliance history for those operations [~~and~~] over
22 the preceding ten years. The operator shall assist the
23 applicant in obtaining compliance history information;

24 (3) a description of the type and method of
25 mining and the engineering techniques proposed;

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1 (4) the anticipated starting and termination
2 dates of each phase of the new mining operation and the number
3 of acres of land to be affected;

4 (5) the names of all affected watersheds, the
5 location of any perennial, ephemeral or intermittent surface
6 stream or tributary into which surface or pit drainage will be
7 discharged or may possibly be expected to reach and the
8 location of any spring within the permit area and the affected
9 area;

10 (6) a determination of the probable hydrologic
11 consequences of the new mining operation and reclamation, both
12 on and off the permit area, with respect to the hydrologic
13 regime, quantity and quality of surface and ground water
14 systems, including the dissolved and suspended solids under
15 seasonal flow conditions;

16 (7) cross-sections or plans of the permit area
17 depicting:

18 (a) the nature and depth of the various
19 formations of overburden;

20 (b) the location of subsurface water, if
21 encountered, and its quality;

22 (c) the nature and location of any ore
23 body to be mined;

24 (d) the location of aquifers and
25 springs;

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1 (e) the estimated position and flow of
2 the water table;

3 (f) the proposed location of waste rock,
4 tailings, stockpiles, heaps, pads and topsoil preservation
5 areas; and

6 (g) pre-mining vegetation and wildlife
7 habitat features present at the site;

8 (8) the potential for geochemical alteration
9 of overburden, the ore body and other materials present within
10 the permit area;

11 (9) a reclamation plan that includes a
12 detailed description of the proposed post-mining land use and
13 how that use is to be achieved; and

14 (10) pre-mining baseline data as required by
15 regulations adopted by the commission;

16 J. adopt regulations to coordinate the roles of
17 permitting agencies involved in regulating activities related
18 to new and existing mining operations and exploration,
19 including regulatory requirements, to avoid duplicative and
20 conflicting administration of the permitting process and other
21 requirements;

22 K. except for regulations enacted pursuant to
23 Subsection L of this section, adopt regulations that ensure
24 that the public and permitting agencies receive notice of each
25 application for issuance, renewal or revision of a permit for a

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1 new or existing mining operation, for standby status, or
2 exploration, a variance or an application for release of
3 financial assurance and any inspection prior to the release of
4 financial assurance, including a provision that no action shall
5 be taken on any application until an opportunity for a public
6 hearing, held in the locality of the operation, is provided and
7 that all interested persons shall be given a reasonable chance
8 to submit data, views or arguments orally or in writing and to
9 examine witnesses testifying at the hearing. An additional
10 opportunity for a public hearing may be provided if the
11 applicant makes substantial changes in the proposed action, if
12 there are significant new circumstances or information bearing
13 on the proposed action or if the applicant proposes to
14 substantially increase the scale or substantially change the
15 nature of the proposed action and there is public interest and
16 a request for a public hearing. These regulations shall
17 require at a minimum that the applicant for issuance, renewal
18 or revisions of a permit or a variance or an application for
19 release of financial assurance and any inspection prior to
20 release of financial assurance shall provide to the director at
21 the time of filing the application with the director proof that
22 notice of the application and of the procedure for requesting a
23 public hearing has been:

24 (1) provided by certified mail to the owners
25 of record, as shown by the most recent property tax schedule,

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1 of all properties within one-half mile of the property on which
2 the mining operation is located or is proposed to be located;

3 (2) provided by certified mail to all
4 municipalities and counties within a ten-mile radius of the
5 property on which the mining operation is or will be located;

6 (3) published once in a newspaper of general
7 circulation in each county in which the property on which the
8 mining operation is or will be located; provided that this
9 notice shall appear in either the classified or legal
10 advertisements section of the newspaper and at one other place
11 in the newspaper calculated to give the general public the most
12 effective notice and, when appropriate, shall be printed in
13 both English and Spanish;

14 (4) posted in at least four publicly
15 accessible and conspicuous places, including the entrance to
16 the new or existing mining operation if that entrance is
17 publicly accessible and conspicuous;

18 (5) mailed to all persons who have made a
19 written request to the director for notice of this application;
20 and

21 (6) mailed by certified mail to all persons on
22 a list maintained by the director of individuals and
23 organizations who have requested notice of applications under
24 [~~this~~] the New Mexico Mining Act. If the application is
25 determined to be administratively complete by the director, the

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1 applicant shall provide to the director timely proof that
2 notice of that determination has been provided by first class
3 mail to everyone who has indicated to the applicant in writing
4 that they desire information regarding the application and to a
5 list maintained by the director of individuals and
6 organizations who have requested notice of applications under
7 this act;

8 L. adopt regulations to provide for permits,
9 without notice and hearing, to address mining operations that
10 have minimal impact on the environment; provided that such
11 permits shall require general plans and shall otherwise reduce
12 the permitting requirements of the New Mexico Mining Act;

13 M. establish by regulation a schedule of annual
14 administrative and permit fees, which shall equal and not
15 exceed the estimated costs of administration, implementation,
16 enforcement, investigation and permitting pursuant to the
17 provisions of the New Mexico Mining Act. The size of the
18 operation, anticipated inspection frequency and other factors
19 deemed relevant by the commission shall be considered in the
20 determination of the fees. The fees established pursuant to
21 this subsection shall be deposited in the mining act fund;

22 N. establish by regulation a continuing process of
23 review of mining and reclamation practices in New Mexico that
24 provides for periodic review and amendment of regulations and
25 procedures to provide for the protection of the environment and

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1 consider the economic effects of the regulations;

2 O. adopt regulations governing the provision of
3 variances issued by the director, stating the procedures for
4 seeking a variance, including provisions for public notice and
5 an opportunity for a hearing in the locality where the variance
6 will be operative, the limitations on provision of variances,
7 requiring the petitioner to present sufficient evidence to
8 prove that failure to grant a variance will impose an undue
9 economic burden and that granting the variance will not result
10 in a significant threat to human health, safety or the
11 environment;

12 P. provide by regulation that, prior to the
13 issuance of any permit for a new mining operation pursuant to
14 the provisions of the New Mexico Mining Act, the permit
15 applicant or operator:

16 (1) shall provide evidence to the director
17 that other applicable state and federal permits required to be
18 obtained by the new or existing mining operation either have
19 been or will be issued before the activities subject to those
20 permits begin; and

21 (2) shall provide to the director a written
22 determination from the secretary of environment stating that
23 the permit applicant has demonstrated that the activities to be
24 permitted or authorized will be expected to achieve compliance
25 with all applicable air and water quality and other

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1 environmental standards if carried out as described;

2 Q. require by regulation that the applicant file
3 with the director, prior to the issuance of a permit, financial
4 assurance. The amount of the financial assurance shall be
5 sufficient to assure the completion of the performance
6 requirements of the permit, including closure and reclamation,
7 if the work [~~had~~] has to be performed by the director or a
8 third-party contractor and shall include periodic review to
9 account for any inflationary increases and anticipated changes
10 in reclamation or closure costs. The regulations shall specify
11 that financial requirements shall neither duplicate nor be less
12 comprehensive than the federal financial requirements. The
13 form and amount of the financial assurance shall be subject to
14 the approval of the director as part of the permit application;
15 provided that financial assurance does not include any type or
16 variety of self-guarantee or self-insurance;

17 R. require by regulation that the permittee may
18 file an application with the director for the release of all or
19 part of the permittee's financial assurance. [~~The permittee~~
20 ~~shall not file an application for release of financial~~
21 ~~assurance more than once per year for each mining operation.~~]
22 The application shall describe the reclamation measures
23 completed and shall contain an estimate of the costs of
24 reclamation measures that have not been completed. Prior to
25 release of any portion of the permittee's financial assurance,

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1 the director shall conduct an inspection and evaluation of the
2 reclamation work involved. The director shall notify persons
3 who have requested advance notice of the inspection.

4 Interested members of the public shall be allowed to be present
5 at the inspection of the reclamation work by the director.

6 (1) The director may release in whole or in
7 part the financial assurance if the reclamation covered by the
8 financial assurance has been accomplished as required by the
9 New Mexico Mining Act; provided that the director shall retain
10 financial assurance at least equal to the approved estimated
11 costs of completing reclamation measures that have not been
12 completed; and provided further that for revegetated areas, the
13 director shall retain the amount of financial assurance
14 necessary for a third party to reestablish vegetation for a
15 period of twelve years after the last year of augmented
16 seeding, fertilizing, irrigation or other work, unless a post-
17 mining land use is achieved that is inconsistent with the
18 further need for revegetation. For new mining operations only,
19 no part of the financial assurance necessary for a third party
20 to reestablish vegetation shall be released so long as the
21 lands to which the release would be applicable are contributing
22 suspended solids above background levels to streamflow of
23 intermittent and perennial streams.

24 (2) A person with an interest that is or will
25 be adversely affected by release of the financial assurance may

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1 file, with the director within thirty days of the date of the
2 inspection, written objections to the proposed release from
3 financial assurance. If written objections are filed and a
4 hearing is requested, the director shall inform all the
5 interested parties of the time and place of the hearing at
6 least thirty days in advance of the public hearing, and hold a
7 public hearing in the locality of the new or existing mining
8 operation or exploration operation proposed for release from
9 financial assurance. The date, time and location of the public
10 hearing shall be advertised by the director in a newspaper of
11 general circulation in the locality for two consecutive weeks,
12 and all persons who have submitted a written request in advance
13 to the director to receive notices of hearings shall be
14 provided notice at least thirty days prior to the hearing;

15 S. establish coordinated procedures that avoid
16 duplication for the inspection, monitoring and sampling of air,
17 soil and water and enforcement of applicable requirements of
18 the New Mexico Mining Act, regulations adopted pursuant to that
19 act and permit conditions for new and existing mining
20 operations and exploration. The regulations shall require, at
21 a minimum:

22 (1) inspections by the director occurring on
23 an irregular basis according to the following schedule:

24 (a) at least one inspection per month
25 when the mining operation is conducting significant reclamation

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1 activities;

2 (b) at least two inspections per year
3 for active mining operations;

4 (c) at least one inspection per year on
5 inactive sites;

6 (d) at least one inspection per year
7 following completion of all significant reclamation activities,
8 but prior to release of financial assurance; and

9 (e) mining operations having a minimal
10 impact on the environment and exploration operations will be
11 inspected on a schedule to be established by the commission;

12 (2) inspections shall occur without prior
13 notice to the permittee or [~~his~~] the permittee's agents or
14 employees except for necessary on-site meetings with the
15 permittee;

16 (3) when the director determines that a
17 condition or practice exists that violates a requirement of the
18 New Mexico Mining Act, a regulation adopted pursuant to that
19 act or a permit issued under that act, which condition,
20 practice or violation also creates an imminent danger to the
21 health or safety of the public or will cause significant
22 imminent environmental harm, the director shall immediately
23 order a cessation of the new or existing mining operation or
24 the exploration operation or the portion of that operation
25 relevant to the condition, practice or violation. The

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1 cessation order shall remain in effect until the director
2 determines that the condition, practice or violation has been
3 abated or until modified, vacated or terminated by the director
4 or the commission;

5 (4) when the director determines that an owner
6 or operator is in violation of a requirement of the New Mexico
7 Mining Act, a regulation adopted pursuant to that act or a
8 permit issued pursuant to that act but the violation does not
9 create an imminent danger to the health or safety of the public
10 or will not cause significant imminent environmental harm, the
11 director shall issue a notice to the owner or operator fixing a
12 reasonable time, not to exceed sixty days, for the abatement of
13 the violation. If, upon expiration of the period of time as
14 originally fixed or subsequently extended for good cause shown,
15 the director finds that the violation has not been abated, ~~[he]~~
16 the director shall immediately order a cessation of new or
17 existing mining operations or exploration operations or the
18 portion thereof relevant to the violation. The cessation order
19 shall remain in effect until the director determines that the
20 violation has been abated; and

21 (5) when the director determines that a
22 pattern of violations of the requirements of the New Mexico
23 Mining Act or of the regulations adopted pursuant to that act
24 or the permit required by that act exists or has existed and,
25 if the director also finds that such violations are caused by

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1 the unwarranted failure of the owner or operator to comply with
2 the requirements of that act, regulation or permit or that such
3 violations are willfully caused by the owner or operator, the
4 director shall immediately issue an order to the owner or
5 operator to show cause as to why the permit should not be
6 suspended or revoked;

7 T. provide for the transfer of a permit to a
8 successor operator, providing for release of the first operator
9 from obligations under the permit, including financial
10 assurance, following the approved assumption of such
11 obligations and financial assurance by the successor operator;

12 U. adopt regulations providing that the owner or
13 operator of an existing mining operation or a new mining
14 operation who has completed some reclamation measures prior to
15 the effective date of the regulations adopted pursuant to the
16 New Mexico Mining Act may apply for an inspection of those
17 reclamation measures and a release from further requirements
18 pursuant to that act for the reclaimed areas if, after an
19 inspection, the director determines that the reclamation
20 measures satisfy the requirements of that act and the
21 substantive requirements for reclamation pursuant to the
22 applicable regulatory standards; and

23 V. develop and adopt other regulations necessary
24 and appropriate to carry out the purposes and provisions of the
25 New Mexico Mining Act. Pursuant to the financial assurance

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1 provision found in Subsection R of this section, the director
2 shall propose a new set of regulations consistent with that
3 subsection for the commission's consideration on or before
4 January 13, 2015."

5 SECTION 3. EMERGENCY.--It is necessary for the public
6 peace, health and safety that this act take effect immediately.