New Mexico Legislature

WATER AND NATURAL RESOURCES COMMITTEE

2015 INTERIM FINAL REPORT

Legislative Council Service
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Water and Natural Resources Committee
2015 Interim Summary

The Water and Natural Resources Committee (WNRC) was created by the New Mexico Legislative Council for the 2015 interim and scheduled five meetings, held in Santa Fe, Taos, Silver City and Ruidoso Downs.

Historically, the committee has worked closely with New Mexico's water managers each year, receiving updates throughout the interim. Tom Blaine, state engineer, and Deborah Dixon, director, Interstate Stream Commission (ISC), provided the committee with an initial update on the activities of their respective offices and New Mexico's water resources at the committee's June meeting. David DuBois, state climatologist, and Ms. Dixon provided the committee with an update on drought status and reservoir levels across the state at the committee's July meeting. Mr. Blaine updated the committee on the implementation of Active Water Resource Management at the committee's November meeting. Representatives from the Office of the State Engineer (OSE) provided the committee with updates regarding various OSE initiatives at a number of meetings, including water leasing procedures, interbasin water transfers, administrative permit applications and implementation of Active Water Resource Management.

Over the 2015 interim, the committee also devoted time to Indian water rights settlements. In July, the committee heard from a number of stakeholders in the Taos Pueblo Indian water rights settlement, most of whom agreed that decades of negotiation and compromises made by all involved parties had produced a workable settlement that everyone could live with. In November, the committee heard testimony regarding the Aamodt settlement. In contrast to the Taos settlement, some stakeholders in the Aamodt settlement voiced concerns about the outcome.

The committee also heard presentations regarding a number of studies conducted on New Mexico's water resources. In July, the committee heard from a group studying vulnerabilities in New Mexico's water supply. In October, the committee heard testimony regarding a project to map aquifers and study hydrogeology from regional to watershed scales.

For the past several years, the committee has received testimony regarding the Arizona Water Settlements Act. At its September meeting in Silver City, the committee devoted most of one day to the issue, hearing from ISC staff on potential water projects in the area as well as from opponents of any project that might divert water from the Gila River or its tributaries.

On August 5, 2015, federal Environmental Protection Agency workers, using heavy equipment to enter the Gold King mine in southern Colorado, accidentally sprung a large leak, releasing millions of gallons of mustard-colored water, contaminated with heavy metals, into the Animas River. The water moved into New Mexico, causing problems for those who depend on the river in northeastern New Mexico. In September, the committee heard from various state agencies and stakeholders about New Mexico's response to the spill.

In addition to water issues, the committee received testimony on other topics, including natural resources, livestock, wildlife and utilities. In July, the committee heard presentations regarding utility company renewable energy programs, electricity rates and utility infrastructure. The committee also received testimony regarding the decoupling of utility rates. In October, the committee heard from the Department of Game and Fish regarding elk, antelope and deer populations. The committee also received an update from the oil and gas industry at its October meeting.

During the 2015 regular legislative session, a bill authorizing the creation of a trail along the Rio Grande, from Colorado to Texas, was passed by the legislature and signed by the governor. In November, the committee received an update from the commission formed to identify trail alignment, facilitate negotiations with landowners and define facilities and enhancements.

Another bill, passed by the legislature but vetoed by the governor, addressed forest and watershed restoration. The various stakeholders involved with drafting the legislation provided the committee with an update on the ongoing effort to address and fund forest and watershed restoration efforts.

The committee endorsed four pieces of legislation:

- a bill appropriating funding for ground water mapping;
- a bill appropriating funding for boll weevil and pink bollworm monitoring;
- a bill authorizing research of industrial hemp; and
- a bill allowing landowner compensation for big game depredation.

WORK PLAN AND MEETING SCHEDULE

2015 APPROVED
WORK PLAN AND MEETING SCHEDULE
for the
WATER AND NATURAL RESOURCES COMMITTEE

Members

Sen. Peter Wirth, Chair
Rep. Candy Spence Ezzell, Vice Chair
Rep. Paul C. Bandy
Sen. Joseph Cervantes
Rep. Randal S. Crowder
Rep. Dona G. Irwin
Rep. James Roger Madalena
Rep. Javier Martinez
Rep. Matthew McQueen
Rep. Andy Nunez
Sen. Cliff R. Pirtle
Sen. Sander Rue
Sen. Benny Shendo, Jr.
Rep. Jeff Steinborn
Sen. Mimi Stewart
Rep. James R.J. Strickler
Sen. Pat Woods

Advisory Members

Sen. Ted Barela
Rep. Cathrynn N. Brown
Sen. Pete Campos
Sen. Carlos R. Cisneros
Rep. Sharon Clahchischilliage
Sen. Lee S. Cotter
Rep. George Dodge, Jr.
Rep. Brian Egolf
Rep. Nora Espinoza
Rep. David M. Gallegos
Rep. Bealquin Bill Gomez
Sen. Ron Griggs
Rep. Jimmie C. Hall
Sen. Stuart Ingle
Rep. D. Wonda Johnson
Sen. Gay G. Kernan
Rep. Larry A. Larrañaga
Sen. Carroll H. Leavell
Rep. Tim D. Lewis
Rep. Rick Little
Sen. Linda M. Lopez
Rep. Stephanie Maez
Rep. Bill McCamley
Sen. Cisco McSorley
Sen. Steven P. Neville
Sen. Gerald Ortiz y Pino
Sen. Mary Kay Papen
Sen. Nancy Rodriguez
Rep. G. Andres Romero
Sen. John C. Ryan
Rep. Tomás E. Salazar
Sen. William E. Sharer
Sen. John Arthur Smith
Rep. James G. Townsend
Rep. Don L. Tripp
Rep. Bob Wooley
Rep. John L. Zimmerman

Work Plan

The Water and Natural Resources Committee was created by the New Mexico Legislative Council on April 27, 2015. The committee proposes 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. New Mexico Universities Working Group water supply vulnerabilities study final report;

c. active water resource management implementation and water banking;

d. Gila River planning process and projects (federal Arizona Water Settlements Act of 2004);

e. acequia issues and concerns;

f. state and regional water plans update process;

g. long-term financing of forest and watershed treatment and restoration and forest health;

h. report on the Mid-Rio Grande Levee Task Force's study of the Rio Grande levees within Valencia, Bernalillo and Sandoval counties;

i. water project financing programs and process;

j. regional water authorities;

k. water leasing process requirements;

l. water adjudications and the Taos (Abeyta) water rights settlement;

m. determination of amount of water allowed for replacement and supplemental wells;

n. drought update/reservoir levels/seasonal outlook;

o. water litigation update;

p. protestant standing in water rights hearings;

q. inter-basin water transfers;

r. Middle Rio Grande Conservancy District briefing; and

s. Chaco Canyon landscape protection.

2. Agriculture, land use, natural resource and game and fish issues, including:

    a. renewable energy production, electric utility infrastructure and solar energy issues;

    b. subdivision approval and water source requirements;

    c. Department of Game and Fish update/mule deer/bear/cougar/elk populations;

    d. Kirtland Air Force Base fuel spill cleanup update; and

    e. agricultural hemp production.

Water and Natural Resources Committee
2015 Approved Meeting Schedule

Date	Location
June 1	Santa Fe
July 27-28	Taos
August 31-September 1	Silver City
October 15-16	Ruidoso
November 5-6	Santa Fe

AGENDAS AND MINUTES

TENTATIVE AGENDA
for the
FIRST MEETING IN 2015
of the
WATER AND NATURAL RESOURCES COMMITTEE

June 1, 2015
Room 307, State Capitol
Santa Fe

Monday, June 1

9:30 a.m.		**Call to Order and Introductions** —Senator Peter Wirth, Chair, Water and Natural Resources Committee
9:35 a.m.	(1)	**Overview of New Mexico Water Law** —Reed Benson, Professor, University of New Mexico School of Law —David Benavides, New Mexico Legal Aid
11:00 a.m.	(2)	**Status Report — Office of the State Engineer** —Tom Blaine, State Engineer (invited)
12:00 noon		**Discussion of 2015 Interim Work Plan and Meeting Schedule** —Committee Members
12:30 p.m.		**Adjourn**

MINUTES
of the
FIRST MEETING
of the
WATER AND NATURAL RESOURCES COMMITTEE

June 1, 2015
Room 307, State Capitol
Santa Fe

The first meeting of the Water and Natural Resources Committee was called to order on Monday, June 1, 2015, in Room 307 of the State Capitol by Senator Peter Wirth, chair.

Present
Sen. Peter Wirth, Chair
Rep. Paul C. Bandy
Sen. Joseph Cervantes
Rep. Randal S. Crowder
Rep. James Roger Madalena
Rep. Javier Martinez
Rep. Matthew McQueen
Rep. Andy Nunez
Sen. Cliff R. Pirtle
Sen. Sander Rue
Sen. Benny Shendo, Jr.
Rep. Jeff Steinborn
Sen. Pat Woods

Absent
Rep. Candy Spence Ezzell, Vice Chair
Rep. Dona G. Irwin
Sen. Mimi Stewart
Rep. James R.J. Strickler

Advisory Members
Sen. Ted Barela
Sen. Carlos R. Cisneros
Sen. Lee S. Cotter
Rep. Nora Espinoza
Rep. Bealquin Bill Gomez
Sen. Ron Griggs
Rep. Jimmie C. Hall
Rep. Larry A. Larrañaga
Rep. Tim D. Lewis
Sen. Linda M. Lopez
Rep. Bill McCamley
Sen. Cisco McSorley
Sen. Gerald Ortiz y Pino
Sen. Mary Kay Papen
Sen. Nancy Rodriguez
Rep. Cathrynn N. Brown
Sen. Pete Campos
Rep. Sharon Clahchischilliage
Rep. George Dodge, Jr.
Rep. Brian Egolf
Rep. David M. Gallegos
Sen. Stuart Ingle
Rep. D. Wonda Johnson
Sen. Gay G. Kernan
Rep. Rick Little
Sen. Carroll H. Leavell
Rep. Stephanie Maez
Sen. Steven P. Neville
Sen. William E. Sharer
Sen. John Arthur Smith

Rep. G. Andres Romero
Sen. John C. Ryan
Rep. Tomás E. Salazar
Rep. Don L. Tripp
Rep. James G. Townsend
Rep. Bob Wooley
Rep. John L. Zimmerman

Staff
Jon Boller, Legislative Council Service (LCS)
Gordon Meeks, LCS
Diego Jimenez, 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.

Monday, June 1

Call to Order and Introductions
Senator Wirth began by having members of the committee and staff introduce themselves.

Overview of New Mexico Water Law
Reed Benson, professor, University of New Mexico School of Law, summarized the basic tenets of New Mexico water law for the committee, including explanations of the prior appropriation doctrine, beneficial use, surface and ground water management, federal reserved rights, interstate compacts and adjudications. David Benavides, New Mexico Legal Aid, reviewed the law and policies governing the transfer of water rights within and outside of the state, noting that existing users are often under increasing pressure to sell and transfer their water rights to other areas and uses in the state, given that the surface waters of the state are already fully appropriated.

Questions and answers from committee members included the following:
- the difference between "Winters Doctrine" federal reserved rights and pueblo rights and the effect on their respective priority dates and quantification; and
- whether the Indian nations, tribes and pueblos of the state could claim all of the water in the state, and whether that is one reason the state entered into settlement agreements.

Status Report — Office of the State Engineer

Deborah Dixon, director of the Interstate Stream Commission (ISC), introduced herself and noted that she began serving as director on March 16, 2015 after spending over 30 years as a professional engineer in the private sector.

Tom Blaine, state engineer, began by saying that no one in New Mexico is untouched by the Office of the State Engineer (OSE) and that water issues long predate statehood. He explained that New Mexico statutes require the OSE to consider impairment of existing water rights, conservation of water and public welfare of the state when evaluating applications for changes to an existing water right, and that when considering the public welfare of the state, the OSE could not just consider the public welfare of one region of the state. Favoring one region over another, he indicated, would open the door to politics in the approval process. Mr. Blaine also outlined several issues that the OSE is currently dealing with, stating that:

- it is very important that the legislature appropriate the remaining $12.7 million of the state's cost share for implementation of the Taos settlement before the end of the fiscal year;
- he is planning to issue district-specific active water resource management rules this year for one or more water districts and is currently conducting outreach to stakeholders in the lower Rio Grande area;
- the OSE is defending the state's right to administer its waters in the *Texas v. New Mexico* case;
- he hopes to find ways to streamline the adjudications process in conjunction with the courts;
- he wants to streamline the permitting process by ensuring that applications are reviewed for completeness within 10 days of submittal and reduce the backlog of permit applications by 50 percent by the end of the year; and
- he would like the state to quantify the amount of ground water in the state, and he will let the legislature know the amount of the appropriation that will be needed to accomplish this.

Ms. Dixon updated the committee on the state and regional water planning process, noting that she will be meeting with representatives from all of the regions this summer. She said that steering committees are being reestablished in each region and that the ISC wants to integrate the regional plans into the state plan by establishing a common technical platform, including estimates of population, water supply and water demand for each region. Each region would then be asked to develop programs and policy goals for its respective regions, with draft plans ready by late fall, she said.

Comments and questions from committee members included:

- whether recreational use is recognized as a beneficial use of water under state law;
- that the OSE is evaluating whether domestic and livestock wells can be adjudicated separately from other surface and ground water rights;

- whether the legislature should earmark some of the $70 million in gaming revenue to fund the state's share of Indian water rights settlements; and
- what directions, if any, has the state engineer received from the governor.

2015 Committee Work Plan

The committee discussed a work plan for the interim and proposed to meet in Santa Fe, Taos, Silver City and Ruidoso.

The committee adjourned at 12:30 p.m.

Revised: July 23, 2015

TENTATIVE AGENDA
for the
SECOND MEETING IN 2015
of the
WATER AND NATURAL RESOURCES COMMITTEE

July 27-28, 2015
University of New Mexico-Taos
Rio Grande Hall, 120 Civic Plaza Drive
Taos

Monday, July 27

9:30 a.m. **Call to Order and Welcome**
—Dr. Kate O'Neill, Executive Director, University of New Mexico (UNM)-Taos (invited)

9:45 a.m. (1) **Drought Status, Reservoir Levels, Outlook**
—David Dubois, State Climatologist
—Deborah Dixon, Director, Interstate Stream Commission

10:30 a.m. (2) **Water Supply Vulnerabilities Study**
—J. Phillip King, Civil Engineering Department, New Mexico State University
—Peggy Johnson, New Mexico Bureau of Geology and Mineral Resources, New Mexico Institute of Mining and Technology
—Janie Chermak, Department of Economics, UNM
—Shaleene Chavarria, Student, UNM

12:30 p.m. **Lunch**

1:30 p.m. (3) **Taos Settlement Update — Funding and Implementation**
—Arianne Singer, Office of the State Engineer
—Gilbert Suazo, Water Resources Specialist, Pueblo of Taos
—Nelson Cordova, Water Rights Coordinator, Pueblo of Taos
—Floyd Lopez, Town Attorney, Taos
—Mary Humphrey, Attorney, Mutual Domestic Water Consumers Associations
—Rebecca Dempsey, Attorney, Taos Valley Acequia Association

3:30 p.m. (4) **Kit Carson Electric Cooperative Renewable Energy Program**
—Luis Reyes, Chief Executive Officer, Kit Carson Electric Cooperative, Inc.

4:15 p.m. **Tour of Solar Facilities (tentative)**

5:00 p.m. **Recess**

Tuesday, July 28

9:00 a.m. (5) **Renewables, Rates and Electric Utility Infrastructure**
—Jon Hawkins, Public Service Company of New Mexico
—Keven Groenewold, New Mexico Rural Electric Cooperative Association
—Regina Wheeler, Positive Energy Solar

10:15 a.m. (6) **Decoupling and Integrating New Technology into the Grid**
—Noah Long, Natural Resources Defense Council
—Steve Bukowski, El Paso Electric

11:15 a.m. (7) **Protestant Standing in Water Rights Hearings**
—Jim Brockmann, Attorney
—Connie Odé, Attorney
—Paula Garcia, New Mexico Acequia Association

12:15 p.m. **Adjourn**

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

July 27-28, 2015
University of New Mexico-Taos
Rio Grande Hall, 120 Civic Plaza Drive
Taos

The second meeting of the Water and Natural Resources Committee was called to order by Senator Peter Wirth, chair, on July 27, 2015 at 9:30 a.m. at the Rio Grande Hall in Taos.

Present
Sen. Peter Wirth, Chair
Rep. Candy Spence Ezzell, Vice Chair
Rep. Paul C. Bandy
Sen. Joseph Cervantes
Rep. Randal S. Crowder
Rep. Dona G. Irwin
Rep. James Roger Madalena
Rep. Javier Martinez
Rep. Matthew McQueen
Rep. Andy Nunez
Sen. Cliff R. Pirtle
Sen. Benny Shendo, Jr. (7-27)
Sen. Mimi Stewart
Rep. James R.J. Strickler
Sen. Pat Woods

Absent
Sen. Sander Rue
Rep. Jeff Steinborn

Advisory Members
Sen. Ted Barela (7-27)
Sen. Carlos R. Cisneros
Rep. Sharon Clahchischilliage
Sen. Lee S. Cotter (7-27)
Rep. Nora Espinoza
Rep. David M. Gallegos
Rep. Bealquin Bill Gomez
Sen. Ron Griggs
Rep. Jimmie C. Hall
Rep. Larry A. Larrañaga
Sen. Linda M. Lopez (7-27)
Rep. Bill McCamley
Sen. Cisco McSorley
Rep. Cathrynn N. Brown
Sen. Pete Campos
Rep. George Dodge, Jr.
Rep. Brian Egolf
Sen. Stuart Ingle
Rep. D. Wonda Johnson
Sen. Gay G. Kernan
Sen. Carroll H. Leavell
Rep. Tim D. Lewis
Rep. Rick Little
Rep. Stephanie Maez
Sen. Steven P. Neville
Sen. Mary Kay Papen

Sen. Gerald Ortiz y Pino
Sen. Nancy Rodriguez
Rep. G. Andres Romero
Sen. John C. Ryan
Rep. Tomás E. Salazar
Rep. Bob Wooley (7-27)
Rep. John L. Zimmerman
Sen. William E. Sharer
Sen. John Arthur Smith
Rep. James G. Townsend
Rep. Don L. Tripp

Guest Legislator
Rep. Roberto "Bobby" J. Gonzales (7-28)

(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
Erin Bond, LCS

Guests
The guest list is in the 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.

Monday, July 27

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

Mario Suazo of the University of New Mexico (UNM)-Taos welcomed the committee to Taos and thanked the committee for coming. He provided the committee with a brief history and overview of UNM-Taos, noting that the school had recently purchased the civic center from the Town of Taos and will use the facility to house several health-related school programs.

Drought Status, Reservoir Levels, Outlook
David Dubois, state climatologist, provided the committee with an overview of New Mexico's drought status. He reviewed precipitation levels and temperatures for the past year, noting that while precipitation numbers suggest that the first half of 2015 has been unusually wet (the fourth-wettest on record for the first six months of the year), snowpack amounts have been relatively low, and in the northern and western mountains, temperatures have been above normal. Dr. Dubois explained that the low snowpack has been offset by higher-than-average rainfall in

many areas of the state. He went on to note that New Mexico's drought status has seen much improvement over the past two years, pointing out that the U.S. Drought Monitor classified over 93 percent of New Mexico under extreme or exceptional drought in 2013, while zero percent of the state was suffering that level of drought as of July 2015. Dr. Dubois cautioned that there had been some extreme precipitation in New Mexico recently, pointing to hail storms near Hatch and dust storms west of Las Cruces as examples. Finally, Dr. Dubois discussed the precipitation outlook for the rest of 2015, noting that tropical storm systems have helped contribute to New Mexico's increased precipitation and could continue to do so. He also said that the coming winter features a strong El Niño outlook, which usually suggests above-average snowfall.

Deborah Dixon, director, Interstate Stream Commission (ISC), provided the committee with a brief overview of the ISC, noting that the commission primarily focuses on New Mexico complying with 80 interstate water compacts. She also reviewed the major interstate water compacts to which New Mexico is party. Ms. Dixon went on to discuss issues related to drought conditions on the Colorado River, particularly how they affect California. She pointed out that California prematurely declared an end to the drought a few years ago and is now facing severe drought conditions that are forcing state water managers to take unprecedented steps to cut water use across the state. Ms. Dixon also discussed water levels in New Mexico's reservoirs, providing the committee with data regarding how full each reservoir was last year, how full each currently is and how much change each reservoir level has undergone over the past month. She also discussed reservoir levels in New Mexico basin-by-basin, providing the committee with data regarding each reservoir's level over the past 10 years. Finally, Ms. Dixon discussed water conditions in the Colorado River Basin, noting water levels in Lake Powell and Lake Mead. She also provided the committee with water level projection data for both lakes, noting that declining water levels, particularly at Lake Mead, are trending from the low end of normal conditions to shortage conditions.

Questions and comments from the committee included the following:

- the ISC will be holding a public meeting in August on issues related to its application for water on the Canadian River to listen to the concerns of area stakeholders;
- average rainfall is determined by combining observations of individual weather stations over many years;
- regional water plans, and eventually the state water plan, are in the process of being updated;
- Texas negotiated with New Mexico to hold additional water in Brantley Reservoir, and evaporative losses were accounted for in negotiations;
- New Mexico is entitled to about 11.25 percent of upper Colorado River Basin runoff, but the amount of water the state can consume from the Gila River (which is part of the lower Colorado River Basin) is yet to be determined by the Arizona Water Settlements Act and New Mexico's potential development of Gila River water;
- water levels in Lake Mead and Lake Powell may dictate operations in the upper Colorado River Basin if the upper basin states are required to deliver an average of 8.3

million acre-feet per year to the lower Colorado River Basin states, rather than just to refrain from diverting more than the percentage of flows allocated to the upper basin states in times of shortage;
- El Niño weather pattern is driven by Pacific Ocean water temperatures;
- the status of litigation on the lower Rio Grande;
- New Mexico entities receive Colorado River water via the San Juan/Chama project and have historically kept enough water in reservoirs to deliver the full amount allotted to each entity, but 2015 could be the first year that less than the full allotment is delivered;
- whether the U.S. Bureau of Reclamation will again release New Mexico's credit water stored in Elephant Butte Reservoir without the state's permission;
- the involvement of stakeholder groups in the development of regional water plans; and
- regional water plans should be completed by July 2016.

Water Supply Vulnerabilities Study

J. Phillip King, Civil Engineering Department, New Mexico State University, began by providing the committee with an overview of water and agricultural operations below Elephant Butte Reservoir, noting that the Elephant Butte Irrigation District (EBID) has increased the amount of surface water allotted to New Mexico irrigators to 11 inches per acre this year, up from less than three inches last year. He noted that Hatch Valley water users will be shut off at the end of the month, Mesilla users in mid-August, Mexico users in mid-September and El Paso users in mid-October.

Shaleene Chavarria, a student at UNM, began by providing the committee with data on snowpack levels across the western United States in spring 2015, noting that the basins that supply runoff to rivers in New Mexico are all reported to be less than 75 percent of the long-term average snowpack. She also discussed Rio Grande streamflow at the Otowi gauge from January through May, pointing out the decline in streamflow from March to May. Ms. Chavarria went on to compare the current drought in New Mexico with one occurring in the 1950s, noting that the current drought does not appear to be as severe as the one in the 1950s with regard to precipitation; however, temperature averages have been two to three degrees higher during the current drought. She also discussed streamflow forecast data, noting that errors in streamflow forecasts over the past few years have tended to overestimate predicted flow.

Peggy Johnson, New Mexico Bureau of Geology and Mineral Resources, New Mexico Institute of Mining and Technology, provided the committee with data regarding ground water vulnerabilities during drought. She began by discussing ground water withdrawals and depletions in Dona Ana County over the past 25 years, noting that about two-thirds of pumped ground water is actually depleted. Ms. Johnson also discussed geology as it relates to ground water in the lower Rio Grande Valley, noting the differences between the Rincon Basin, below Caballo Dam, and Mesilla Basin, closer to Las Cruces. She pointed out that the thick productive aquifer that exists in the Mesilla Basin is absent in the Rincon Basin, which suggests that most of the ground water is in the Mesilla Basin, especially near the Texas border. Ms. Johnson also

discussed how drought has affected ground water pumping in the Mesilla Valley since the 1950s drought. She showed the committee how pumping during the 1950s drew the aquifer down, while El Niño weather patterns after the drought recharged the aquifer somewhat. Ms. Johnson also showed the committee graphs showing that while ground water pumping during the 1990s followed a relatively predictable pattern of withdrawal and recharge, subsequent years have shown steady decline in aquifer levels and less predictable recharge patterns.

Janie Chermak, Department of Economics, UNM, provided the committee with additional testimony regarding the water supply vulnerabilities study. She began by noting that while recent precipitation may have restored a sense of optimism in the lower Rio Grande, the area has been plagued by drought for most of the last decade. She also noted that while the 1950s drought was worse in terms of precipitation deficit, higher temperatures and increases in consumption have made the effects of the current drought worse. Ms. Chermak went on to explain how drought conditions have a compound effect on both surface and ground water supplies, noting that surface flows are the largest source of ground water recharge and that reduced surface flows and the corresponding increase in ground water pumping to make up for shortages mean that current depletions will likely outpace the system's ability to provide an adequate water supply. She also pointed out that agriculture has historically been a huge component of the lower Rio Grande's economy; the industry is growing increasingly inflexible and unable to manage water shortages. Ms. Chermak recommended bringing water supply and demand into better balance; better integrating the management of surface and ground water; investigating means of reducing ground water pumping and artificially enhancing ground water recharge; and improving irrigation water management and conservation.

Dr. King concluded the presentation by emphasizing that the drought is not over yet and that the ground water deficit issue is far from resolved. He noted that there are natural controls to ground water pumping, but they have dire consequences, such as wells going dry. Dr. King noted that solutions must be creative and that no single approach will be enough.

Questions and comments from the committee included the following:

- will ground water access gradually lessen;
- can New Mexico adopt artificial ground water recharge policies to avoid a situation similar to California's drought issues;
- capturing storm water for aquifer recharge does not come close to equaling the amount of water produced by snowpack;
- the inaccuracy of characterizing agriculture as using 80 percent of the water in New Mexico, and the difference between diversion of water and consumption;
- evaluation of water available in aquifers is difficult because it is impossible to remove 100 percent of the water in an aquifer;
- it is difficult to calculate the number of farmland acres fallowed by EBID farmers, as some farmers reduce the number of times they plant a crop on the same acre or plant different crops that demand less water;

- the difference between paper water rights and "wet" water rights;
- some water rights are for water with salinity too high to be of use;
- regulatory barriers to aquifer recharge;
- real-time transfer of ground water rights may allow land to be fallowed more effectively;
- continuing development of desalination technology versus the cost of treating water; and
- continuation of the water supply vulnerabilities study will require a $100,000 appropriation.

Taos Settlement Update — Funding and Implementation

Nelson Cordova, water rights coordinator for the Pueblo of Taos, began by explaining that the case that served as the foundation for the Taos water rights settlement brought up water-sharing issues that have existed in the Taos Valley for centuries. He also noted that tribes have historically not had a good relationship with the State of New Mexico but said that the Pueblo of Taos and other stakeholders, including the state, have tried to work out a settlement that is equitable for all Taos Valley water users. Mr. Cordova explained that the settlement process began with negotiations between the pueblo and acequia users, and he thanked Palemon Martinez of the Taos Valley Acequia Association for his role in bringing the pueblo and the acequias together. He also emphasized that while water rights settlements are not easy to negotiate, water users must all learn to live together.

Gilbert Suazo, water resources specialist for the Pueblo of Taos, explained that the settlement was a very complex process that began in 1969. He explained that all of the streams and rivers in the Taos Valley have been used by the pueblo at one point or another, but the pueblo has shared with non-Indian settlers over the years. Mr. Suazo noted that as disputes began to arise over use of water, agreements eventually developed. He pointed out that one of the keys to the current settlement is an area known as Buffalo Pasture, which he explained possesses strong cultural and spiritual significance for the pueblo. Mr. Suazo noted that Buffalo Pasture, which is a natural wetland, has also become important to non-native water users as it marks the beginning of the Taos green belt, an agriculturally fertile area. He said that protection of the pasture was difficult because of its complex hydrogeology and that several studies were conducted on how best to do so. Mr. Suazo closed by noting that in his testimony to Congress in support of the settlement, his theme was "Peace in the Valley".

Arianne Singer, Office of the State Engineer (OSE), thanked the legislature for its continued funding of the Taos settlement, noting that at this point, the state has met all of its funding obligations. She provided the committee with a summary of the settlement provisions, breaking them down into four categories:

- pueblo water rights, contract rights and forebearance;
- non-pueblo water right acquisitions and contract rights;
- a pueblo water development fund; and

- settlement-related projects and funding.

Ms. Singer noted that the settlement ensures the use of water for all Taos Valley users. She also discussed some of the funding issues for the settlement, explaining that money from the Tribal Infrastructure Project Fund (TIF) for the settlement had been authorized during the recently held special session. Ms. Singer also noted that the inter se process was under way, which provides parties a chance to voice objections to the settlement. She pointed out that federal funding is the last piece of the funding puzzle.

Floyd Lopez, town attorney, Taos, provided the committee with a time line for the settlement. He emphasized that the settlement is important to Taos, particularly because part of the settlement contains agreements by the pueblo to withdraw objections to some water rights transfers that have been pending since the 1990s. Mr. Lopez also discussed the use of settlement funds for new, deep wells to be drilled to offset the use of surface rights.

Mary Humphrey, an attorney representing 12 mutual domestic water consumers associations in the area, discussed the involvement of mutual domestic associations in negotiation of the settlement. She explained that a 2001 trial regarding the water rights of mutual domestic associations calculated the acre-feet differently for each mutual domestic association, but much of this issue has since been resolved by the settlement. Ms. Humphrey also noted that the settlement agreement addressed so-called "footprint transfers", which involve the transfer of water rights to mutual domestic associations. She said that the settlement has resolved many differences among the involved parties and has helped bring peace to the Taos Valley.

Rebecca Dempsey, an attorney representing the Taos Valley Acequia Association, explained that many of the oldest irrigators in the valley are right next to the pueblo and that disputes arose over whether some acequia uses actually predate some pueblo uses. She noted that it took decades to negotiate the settlement, but she added that it would most likely have taken longer to resolve all of the issues through litigation. Ms. Dempsey acknowledged that the settlement would not solve all of the Taos Valley's water problems, but she pointed out that it was never designed to do so. She also discussed some of the benefits of the settlement, including waivers of challenges to certain wells, waivers of protests to some water projects, establishment of clear duties for all Taos Valley water users and access for managers to acequias whose headgates are on tribal land.

Questions and comments from the committee included the following:

- $88 million of a projected $124 million in federal money for the settlement has already been received;
- $12.7 million was appropriated during the 2015 special session in order to meet the state's funding obligation deadline laid out in the settlement;
- water from the San Juan/Chama project offsets some of the settlement's impact on the Rio Grande;

- funding for mutual domestic associations is to purchase and retire water rights;
- some new wells in the area will be mitigation wells to offset some surface water rights;
- some funding indirectly benefits the Pueblo of Taos by resolving a long-standing dispute over water in the Rio Lucero;
- the OSE does not benefit from funds earmarked for settlement purposes;
- other pending settlements in New Mexico include the Aamodt and Navajo settlements;
- other pueblos negotiating with New Mexico include Ohkay Owingeh, Laguna and Zuni;
- parties began to negotiate more seriously with one another once they ran out of other options;
- mediators to help negotiate the settlement were paid through state and federal funds;
- $2 million of the $12.7 million appropriation for the settlement came from the TIF, which may affect funding available for other tribal projects;
- some of the money from the TIF was specifically for Buffalo Pasture infrastructure;
- several other tribes and pueblos, including Santa Clara, Zuni and Jemez, lost funding for projects because TIF money was used for the settlement; and
- shortage sharing agreements, particularly for nontraditional water uses, have been worked out as part of the settlement.

Kit Carson Electric Cooperative Renewable Energy Program

Luis Reyes, chief executive officer, Kit Carson Electric Cooperative, Inc., began by providing the committee with an overview of the cooperative, noting that it features propane and telecommunications divisions. He explained that its renewable energy program involves two phases: one voluntary, where consumers buy solar and wind power from market arrays, and a second, where investors build solar arrays and the cooperative buys power from them. Mr. Reyes noted that there are currently solar facilities in Questa, at the old Chevron Mine site, and another just west of that, and one in Mora, which provide almost all of the daytime electricity north of Questa. He pointed out that Kit Carson mostly services smaller-than-average residences that consume power for lights and computers, rather than for air conditioning and other high-power uses. Mr. Reyes also said that Kit Carson is trying to market its renewable energy program to other communities, such as Angel Fire, Red River and Tres Piedras. He also went on to discuss the cooperative's energy portfolio, noting that it is currently four percent solar and nine percent wind energy. Mr. Reyes also said that the cooperative is seeking approval for a solar array project on the Pueblo of Picuris, which he said the pueblo would own and which could serve 100 percent of the pueblo's needs but would transfer energy over Kit Carson's lines. He went on to note that solar energy is becoming more desirable for both the cooperative and consumers, as the cost of solar infrastructure continues to come down at the same time consumers want more control over their energy supply, particularly in a community like Taos, which is mostly poor but tends to have shared values regarding solar energy. Mr. Reyes said that renewable portfolio standards tend not to affect the cooperative's decision-making so much as consumers and numbers do, pointing out that the cooperative will meet its 2020 renewable standards early.

Questions and comments from the committee included the following:

- propane costs in New Mexico are unpredictable, so Kit Carson uses several markets, mostly in New Mexico, to buy propane year-round, store it and sell it at a stable, published price;
- Kit Carson does participate in the Low Income Home Energy Assistance Program, but many consumers use wood for heat, which makes accountability difficult;
- one 1.2-megawatt solar array serves about 900 homes;
- solar panel financing is easier and cheaper than it was five years ago;
- Kit Carson maintains its grid integrity on days without sun by interconnecting its grid with Public Service Company of New Mexico's (PNM's), which will not be a problem until Kit Carson's profile includes much more solar;
- the life cycle for a solar panel tends to be about 25 years, and Kit Carson is getting a longer cycle with better performance, though the panels will degrade over time;
- Kit Carson charges about eight cents per kilowatt/hour for daytime solar, which is close to PNM's cost;
- many variables regarding the cost of energy are beyond the cooperative's control, such as Federal Energy Regulatory Commission decisions;
- at some point, the cooperative may seek a legislative remedy regarding regulatory treatment of community solar projects;
- Kit Carson is currently trying to opt out of its contract with Tri-State Generation and Transmission Association, which is set to expire in 2040, in part because Tri-State's rates have doubled since Kit Carson signed on to the contract;
- the cost of sharing a solar array depends on the cost of the array and how it was financed;
- Kit Carson has prior purchase agreements with six solar operators, each with a different escalator clause;
- use of solar energy may have long-term economic development benefits by helping attract companies that may want to use 100 percent solar energy;
- wind energy is cheaper than solar, but the Taos area does not have enough wind to sustain it;
- the largest commercial Kit Carson customers are the Mesa Vista Consolidated School District and Taos Ski Valley;
- Kit Carson serves customers in Taos, Ute Park, northern Española, El Rito, Pilar and Las Trampas;
- Kit Carson began its fiber broadband network by using it on power lines to connect substations, then tied in to schools and will use a $65 million grant to get fiber into every home;
- four contractors are currently working to connect homes;
- broadband access costs customers $39.99 per month; and
- Kit Carson hopes that telecommunications and propane sales will help it stabilize its electricity rates.

Tuesday, July 28

Renewables, Rates and Electric Utility Infrastructure

Jon Hawkins, PNM, described PNM's integration of renewable energy into its existing electric infrastructure. He began with an overview of PNM's renewable energy portfolio, noting that the company is on track to meet the goal of 15 percent of its total portfolio by the end of 2015, pointing out that PNM has invested about $270 million in solar energy. He also discussed PNM's other renewable energy projects, particularly wind and geothermal. Mr. Hawkins went on to discuss the challenges of incorporating renewable energy into the existing power grid. He explained that electricity produced must be balanced with electricity consumed on a second-by-second basis and showed the committee graphs detailing the variability of both wind and solar energy. Mr. Hawkins also noted the difference between peak energy load and base load, pointing out that while utilities must build their grid and generation based on peak load, rates are still based on base load. He went on to discuss the company's prosperity energy project, which is a smart grid storage demonstration project paid for by a U.S. Department of Energy grant and PNM customers. Mr. Hawkins explained that the project is designed to smooth solar intermittency and shift solar energy for delivery during peak hours. He went on to discuss other challenges presented by increased use and integration of solar energy, including grid management, cost recovery and grid modernization.

Keven Groenewold, executive vice president and general manager, New Mexico Rural Electric Cooperative Association, also discussed integration of renewable resources. He began by providing the committee with an overview of rural electric cooperatives in New Mexico, noting that they serve about 80 percent of the state's land mass but only about 25 percent of its population. Mr. Groenewold noted that cooperatives face different challenges than PNM does, mostly due to the sheer number of miles between co-op customers. He went on to explain that integrating renewable energy into the rural electric cooperative system should maintain or enhance the reliability and affordability of the existing operations and service. He also discussed cost recovery of investments made in distribution infrastructure and how fixed charges should balance the customer costs between distributed generation members and non-distributed generation members.

Regina Wheeler of Positive Energy Solar discussed the development of solar energy in New Mexico, explaining that the key drivers of solar development are cost, technology and consumer choice. She noted that New Mexico is able to generate and sell solar energy at a cost relatively competitive with other, more conventional sources. Ms. Wheeler also pointed out that New Mexico ranked in the top 10 states for new solar panel installations in 2014, which helped Positive Energy Solar double its work force from 40 employees to 80. She also discussed challenges associated with continued solar energy development in New Mexico, such as transmission, unplanned outages, environmental concerns and security issues.

Questions and comments from the committee included the following:

- potential problems with having too much solar energy on the grid;
- it is difficult to predict when New Mexico may start to develop problems similar to those experienced by other states;
- New Mexico needs to invest in grid modernization;
- balancing cost recovery with cost to consumers;
- the legislature can help utilities by encouraging them to take on more risk and to invest in new technologies;
- a new battery developed by Tesla is an example of how technology is going to continue to get better and cheaper as more consumers use it;
- PNM received some federal money for solar grid modernization;
- subsidies used to be necessary for solar energy to work for consumers, but several subsidies have already disappeared and the solar market continues to grow;
- community solar projects allow consumers who cannot afford the up-front costs of solar panels to subscribe to a solar facility;
- starting salaries for employees at solar energy companies begin at about $13.00 an hour, but quickly grow to about $20.00 an hour;
- site locations for solar facilities;
- PNM's cost to generate solar energy versus the cost of energy from the San Juan generating station; and
- steps the legislature can take to encourage advances in solar energy storage.

Decoupling and Integrating New Technology into the Grid

Noah Long of the Natural Resources Defense Council provided the committee with an overview of utility rate decoupling. He explained that decoupling first began decades ago in California both as part of an energy efficiency program and as a way to reconfigure the link between utility sales, rates and revenues. In short, decoupling eliminates the need for fixed charges for energy efficiency measures. Mr. Long explained that while decoupling does solve some problems, it does not force utilities to invest in an optimum mix of energy sources and is not a solution to the disputes over the value of solar energy rates paid by customers. However, Mr. Long noted that decoupling does ensure fixed-cost recovery by utilities. He went on to explain that traditional rate recovery structures involve establishing a rate based on anticipated sales and multiplying it by the amount of energy used to determine a customer's bill, which encourages utilities to focus mostly on sales. He pointed out that problems can arise for utilities when sales dip below an anticipated amount due to increased energy efficiency. Mr. Long said that decoupling involves annual rates determined by previous-year actual sales, not anticipated sales, which removes the need to sell more electricity to ensure recovery of fixed costs. However, he noted, a criticism of decoupling is that it can diminish a utility company's growth and profit and does not by itself sufficiently motivate companies to invest in energy efficient technology.

Ricardo Gonzales of El Paso Electric noted that almost all of his company's renewable portfolio comes from solar energy. He also said that the company is looking at integrating new

technology in phases and is working with New Mexico State University on storage and microgrid technology.

Questions and comments from the committee included the following:

- the Public Regulation Commission would be the appropriate body to pursue decoupling in New Mexico;
- California, Maine, Minnesota, Michigan, Oregon and Washington have all adopted decoupling; and
- PNM has supported decoupling, but also requested a fixed-charge proposal.

Protestant Standing in Water Rights Hearings

Senator Griggs explained that he had introduced Senate Bill 665 during the 2015 legislative session that addressed a number of water-related issues, including water rights hearings and protests, and he acknowledged that the interim would be a better time to discuss the individual components of that bill.

Jim Brockmann, attorney, Stein and Brockmann, P.A., began by reviewing water law in western states, noting that New Mexico is in relatively good shape because it acknowledges the interaction between surface and ground water. However, he said that the process of filing protests to water rights applications is beginning to be abused. Mr. Brockmann explained that even water rights applications that are not protested may cost applicants several thousand dollars, but they are still relatively simple and cheap. He said that protests can cause applications to take years and cost tens of thousands of dollars. Mr. Brockmann went on to explain that applications can be protested on the grounds of impairment to other users that they are contrary to the conservation of water in the state and that they are detrimental to the public welfare. However, he said that protests are no longer being used as they were intended, with some being filed as leverage against a business and some filed without any substantial content. Mr. Brockmann suggested that the protest process be streamlined, as outlined in Senate Bill 665, to limit the amount of time available for filing protests and to require protests to have substantial content, as well as to focus hearings on the content raised in protests and not on expanded subject matter. He said that allowing protests to be amended after 10 days makes the 10-day requirement pointless.

Connie Odé, attorney, Humphrey and Odé, P.C., said that changing protestant standing in water rights hearings will discourage public participation in a process that should encourage it by requiring that protestants provide evidence of their standing immediately upon protest. She explained that current OSE regulations already protect applicants who question protestant standing, noting that applicants can already challenge protestants' standing and the court can require them to come forward with proof of standing, which is consistent with state and federal court procedures in water cases. Ms. Odé also noted that the water code provides specifically that all parties may present evidence and argument on all issues, adding that limiting issues of standing in letters of protest is unrealistic, as some issues arise beyond simple impairment as

cases go on. She also said that threatening protestants with payment of an applicant's attorney fees and costs is unnecessary and merely intended to discourage protests.

Paula Garcia, New Mexico Acequia Association, echoed Ms. Odé's comments regarding public participation in the process. She explained that protests to water permit applications are an important part of the review process. Ms. Garcia also said that standing in the administrative hearing process is well-defined. She went on to note that administrative hearings are already a significant challenge for many protestants, who often have limited access to the kind of legal and technical resources required by many cases. Ms. Garcia noted that the proposed changes will shift the burden of proof for protests from the applicant to the protestant, and allowing for recovery of attorney fees will have a chilling effect on the kind of public participation that is embedded in the laws of New Mexico.

Questions and comments from the committee included the following:

- the proposed changes could turn current law upside down;
- district court hearings are an appeal of OSE administrative decisions;
- the OSE is interested in working with the parties involved on all sides of the issue to ensure a fair hearing process;
- the OSE has seen an interest in business and so-called leverage protests lately, particularly in one part of the state; and
- the importance of getting the language right in any statutory changes to the process.

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

Revised: August 26, 2015

TENTATIVE AGENDA
for the
THIRD MEETING IN 2015
of the
WATER AND NATURAL RESOURCES COMMITTEE

August 31-September 1, 2015
Miller Library, Western New Mexico University
Silver City

Monday, August 31

9:30 a.m. (1) **Call to Order and Welcome**
—Dr. Joseph Shepard, President, Western New Mexico University
—Brett Kasten, Chair, Grant County Commission
—Bruce Ashburn, President, Grant County Prospectors

9:45 a.m. (2) **Silver City Area Water Supply Needs**
—James Marshall, Assistant Town Manager, Silver City

10:45 a.m. (3) **New Mexico Central Arizona Project (CAP) Unit Studies, Plans and Status Update**
—Mary Reece, Program Development Division Manager, Bureau of Reclamation
—Craig Roepke, Interstate Stream Commission
—Darr Shannon, Chair, NM CAP Entity

12:30 p.m. **Working Lunch**

1:30 p.m. (4) **Gila Diversion Technical and Financial Concerns**
—Norm Gaume, P.E., Consulting Water Resources Engineer (retired)
—Jim Brooks, U.S. Fish and Wildlife Service (retired)

2:45 p.m. (5) **Soil and Water Conservation District Dam Inundation Mapping and Planning Project**
—Jeff Witte, Secretary, New Mexico Department of Agriculture (NMDA)
—Greg Glunz, P.E., Project Manager
—Julie Maitland, Division Director, Agricultural Programs and Resources, NMDA
—Lacy Levine, Natural Resource Policy and Planning Analyst, NMDA
—John Longworth, P.E., Office of the State Engineer

3:45 p.m. (6) **Animas River Spill Update**
—Representative Paul C. Bandy
—Dennis McQuillan, New Mexico Department of Environment
—Tom Blaine, P.E., State Engineer, Office of the State Engineer
—John Longworth, P.E., Office of the State Engineer

5:00 p.m. **Recess**

Tuesday, September 1

9:00 a.m. (7) **Regional Water Planning Process and Status**
—Deborah Dixon, P.E., Director, Interstate Stream Commission
—Eileen Dodds, Secretary/Treasurer, NM Water Dialogue

10:30 a.m. (8) **Interbasin Water Transfers**
—Anne Minard, Student, University of New Mexico School of Law
—Chris Lindeen, Deputy General Counsel, Office of the State Engineer

12:00 noon **Adjourn**

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

August 31-September 1, 2015
J. Cloyd Miller Library
Western New Mexico University
Silver City

The third meeting of the Water and Natural Resources Committee was called to order by Senator Peter Wirth, chair, on August 31, 2015 at 9:30 a.m. in the J. Cloyd Miller Library at Western New Mexico University (WNMU) in Silver City.

Present
Sen. Peter Wirth, Chair
Rep. Candy Spence Ezzell, Vice Chair
Rep. Paul C. Bandy
Sen. Joseph Cervantes
Rep. Randal S. Crowder
Rep. Dona G. Irwin
Rep. Matthew McQueen
Rep. Andy Nunez
Sen. Benny Shendo, Jr.
Rep. Jeff Steinborn
Sen. Mimi Stewart

Absent
Rep. James Roger Madalena
Rep. Javier Martínez
Sen. Cliff R. Pirtle
Sen. Sander Rue
Rep. James R.J. Strickler
Sen. Pat Woods

Advisory Members
Sen. Carlos R. Cisneros
Rep. Sharon Clahchischilliage
Sen. Lee S. Cotter
Rep. Bealquin Bill Gomez
Sen. Ron Griggs
Rep. Jimmie C. Hall
Rep. Larry A. Larrañaga
Rep. Bill McCamley
Sen. Cisco McSorley
Sen. Gerald Ortiz y Pino
Sen. Nancy Rodriguez
Rep. James G. Townsend
Sen. Ted Barela
Rep. Cathrynn N. Brown
Sen. Pete Campos
Rep. George Dodge, Jr.
Rep. Brian Egolf
Rep. Nora Espinoza
Rep. David M. Gallegos
Sen. Stuart Ingle
Rep. D. Wonda Johnson
Sen. Gay G. Kernan
Sen. Carroll H. Leavell
Rep. Tim D. Lewis
Rep. Rick Little
Sen. Linda M. Lopez

Rep. Stephanie Maez
Sen. Steven P. Neville
Sen. Mary Kay Papen
Rep. G. Andres Romero
Sen. John C. Ryan
Rep. Tomás E. Salazar
Sen. William E. Sharer
Sen. John Arthur Smith
Rep. Don L. Tripp
Rep. Bob Wooley
Rep. John L. Zimmerman

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

Guests
The guest list is in the meeting file.

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

Monday, August 31

Welcome
Dr. Jack Crocker, provost and vice president of academic affairs, WNMU, welcomed the committee to Silver City and thanked the members for coming.

Brett Kasten, chair, Grant County Commission, also welcomed the committee to Silver City and thanked the members for coming, adding that he hoped the committee would have a good dialogue about water resources.

Bruce Ashburn, president, Grant County Prospectors, also thanked the committee for coming to Silver City.

Silver City Area Water Supply Needs
James Marshall, assistant town manager, Silver City, provided the committee with an overview of Silver City's current water supply, future needs and plans for meeting future needs. He began by discussing the town's current water system and development of its 40-year water plan in 2006 and the plan's update in 2009. Mr. Marshall noted that the 2006 plan projected that

Silver City would have to acquire additional water rights as early as 2021, or as late as 2044. However, Mr. Marshall explained that as a result of the 2006 40-year plan and its associated studies, Silver City initiated measures to ensure longer sustainability of currently available water resources, including infrastructure improvements to aid in the transmission of water and limit losses due to leakage, and developing a regional water project to add supplemental water rights to the system.

The updated 2009 plan estimates that Silver City would not have to obtain more water rights before 2057 under a high-growth scenario or 2118 under a low-growth scenario. He noted that $2.1 million had been awarded by the Interstate Stream Commission (ISC) for a regional water system that would be the primary source of water for Hurley and that design of the first phase of the system has been completed. Finally, Mr. Marshall discussed water conservation programs implemented in Silver City since 2013, which have significantly reduced water use in the area and should help Silver City's existing resources last longer.

Comments in response to questions from the committee included:

- use of a tiered billing system;
- per capita water use is about 112 gallons per person per month;
- most of the water rights in the area have been adjudicated;
- Silver City may not need to purchase additional water rights for the next 100 years;
- work on a regional water system is progressing;
- the Silver City Town Council was unanimous in its decision that it was not in Silver City's best interests to join the New Mexico Central Arizona Project (NM CAP) Entity joint powers agreement;
- mines in the area hold up to 40,000 acre-feet of water rights, but they do not use all of them;
- use of recycled water to recharge the Mangas Trench aquifer; and
- use of treated effluent to satisfy requirements for recharge credits.

NM CAP Unit Studies, Plans and Status Update

Mary Reece, program development division manager, U.S. Bureau of Reclamation (BOR), provided the committee with a brief history of the 1968 federal Colorado River Basin Project Act, the 2004 federal Arizona Water Settlements Act (AWSA) and the New Mexico Unit and explained the BOR's role in implementation of the AWSA. Ms. Reece also discussed the BOR's work with the ISC on helping with New Mexico's AWSA planning process and the BOR's June 2015 value engineering planning study, which assesses proposed New Mexico Unit projects and alternatives to ensure that they are technically sound and comply with diversion requirements. She also discussed the phased-project approach used in the value study and provided the committee with details of one of the highest-rated projects, which includes diversion points, necessary infrastructure, potential yield and projected costs of $350 million for phase one and $800 million for all three phases of that project.

Craig Roepke, ISC, also provided the committee with an overview of the New Mexico Unit, which he explained could involve water from the Gila or San Francisco rivers, tributaries or underground sources to be used for any beneficial purpose through gravity diversion, conveyance, aquifer storage and recovery, pumping, piping or channel to facilities within New Mexico. Mr. Roepke also reviewed the ISC's work to this point, including informing the U.S. secretary of the interior that the state would pursue a New Mexico Unit in December 2014 and formation of the NM CAP Entity in July 2015. He also discussed ISC tasks moving forward, including negotiating the unit agreement and providing technical and other support to the NM CAP Entity and the BOR.

Darr Shannon, chair of the NM CAP Entity, provided the committee with an overview of the NM CAP Entity, noting that the 13 voting members had only recently signed a joint powers agreement to form the entity and that it is still in the process of organizing. She also provided the committee with membership in the NM CAP Entity.

Questions and comments from the committee included:

- cost estimates for completion of phase one of the 12 projects evaluated ranged from $115 million to $450 million, with completion costs for all three phases of those projects ranging from $660 million to $1 billion;
- approximately $120 million in federal money will be available to design, plan and construct the New Mexico Unit;
- additional sources of funding for a New Mexico Unit diversion project are not yet identified;
- New Mexico will have to pay the NM CAP entity for the operation, maintenance, replacement and pumping costs (currently $157 per acre-foot) for exchange water for every acre-foot it diverts from the Gila River;
- none of the proposed diversion projects would alter the Gila River's free-flowing status in the Gila Wilderness;
- the U.S. Department of the Interior may still add and define supplemental terms to the New Mexico Unit agreement;
- the NM CAP Entity has no current plans to seek additional funding from the legislature for a diversion project;
- there are currently 11 diversions on the Gila River in New Mexico;
- potential users of water from a diversion project include Deming; Hidalgo and Catron counties; and agricultural users;
- the ISC has looked at the federal Endangered Species Act of 1973 implications of proposed diversion projects, but the federal National Environmental Policy Act of 1969 process will have to be conducted before construction of any diversion project;
- if a diversion structure is built, it would require a reservoir off the main stem of the Gila River;
- NM CAP Entity voting rights and bylaws will be established at an upcoming meeting;
- there are other alternatives that have not yet been analyzed; and

- it is difficult to project exactly how much water New Mexico can really harvest from a diversion project at this point in the process.

Gila Diversion Technical and Financial Concerns

Norm Gaume, former director of the ISC, began by providing the committee with a brief history of the AWSA, including his own involvement in early negotiations as the ISC director. He also discussed his concerns regarding a diversion project and his efforts to analyze available information to determine whether such a project is viable, noting that the ISC had already spent over $4.2 million analyzing alternatives but has yet to decide on a viable project.

Mr. Gaume explained that a BOR cost-benefit analysis of proposed diversion projects projected a $.25 benefit for each $1.00 of cost, while five of the proposed nondiversion projects have a positive cost-benefit ratio. Mr. Gaume noted that there are serious concerns regarding whether sufficient flows will even be available in the Gila River to justify diversion. He also said that local geology indicates that seepage will be a major problem in any reservoir and that lining a reservoir drastically increases the cost of a project. Mr. Gaume also noted that significant amounts of sediment would likely be diverted with any water taken from the Gila River. He suggested that nondiversion alternatives would likely yield more water for less money. Mr. Gaume also said that any municipalities using project water would likely have to impose extreme increases in their water rates, given an estimated $8,000 per acre-foot per year cost of water delivered through the New Mexico Unit.

Jim Brooks, a retired U.S. Fish and Wildlife Service employee, also raised concerns regarding diversion of the Gila River. He began by noting that he was not speaking on behalf of the U.S. Fish and Wildlife Service. Mr. Brooks went on to explain the importance of river flows on the ecology of any river, particularly the Gila. He also suggested that any plan needs to be based on the best available science, which he noted includes a peer-review component. Mr. Brooks said that there is no evidence of peer review of the studies funded by the ISC regarding diversion of the Gila.

Questions and comments from the committee included:

- the Gila Wilderness is not necessarily a balanced ecosystem, but it does have good biodiversity;
- whether a twelfth diversion of the Gila River would cause the local ecosystem to become unbalanced;
- the ISC is currently working on a peer review of its studies;
- potential beneficiaries of phase one of the proposed diversion projects would be irrigators on the Gila River; phase three of the projects could benefit Deming and various colonias;
- no local government has committed to contribute additional funding for a diversion project;
- treatment plants for use of the water have not yet been factored in;

- a diversion project could affect movement of fish along the Gila River;
- the existing diversions on the Gila River are not large permanent structures that cut fish off from upstream; and
- cost of exchange water ranges from $157 per acre-foot to $196 per acre-foot, which New Mexico would have to pay before diverting any water.

Soil and Water Conservation District Dam Inundation Mapping and Planning Project

Jeff Witte, secretary, New Mexico Department of Agriculture, briefed the committee on a project to improve and rehabilitate soil and water conservation district dams statewide, which includes inundation mapping. He began by explaining that funding for the project came from $1 million in severance tax bonds. Secretary Witte also discussed the statutory role of soil and water conservation districts, including control and prevention of soil erosion and prevention of floodwater damage.

Greg Glunz, project manager, gave the committee a brief overview of the scope of work for the project, including data collection, flood hydrology reports, dam breach reports, inundation mapping and development of emergency action plans at some dams. Mr. Glunz went on to provide the committee with dam locations around the state and discussed development of emergency action plans for dams, which include detection, emergency level determination, notification, expected actions and follow-up. He also provided the committee with a project schedule for each dam.

Secretary Witte also pointed out that the project is able to use state money to leverage additional federal funds.

Questions and comments from the committee included:

- the project only covers soil and water conservation district dams;
- dam repairs are prioritized by the greatest potential for impact on human life and property, as many subdivisions have been built in floodplains;
- soil and water conservation districts have the authority to impose ad valorem taxes with the approval of voters in the district;
- some confusion exists regarding ownership of many dams;
- counties and local governments should develop ordinances to determine how much building in a floodplain is permissible;
- the Office of the State Engineer (OSE) reviews dams in accordance with county ordinances, but it does not make or review land-use decisions;
- defined, written responsibilities do not exist for most dams;
- the OSE does inspect some privately owned dams; and
- soil and water conservation districts pay the Risk Management Division of the General Services Department for insurance.

Animas River Spill Update

Representative Bandy provided the committee with a brief history of mining and mining spills in southwestern Colorado and northwestern New Mexico. He then discussed the spill of contaminated mine sludge from the Gold King Mine into Cement Creek that traveled down the Animas River into New Mexico. Representative Bandy also discussed the reaction of various local, state and federal agencies to the spill as it traveled from Colorado to New Mexico, into the San Juan River and eventually through the Navajo Nation. He pointed out that three different U.S. Environmental Protection Agency (EPA) regions were affected by the spill: (1) Region 8, which covers Colorado; (2) Region 6, which covers New Mexico; and (3) Region 9, which covers the Navajo Nation.

Representative Clahchischilliage also discussed the spill, noting that a tremendous amount of sometimes conflicting information was being distributed by various government agencies, making it difficult for Navajos to know whom to believe, particularly with regard to how safe water in the river was for both humans and livestock. She also said that while the EPA did provide trucks with drinking water to Navajo Nation residents, the water turned out to be contaminated with oil, making residents even angrier.

Representative Bandy said that the response by both the state and San Juan County was timely, well-coordinated and vigorous.

Dennis McQuillan, Department of Environment (NMED), also discussed the contamination of the river, providing the committee with a time line of the movement of contaminants downriver. He noted that interactive maps were available on both the NMED and EPA websites, pointing out that the NMED had a map available by Friday after the Wednesday morning spill. Mr. McQuillan also discussed efforts by the NMED Drinking Water Bureau to contact water systems and begin testing water for evidence of harmful contaminants. He went on to detail the closure and eventual reopening of the rivers and ongoing testing efforts to ensure that water quality meets safe standards.

John Longworth, OSE, discussed the nature of the contaminants in the river and the transition of some contaminants from suspended sediments to dissolved sediments.

Tom Blaine, state engineer, also discussed the time line for the accident and the coordination among various agencies to address it. He said that the takeaway from this incident is that a number of state agencies, including the OSE, the NMED, the New Mexico Department of Agriculture, the Department of Health and the Department of Game and Fish, were able to quickly coordinate responses to the accident and work well together.

Questions and comments from the committee included:

- while there are many mines in New Mexico, the possibility of a similar incident happening in this state is relatively remote; the Gold King Mine offered a mix of high elevation and other elements that are rare in mines in New Mexico;
- continued monitoring of contaminants to ensure that they do not end up in the food chain;
- state and federal agencies are conducting many assessments and corrective actions to ensure that similar incidents do not happen again;
- the EPA has a claims process to help mitigate damage costs;
- there are many similar mines in southern Colorado that feature acid rock drainage and that are abandoned, with no responsible party to monitor or clean up the sites;
- New Mexico was not notified by the EPA, but rather by the Southern Ute Tribe;
- development of a global, long-term strategy for addressing mine cleanup;
- reclamation of the Willow Creek Mine near Pecos;
- most New Mexico mines are below ground, which could present ground water contamination issues; and
- NMED prioritization of abandoned mine sites.

Tuesday, September 1

The minutes of the June 1, 2015 meeting were approved without objection as submitted.

Regional Water Planning Process and Status

Deborah Dixon, director, ISC, provided the committee with an overview of the water planning process in New Mexico. She began by discussing the benefits of water planning and went on to talk about the regional water planning process in New Mexico. Ms. Dixon explained that while initial regional water planning efforts were relatively successful, current efforts are more focused on changing conditions and integration of individual regional plans into a state water plan and to tie water funding to those plans to ensure their implementation. She also talked about the development of a regional plan update handbook and formation of regional water planning steering committees that will take input from local stakeholders. Ms. Dixon also discussed input received from a New Mexico Water Dialogue meeting held in late July, which identified several areas of improvement for the planning process, including emphasis on policies as well as projects, additional tribal and pueblo input and integration and funding to support effective planning. Finally, she explained that the next steps involve submission and ISC review of draft plans, feedback from regions and ISC acceptance of plans in 2016, though the schedule may have to be extended to address the concerns of the regions.

Eileen Dodds, secretary/treasurer, New Mexico Water Dialogue, also discussed the regional water planning process, noting that the first round of planning took 11 years and that each region basically handled its own plan. She also noted that the current approach is different in that it is much more of a top-down process, rather than a bottom-up process. Ms. Dodds

outlined five major issues that the representatives from 13 of the 16 planning districts discussed at a recent New Mexico Water Dialogue workshop on the water planning process.

1. There is dissatisfaction with the data because the common technical platform figures represent the "lowest common denominator" and are generalized across the state, where regional conditions vary greatly. With additional time and effort, more complete information for each region could be included to enhance the crucial understanding between the supply and demand gap.

2. There seems to be no good process for prioritizing the projects and programs that each region has presented to the ISC. There is great inequity between very large and very small planning entities. Additional work is needed to establish a framework to assist the regions with submission of projects that can succeed in being implemented.

3. Participation in the planning process has been somewhat lacking, with little involvement by the pueblos and tribes, as well as many other stakeholders. The organization believes that participation can be increased through continued outreach within the regions.

4. The need to consider the issue of governance will result in a joint working group consisting of representatives from the ISC, regional water planners, steering committee members and the New Mexico Water Dialogue. The working group will look at models from other states and consider ways to make regional water planning groups more effective, both legally and administratively. New Mexico Water Dialogue will also explore ways the regions can be brought together to address conflicts.

5. Legislative funding has decreased. There was discussion about the need for funding using a "cost-benefit" approach in regard to legal issues, reducing the supply/demand gap and building relationships, as well as implementing policies, programs and projects to justify the legislative funding requests.

Questions and comments from the committee included:

- New Mexico appropriated almost $4 million for its first round of planning, while Texas spent about $10 million;
- feedback on the current planning model suggests that it needs improvement;
- whether New Mexico needs to structure recurring funding for water planning;
- use of Land Grant Permanent Funds and New Mexico Irrigation Works Construction Fund money for ISC/OSE operations rather than water projects;
- use of water withdrawal data versus water depletion data in the water planning process;
- Elephant Butte Irrigation District is not participating in the water planning process in the lower Rio Grande region;
- a timetable for submission of draft reports and publication of those reports;

- drought is addressed in plans, but it should also include the possible effects of climate change; and
- completion of water plans will help the legislature prioritize funding for water projects.

Interbasin Water Transfers

Anne Minard, a student at the University of New Mexico School of Law, briefly described the advantages and risks of transferring water from one watershed to another and explained that many states have specific criteria governing such transfers, especially transfers involving large amounts of water. Ms. Minard noted that while New Mexico law does not distinguish between intra- and inter-basin transfers of water, there are criteria that apply to all appropriations of water such that a change in place of use cannot impair existing valid water rights, be contrary to the conservation of water within the state or be detrimental to the public welfare of the state. During the last legislative session, she said, a bill was introduced that would have required transfers of more than 7,000 acre-feet per year of water to obtain legislative approval, with applications for transfers of more than 1,000 acre-feet per year to be evaluated by the OSE using specific criteria that consider the effects on the area of origin.

Ms. Minard also outlined laws in other western states, including those of Idaho, Nevada, Oregon, Texas and Utah, noting similarities and differences in each state's approach. Some states require that applicants for inter-basin transfers analyze the economic, environmental or social effects of their proposed projects. Some require financial compensation to communities in the original basin, evaluation of return flow and water quality impacts. She recommended that the committee track the success of other states' statutes in addressing the concerns raised by inter-basin transfers of water and explore why the various states set legislative triggers on specific volumes and rates of withdrawals for such transfers. She also recommended that if the legislature considers any such legislation, that it try to avoid the use of ambiguous terms that seem to be all too commonly used in other states' existing laws on inter-basin transfers.

Chris Lindeen, OSE, discussed some of the criteria his office uses to evaluate completed applications, explaining that a number of criteria may be used to evaluate whether a project is speculative in nature, such as technical feasibility, demand on the move-to site or economic feasibility, among others. Also, the economic or environmental effects on the move-from site may be examined. He cautioned, however, that an evaluation will not even happen if an applicant has not provided all the information needed to properly apply all the criteria required by law. Rather, an incomplete application will be rejected, which happened to the application submitted by the Augustin Plains Ranch.

Questions and comments from the committee included:

- removal of water rights from a basin can be harmful to the communities that no longer have water rights;
- the use of desalination technology by El Paso to meet water needs, rather than transferring it in from other basins;

- Rio Rancho's return flow plan and the city's consumptive use;
- the OSE tries to prevent speculative uses of water;
- some water from Otero Mesa goes to Mexico;
- policymakers need to focus on regional, long-term solutions for water;
- the potential for geologic instability as aquifers are depleted;
- ways to study the life expectancy of aquifers and the likelihood that they will become empty at some point;
- desalination may not necessarily work for many New Mexico aquifers; and
- OSE authority over deep wells.

There being no further business, the committee adjourned at 12:35 p.m.

Revised: October 7, 2015

TENTATIVE AGENDA
for the
FOURTH MEETING IN 2015
of the
WATER AND NATURAL RESOURCES COMMITTEE

October 15-16, 2015
Ruidoso Downs Racetrack
Ruidoso Downs

Thursday, October 15

9:30 a.m. **Call to Order and Welcome**
—Shaun Hubbard, General Manager, Ruidoso Downs Racetrack (invited)

9:45 a.m. (1) **Forest and Watershed Restoration**
—Tony Delfin, New Mexico State Forester
—Laura McCarthy, The Nature Conservancy
—Director, Jemez Economic Development Corporation (invited)
—Aron Balok, Water Resource Specialist, Pecos Valley Artesian Conservancy District
—Brent Racher, President, New Mexico Forest Industry Association

12:00 noon **Lunch**

1:00 p.m. (2) **New Mexico Bureau of Geology and Mineral Resources/Aquifer Mapping Program: Regional to Watershed Scale Hydrogeology Studies**
—Matthew Rhoades, Director and State Geologist, New Mexico Bureau of Geology and Mineral Resources, New Mexico Institute of Mining and Technology (NMIMT)
—Stacy Timmons, Aquifer Mapping Program Manager, New Mexico Bureau of Geology and Mineral Resources, NMIMT
—Geoffrey Rawling, Field Geologist, New Mexico Bureau of Geology and Mineral Resources, NMIMT
—B. Talon Newton, Hydrogeologist, New Mexico Bureau of Geology and Mineral Resources, NMIMT

2:00 p.m. (3) **Water Leasing Procedures**
—Christopher Lindeen, Deputy General Counsel, Office of the State Engineer
—Paula Garcia, Executive Director, New Mexico Acequia Association
—Liz N. Taylor, Taylor and McCaleb, P.A.
—Steve Hernandez, The Law Office of Steven L. Hernandez, P.C.
—Alvin Jones, Hennighausen and Olsen, L.L.P.
—Lea County Representative

4:00 p.m. (4) **Federal Endangered Species Act of 1973 Requirements and Compliance Costs of the Interstate Stream Commission (ISC)**
—Rolf Schmidt-Petersen, Rio Grande Basin Manager, ISC
—Greg Lewis, Pecos River Basin Manager, ISC

5:00 p.m. **Recess**

Friday, October 16

9:00 a.m. (5) **Department of Game and Fish Report on Elk, Antelope and Deer Populations**
—Alexa Sandoval, Director, Department of Game and Fish

10:30 a.m. (6) **Oil and Gas Industry Update**
—Wally Drangmeister, Vice President and Director of Communications, New Mexico Oil and Gas Association
—Claire Chase, Director of Governmental Affairs, Mack Energy Corporation

12:00 noon **Adjourn**

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

October 15-16, 2015
Ruidoso Downs Racetrack
Ruidoso Downs

The fourth meeting of the Water and Natural Resources Committee was called to order by Senator Peter Wirth, chair, at 9:35 a.m. on Thursday, October 15, 2015, at the Ruidoso Downs Racetrack in Ruidoso Downs.

Present
Sen. Peter Wirth, Chair (Oct. 15)
Rep. Candy Spence Ezzell, Vice Chair
Rep. Paul C. Bandy
Sen. Joseph Cervantes
Rep. Randal S. Crowder
Rep. Dona G. Irwin
Rep. Matthew McQueen
Sen. Cliff R. Pirtle
Sen. Benny Shendo, Jr.
Rep. Jeff Steinborn
Rep. James R.J. Strickler (Oct. 15)
Sen. Pat Woods

Absent
Rep. James Roger Madalena
Rep. Javier Martínez
Rep. Andy Nunez
Sen. Sander Rue
Sen. Mimi Stewart

Advisory Members
Sen. Carlos R. Cisneros
Rep. Sharon Clahchischilliage
Sen. Lee S. Cotter
Rep. Nora Espinoza
Rep. David M. Gallegos (Oct. 16)
Rep. Bealquin Bill Gomez
Sen. Ron Griggs (Oct. 15)
Rep. Jimmie C. Hall
Rep. Larry A. Larrañaga
Rep. Rick Little (Oct. 16)
Sen. Linda M. Lopez (Oct. 15)
Rep. Bill McCamley
Sen. Cisco McSorley
Sen. Gerald Ortiz y Pino
Sen. Mary Kay Papen
Sen. Nancy Rodriguez (Oct. 16)
Sen. Ted Barela
Rep. Cathrynn N. Brown
Sen. Pete Campos
Rep. George Dodge, Jr.
Rep. Brian Egolf
Sen. Stuart Ingle
Rep. D. Wonda Johnson
Sen. Gay G. Kernan
Sen. Carroll H. Leavell
Rep. Tim D. Lewis
Rep. Stephanie Maez
Sen. Steven P. Neville
Rep. G. Andrés Romero
Sen. John C. Ryan
Rep. Tomás E. Salazar
Sen. William E. Sharer

Rep. James G. Townsend
Rep. Don L. Tripp (Oct. 16)
Rep. Bob Wooley
Rep. John L. Zimmerman (Oct. 16)

Sen. John Arthur Smith

Guest Legislators
Rep. Alonzo Baldonado (Oct. 16)
Rep. Kelly K. Fajardo (Oct. 16)
Rep. Jason C. Harper (Oct. 16)
Rep. Debbie A. Rodella (Oct. 16)

(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
Alexandria Tapia, LCS

Guests
The guest list is in the meeting file.

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

Thursday, October 15

Forest and Watershed Restoration
Tony Delfin, New Mexico state forester, described the work that the Forestry Division of the Energy, Minerals and Natural Resources Department has been conducting on forest and watershed restoration over the past year, and in particular the work being done under the 2015 Watershed Restoration Initiative, which involves an allocation of $6.2 million to begin treating 7,700 acres in 14 high-priority watersheds in New Mexico. He showed the committee a map listing completed and ongoing watershed treatment projects, noting that almost 3,000 acres have been treated since October 2014. The 2016 initiative includes approximately $8.5 million to restore 11,000 acres statewide, he explained. Mr. Delfin also said that planning, funding and coordination of the projects have come from a number of agencies and partnerships, including the U.S. Forest Service, the Department of Game and Fish, the State Land Office, The Nature Conservancy, several conservancy districts and some tribal entities.

Laura McCarthy, The Nature Conservancy, explained that over the past few years, there has been an increased appreciation of the necessity of working together to address forest and

watershed health at all levels of government and between the public and private sectors. She gave examples of successful cooperative projects that have been conducted in the Manzano Mountains, the Carson National Forest and the Taos area, but she emphasized that significant scaling up will be necessary in order to avoid a catastrophic wildfire season like 2011. Ms. McCarthy went on to say that most of the partners in the initiative realize they have shared priorities and that finding long-term funding for forest and watershed treatment is the last piece of the puzzle.

Senator Shendo, speaking on behalf of the Jemez Community Development Corporation, said that forest and watershed restoration efforts began in the Jemez Mountains in 2002 as the U.S. Department of Energy sought to thin the forest around Los Alamos. He explained that the development corporation has created economic development by finding markets for the trees harvested from forest treatments. Senator Shendo noted that the development corporation had recently purchased a micromill to turn small-diameter trees into usable products like wood flooring. He also discussed a five-year project to treat 200,000 acres, noting that securing at least 10 to 12 years of funding is the key to these kinds of projects. Senator Shendo emphasized that although federal legislation has authorized some funding for forest and watershed treatment, there is a tremendous amount of forest land that needs treatment.

Aron Balok, water resource specialist for the Pecos Valley Artesian Conservancy District, said there are 110,000 irrigated acres in the conservancy district, noting that it uses mostly ground water for irrigation. However, he explained that most of the 11 million acres of watershed feeding the district is in need of some treatment, pointing out that even juniper trees are a major problem. Mr. Balok also discussed development of treatment methods for watersheds, including newer chemical and charged particle technologies.

Brent Racher, president, New Mexico Forest Industry Association, explained that most stakeholders and policymakers have come to understand the importance of forest and watershed restoration. However, he emphasized the massive scale of the land that requires treatment, pointing out that, while treatments are ramping up, only about 30,000 to 40,000 acres are currently treated each year. Mr. Racher said that treating 135,000 acres per year would require 20 years in order to treat all of the forest land in New Mexico. He also noted that a long-term funding commitment is the key to addressing the issue.

Questions and comments from the committee included:

- between 50 percent and 60 percent of the forested acreage in New Mexico is on federal land;
- prioritization of watersheds for treatment;
- treatment of federal land is not necessarily more difficult than state land, as different forests have different permitting requirements;
- the makeup of the watershed restoration subcommittee;
- current funding amounts and sources;

- state funding can be leveraged for additional federal funding;
- healthy forests have about 50 to 60 trees per acre, while untreated forests average about 2,000 trees per acre;
- projects that are ready to go with good local partnerships tend to be prioritized first;
- private industry investment is the key to treating forests on a large scale, but without long-term funding of projects, industry will not risk investing in infrastructure;
- the U.S. Forest Service's approach changes when other entities have money available to begin treating forests;
- if New Mexico can develop a long-term funding source, the federal government will provide matching funds;
- some forests will require annual treatment, while others will remain healthy for much longer;
- soil and water conservation districts can do some treatments on private land;
- the use of nonrecurring funding for these types of ongoing projects is not ideal;
- participation from the forest products industry would help provide some private investment;
- catastrophic fire will likely strike a relatively large city sometime in the future if watersheds go untreated; and
- the legislature needs to continue working toward a dedicated funding stream to which the governor will agree.

New Mexico Bureau of Geology and Mineral Resources/Aquifer Mapping Program: Regional to Watershed Scale Hydrogeology Studies

Matthew Rhoades, state geologist and director, New Mexico Bureau of Geology and Mineral Resources (NMBGMR), New Mexico Institute of Mining and Technology (NMIMT), provided the committee with an overview of the Aquifer Mapping Program.

Stacy Timmons, Aquifer Mapping Program manager, NMBGMR, NMIMT, began by explaining that New Mexico's geology and aquifers are very complex, comparing them to the relatively simple geology of a state like Nebraska. She explained that the Aquifer Mapping Program addresses the quantity, quality and distribution of ground water in New Mexico. Ms. Timmons also noted that the program has a number of partners and users, including governments, national laboratories, counties, municipalities, irrigation districts, academic institutions, water utilities and tribal entities. She went on to explain that although each project is unique, they all try to provide information to aid in better decision-making. Ms. Timmons also discussed the basics for an aquifer mapping project, including data collection and development of conceptual models.

Geoffrey Rawling, field geologist, NMBGMR, NMIMT, provided the committee with an overview of a project studying the hydrogeology of the southern Sacramento Mountains. He discussed the various methods of data collection and the relationship between water levels and precipitation in the area and showed the committee a conceptual model built for the study. He explained the study showed that approximately 75 percent of the recharge for the Roswell

Artesian Basin occurs above 7,800 feet, primarily from snowmelt, and averages 129,599 acre-feet per year.

B. Talon Newton, hydrogeologist, NMBGMR, NMIMT, also provided the committee with data regarding recharge to the Sacramento Mountains and Roswell Artesian Basin, with a focus on the effects of tree thinning on water supply. He explained that the ideal conditions for increasing water yield by thinning trees require above-average precipitation, low temperature, thin soils and geologic conditions that allow water to enter ground water or surface water quickly.

Questions and comments from the committee included:

- the relationship among watersheds, aquifers and areas downstream means that aquifer recharge and watershed health in one area can affect other areas;
- most recharge of aquifers happens at higher elevations, in part due to higher snowfall and lower evapotranspiration;
- some regional data exist for brackish aquifers, but statewide data are less available;
- the NMBGMR is digitizing the legacy data on aquifers around the state; and
- the age of water in the aquifer underlying the Plains of San Agustin is very old, and it is not clear to which river basin the aquifer is connected.

Water Leasing Procedures

Christopher Lindeen, deputy general counsel, Office of the State Engineer (OSE), gave an overview of current OSE practices regarding water leasing. He explained that the Water-Use Leasing Act provides a temporary way to transfer water in non-emergency situations, and that the OSE provides preliminary approval for transfers once several conditions are met, including evaluation by the OSE of hydrogeology and potential impairment, publication of the preliminary approval and protection of ground water and surface water. Mr. Lindeen also noted that some leasing act transfers are for oil and gas development. He acknowledged that some concerns have been raised regarding current practices, and he said that the OSE is working to address those concerns.

Paula Garcia, executive director, New Mexico Acequia Association, also discussed the leasing program and changes to it proposed by two bills during the 2015 legislative session. She explained that one bill, Senate Bill 493, would have clarified that a water use may only become effective after the application has been approved by the OSE in accordance with the statutes that require a public hearing if a protest has been filed. Ms. Garcia said that the other bill, Senate Bill 665, would have made several changes to state water law, including granting immediate use to applicants without a hearing in certain instances. She said that the practice of granting preliminary approval raises serious concerns about due process and the protection of existing water rights.

Liz N. Taylor, an attorney for Rock House Ranch, said that due process is protected when the OSE issues preliminary approval because the office conducts an evaluation for potential impairment, and several other conditions, such as publication, must be met. She also noted that the typical permitting process, including protests and hearings, is still followed. Ms. Taylor pointed out that acequias and community ditches have additional protection, as they can deny lease applications even before OSE consideration. She also said that leases aid in economic development, particularly in the oil and gas industry, and benefit farmers and even some environmental purposes.

Steve Hernandez, an attorney for the Elephant Butte Irrigation District, said that there are some due process problems with allowing preliminary approval of lease applications. He explained that granting preliminary approval means that protestants have no chance to bring experts before a hearing officer and that ground water pumping will continue over the 12 to 18 months it takes before a hearing can be held. Mr. Hernandez said some water rights holders are being harmed by lease transfers, and there are no remedies for those people who have already been harmed.

Alvin Jones, an attorney for the Southern Rio Grande Diversified Crop Farmers Association, explained that the association is part of a larger group of farmers who came together during adjudication of the lower Rio Grande, most of whom are ground water users. He explained that there are no statutory provisions for emergency ground water transfers, which means that the Water-Use Leasing Act is an integral and vital tool for managing water in times of drought. Mr. Jones said that while there are concerns about the act, farmers rely on water leasing as an essential tool for water management in New Mexico. For example, Mr. Jones said that while some farmers can fallow their land during water shortages, others, such as pecan growers, cannot adapt and rotate their crops. He said that water banking is an essential tool for moving water to users who cannot fallow their land, and he anticipated that the Active Water Resource Management rules would allow for the adaptive and flexible response needed to manage water in times of shortage.

DL Sanders, an attorney speaking on behalf of Lea County, said that the county supports efforts to amend the Water-Use Leasing Act, adding that the solution is not the status quo, but improving it. He noted that there is no remedy for water rights owners whose water rights are impaired by a temporary diversion. Mr. Sanders suggested that an expedited hearing process be developed to give protestants an opportunity to be heard in a timely fashion. He also suggested that water banking could help address water shortages and priority calls.

Questions and comments from the committee included:

- whether "emergency" is defined in statute;
- priority dates do not necessarily matter regarding impairment;
- whether an owner's misuse of water is an emergency;
- even in an emergency, only a well for the same use is allowable;

- ground water rights can be transferred under the Water-Use Leasing Act, but not in an emergency;
- water rights owners need to be given the opportunity to protect themselves from erroneous decisions;
- mostly ground water rights are leased, but some surface rights may be leased, too;
- who has standing to protest a lease of water;
- reversals of preliminary approval by the OSE;
- withdrawal of a lease application by the Village of Ruidoso;
- the lease statute has been in place since 1967, but there were very few applications until the early 2000s; and
- the OSE and stakeholders will continue to work on the issue until a solution that works for most everyone is developed.

Federal Endangered Species Act of 1973 Requirements and Compliance Costs of the Interstate Stream Commission

Rolf Schmidt-Petersen, Rio Grande Basin manager, Interstate Stream Commission (ISC), provided the committee with an overview of the federal Endangered Species Act of 1973 (ESA) and its impact on New Mexico's water management. He began by explaining that all federal agencies are required to address the ESA and that saying no is not an option. Mr. Schmidt-Petersen noted that ESA compliance can significantly affect water operations and that New Mexico water users may be negatively affected by it. He went on to discuss creation of the strategic water reserve, a pool of publicly held water rights dedicated to keeping New Mexico's rivers flowing to meet the needs of river-dependent endangered species and fulfill New Mexico's compact delivery obligations to other states. Mr. Schmidt-Petersen also discussed other strategies employed by the ISC, such as proactively addressing endangered species issues and leveraging federal funds and programs to meet goals. He also explained that the ISC's water operations involvement covers endangered species in the San Juan River, Pecos River, middle Rio Grande and Canadian River basins. Mr. Schmidt-Petersen also said that the ISC has spent about $24.5 million on ESA compliance since 2001 and that expenses have averaged about $1 million per year over the last seven years.

Mr. Schmidt-Petersen went on to discuss the Rio Grande Basin and actions the ISC has taken to address ESA issues there, such as developing flexibility to operate the reservoir system, conducting reservoir and river water calls, developing species habitat and raising and studying the Rio Grande silvery minnow in hatcheries.

Greg Lewis, Pecos River Basin manager, ISC, discussed the Pecos River Basin and the ISC's endangered species actions there. He began by providing the committee with a brief history of endangered species on the Pecos River, particularly the Pecos bluntnose shiner. Mr. Lewis went on to discuss development of the Vaughan Conservation Pipeline, a collaboration between the ISC and the federal Bureau of Reclamation (BOR) that uses 10 wells and a pipeline to augment Pecos River flows above critical habitat areas. He also explained that the Pecos

bluntnose shiner is currently recovering after extreme drought in the area and praised the Vaughan Conservation Pipeline as an essential water management tool.

Mr. Schmidt-Petersen and Mr. Lewis also summarized ESA efforts in the San Juan Basin, particularly regarding the Colorado pikeminnow and the razorback sucker, both of which appear to be surviving and are expected to be downlisted by 2023.

Questions and comments from the committee included:

- the veto of funding for ISC staff;
- a BOR grant is decreasing, and the ISC's goal is to reduce dependence on that grant and create a permanent position using general fund money;
- contamination of water by a broken casing on a well near the Pecos River;
- although the Pecos River has run dry at times, the Pecos bluntnose shiner has managed to survive;
- New Mexico spends at least $3.3 million per year across several agencies on ESA compliance;
- many residents are unhappy with the ESA and are in favor of overhauling it;
- about $40 million to $50 million in federal money is spent annually in New Mexico on flood protection and water delivery, along with $8 million to $15 million on the Middle Rio Grande Endangered Species Collaborative Program, a state-federal cost-sharing program; and
- federal and state money is spent on leasing water, hatchery programs, scientific studies and monitoring of endangered species.

The committee recessed at 5:25 p.m.

Friday, October 16

The committee reconvened at 9:00 a.m. On a motion made, seconded and passed, the minutes of the July 27 meeting of the committee were approved as submitted.

Department of Game and Fish Report on Elk, Antelope and Deer Populations

Alexa Sandoval, director, Department of Game and Fish, provided the committee with an overview of the department's operations, beginning with maps showing the various elk herd units in New Mexico.

Stuart Liley, Big Game Program supervisor, Department of Game and Fish, began by providing the committee with specific information for several elk herd units, highlighting changes made to address various issues in each region, such as development of new hunts to address depredation, increases in the issuance of licenses, harvest numbers and population estimates.

Mr. Liley went on to discuss the pronghorn antelope population in New Mexico, noting that while drought conditions between 2011 and 2013 affected fawn survival rates, some areas have experienced population increases in 2014-2015. He pointed out that other factors, such as predation and habitat loss, likely contributed to survival rates. Mr. Liley also discussed efforts to capture and relocate pronghorns, noting that more than 500 have been captured and relocated in the past two years as a means of decreasing agricultural issues while supplementing struggling populations. He cited a 90 percent survival rate among relocated pronghorns one year after relocation. Mr. Liley also noted a pronghorn fawn survival research project near Fort Stanton, which showed that the primary known cause of fawn mortality is predation.

Mr. Liley also discussed the deer population in New Mexico. He said that population declines have been observed statewide, as well as low harvest success rates, acknowledging that the department has received extensive public comment regarding reduced hunting opportunities. Mr. Liley said that deer license number have been reduced by about 11.5 percent statewide in an effort to increase hunter success and satisfaction. He also showed the committee a map indicating license reductions by region.

Finally, Mr. Liley discussed a mule deer and cougar interaction study geared toward assessing cougar kill rates and deer mortality rates to help inform herd management recommendations.

Questions and comments from the committee included:

- cougars are the primary predators of elk, although some are killed by bears;
- the effect of wolves on the elk population is not significant, but that may rise significantly in two to three years if the pattern follows what happened in Yellowstone National Park;
- there has been an increase in the whitetail deer population, while the mule deer population has declined, in part due to habitat and diet differences;
- birth and survival rates of twin pronghorns depend on moisture and drought conditions;
- population estimates are based on aerial surveys conducted once per year, in addition to some ground crews;
- Department of Game and Fish management plans consider the survival of multiple species, while the U.S. Fish and Wildlife Service's wolf reintroduction plan focuses on the survival of a single species to the possible detriment of other species;
- the issuance of elk permits is based upon the estimated harvest of 30 percent of the population in a particular region;
- a request by the commissioner of public lands to increase the cost of leases issued to the Department of Game and Fish from about $200,000 to $1 million and ongoing negotiations between the two agencies;
- the Department of Game and Fish is tasked with ensuring the survival of all species, including wolves;

- the U.S. Fish and Wildlife Service is the lead agency on the reintroduction of the Mexican gray wolf, and the Department of Game and Fish defers to it;
- conflicting plans regarding wolves have been issued by the U.S. Fish and Wildlife Service;
- in attempting to address estimated growth in the cougar population in New Mexico, the State Game Commission added trapping as an additional means of capture but did not increase its cougar harvest quotas;
- the Department of Game and Fish can manipulate some factors affecting the declining deer population, such as habitat and predation, but not drought conditions;
- the elk herd in New Mexico is estimated at 70,000 to 90,000;
- the cougar population in New Mexico is estimated to be between 3,500 and 5,500;
- small landowner permits for game depredation are issued on a case-by-case basis;
- the Department of Game and Fish has no plans to alter its depredation or small contributing ranch programs;
- cougars destroying private property can be killed, but the Department of Game and Fish requires notification within 24 hours of such incidents;
- the Department of Game and Fish has committed almost $30 million for large-scale habitat restoration;
- big game license procedure is based on a lottery, with a nonrefundable application fee and a refundable license fee required of lottery participants;
- late-season hunt procedures are developed by considering conditions and various other issues;
- the Taxation and Revenue Department has requested the Department of Game and Fish to provide it with data regarding participants in the E-PLUS private lands use program in reference to possible income tax issues;
- the Department of Game and Fish is negotiating with the State Land Office regarding increased access to public land in conjunction with the commissioner of public lands' request for increased lease amounts; and
- the Department of Game and Fish owns about 175,000 acres of land.

Oil and Gas Industry Update

Wally Drangmeister, vice president and director of communications, New Mexico Oil and Gas Association, began by providing the committee with an overview of the oil and gas industry in New Mexico, including the number of producing wells, jobs associated with the industry and the overall impact on New Mexico's general fund, severance taxes and royalties. Mr. Drangmeister also discussed oil prices and production in New Mexico, explaining that although crude oil prices have dropped significantly in recent months, New Mexico is on pace for record production levels, which has helped to offset low prices somewhat. Mr. Drangmeister went on to discuss industry improvements and new technologies, such as increased efficiencies in well drilling and operations and better planning for use of capital investments. He also discussed challenges facing the industry, such as a low price environment and costly local and federal regulations. Mr. Drangmeister also discussed federal issues, particularly the ban on oil exports and the potential benefits the industry could enjoy in New Mexico if the ban is lifted.

Claire Chase, director of governmental affairs, Mack Energy Corporation, echoed Mr. Drangmeister's comments. She also provided the committee with an overview of Mack Energy's operations in New Mexico and elsewhere, pointing out the company's scholarship program for high school students in Artesia. Ms. Chase also discussed energy policy in New Mexico, noting that leadership from the state could help the industry, citing the passage of a bill in Texas that preempts local government laws that could hinder oil and gas development.

Questions and comments from the committee included:

- Mack Energy's scholarship program also requires recipients to perform community service in both Artesia and the community around their college;
- Mack Energy has paid about $1.5 million in scholarships to date;
- oil well production increases are mostly due to horizontal drilling technology;
- the United States has a stable supply of oil, but geopolitical factors could undermine that stability;
- the United States does import oil from countries such as Mexico and Venezuela, which does affect the price;
- regulatory and permitting issues make it unlikely that lifting the oil export ban will lead to construction of additional refineries in the United States;
- domestic and international markets for liquified natural gas are different, but facilities to liquify natural gas are unlikely to be built within the United States; and
- some facilities to liquify natural gas are being installed on transport ships to avoid regulatory environments within the United States.

There being no further business, the committee adjourned at 12:20 p.m.

Revised: November 3, 2015

TENTATIVE AGENDA
for the
FIFTH MEETING IN 2015
of the
WATER AND NATURAL RESOURCES COMMITTEE

November 5-6, 2015
Room 322, State Capitol
Santa Fe

Thursday, November 5

9:30 a.m. **Call to Order**

9:35 a.m. (1) **New Mexico Rural Water Association (NMRWA) Briefing**
—Bill Connor, Executive Director, NMRWA

10:45 a.m. (2) **United States Department of Agriculture (USDA) Rural Development Funding**
—Terry Brunner, State Director, USDA Rural Development

12:00 noon **Lunch**

1:00 p.m. (3) **Middle Rio Grande Conservancy District (MRGCD) and Mid-Rio Grande Levee Task Force Briefing**
—Mike Hamman, Chief Engineer, MRGCD
—Derrick Lente, Chair, Board of Directors, MRGCD

2:15 p.m. (4) **Litigation Update and Administrative Permit Application Backlog Reduction**
—Sarah Bond, Office of the Attorney General
—Stephen R. Farris, Office of the Attorney General
—John Romero, Office of the State Engineer (OSE)

3:30 p.m. (5) **Active Water Resource Management Implementation Update**
—Tom Blaine, State Engineer
—Greg Ridgley, General Counsel, OSE

5:00 p.m. **Recess**

Friday, November 6

9:00 a.m. (6) **Rio Grande Trail Commission Report**
—David Martin, Secretary, Energy, Minerals and Natural Resources Department

10:00 a.m. (7) **Proposed Legislation**
—Solar Tax Credit Extension
—Funding for Ground Water Mapping
—Boll Weevil and Pink Bollworm Funding
—Industrial Hemp Research
—Big Game Depredation Compensation

10:30 a.m. (8) **Aamodt Settlement Update**
—Charlie Dorame, Chairman, Northern Pueblos Tributary Water Rights Association
—Arianne Singer, OSE
—John Utton, Santa Fe County
—Bruce Frederick, Santa Fe County
—Larry White, Attorney, Non-Pueblo Defendants, Tesuque
—Mark Sheridan, Non-Pueblo Defendants, Pojoaque (invited)
—Representative Carl Trujillo, District 46

1:00 p.m. **Adjourn**

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

November 5-6, 2015
Room 322, State Capitol
Santa Fe

The fifth meeting of the Water and Natural Resources Committee was called to order at 9:30 a.m. in Room 322 of the State Capitol by Senator Peter Wirth, chair.

Present
Sen. Peter Wirth, Chair
Rep. Candy Spence Ezzell, Vice Chair
Rep. Paul C. Bandy
Rep. Randal S. Crowder
Rep. Dona G. Irwin
Rep. James Roger Madalena
Rep. Javier Martinez (11/5)
Rep. Matthew McQueen
Rep. Andy Nunez
Sen. Cliff R. Pirtle
Sen. Benny Shendo, Jr. (11/5)
Rep. Jeff Steinborn (11/6)
Sen. Mimi Stewart
Rep. James R.J. Strickler
Sen. Pat Woods

Absent
Sen. Joseph Cervantes
Sen. Sander Rue

Advisory Members
Sen. Ted Barela
Sen. Carlos R. Cisneros (11/5)
Rep. Sharon Clahchischilliage (11/5)
Sen. Lee S. Cotter (11/5)
Rep. Nora Espinoza (11/5)
Rep. Bealquin Bill Gomez
Sen. Ron Griggs
Rep. Jimmie C. Hall (11/5)
Rep. Larry A. Larrañaga (11/6)
Sen. Linda M. Lopez (11/6)
Rep. Bill McCamley
Sen. Cisco McSorley
Sen. Gerald Ortiz y Pino (11/5)
Sen. Mary Kay Papen
Rep. Cathrynn N. Brown
Sen. Pete Campos
Rep. George Dodge, Jr.
Rep. Brian Egolf
Rep. David M. Gallegos
Sen. Stuart Ingle
Rep. D. Wonda Johnson
Sen. Gay G. Kernan
Sen. Carroll H. Leavell
Rep. Tim D. Lewis
Rep. Rick Little
Rep. Stephanie Maez
Sen. Steven P. Neville
Rep. G. Andres Romero

Sen. Nancy Rodriguez
Rep. Tomás E. Salazar
Rep. Bob Wooley (11/5)
Rep. John L. Zimmerman

Sen. John C. Ryan
Sen. William E. Sharer
Sen. John Arthur Smith
Rep. James G. Townsend
Rep. Don L. Tripp

(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
Nancy Martinez, LCS

Minutes Approval

Because the committee will not meet again this year, the minutes for this meeting have not been officially approved by the committee.

Guests

The guest list is in the meeting file.

Handouts

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

Thursday, November 5

New Mexico Rural Water Association (NMRWA) Briefing

John Jones, NMRWA, provided an overview of the background, mission, membership, governance and activities of the association. He began with some background on the NMRWA, explaining that it represents 488 community water systems serving about 1.3 million customers and was established in 1978 in response to the federal Safe Drinking Water Act of 1974. The association is funded through membership dues and contracts for service, some of which are with the state's Department of Environment. The NMRWA also monitors projects for the United States Department of Agriculture (USDA) Rural Development program. Mr. Jones also discussed some of the work of the NMRWA, noting that it helps with water and wastewater system development, as well as emergency assistance to communities and source water protection plans for community systems. He also said that the NMRWA helps with solid waste management and energy efficiency assessments. Mr. Jones also discussed operator and board member training offered by the NMRWA, as well as public education and outreach efforts.

Discussion by the committee included the following topics:

- coordination between the NMRWA and the Department of Environment on training;
- Department of Environment service contracts;
- various funding mechanisms for small water systems and the difficulty faced by smaller water systems that have no tax base;
- some smaller rural systems encounter difficulty accessing appropriated funds because of application prerequisites, such as audits;
- the NMRWA tries to offer some assistance to small systems with audit requirements, but only as limited resources allow;
- the NMRWA does provide assistance to some colonias;
- the cost-sharing advantages of forming regional water systems;
- advance planning processes for small and larger water systems; and
- the NMRWA can assist all publicly funded water systems, regardless of size.

USDA Rural Development Funding

Terry Brunner, state director, USDA Rural Development, explained how USDA Rural Development funding works. He began with a brief history and overview of the USDA Rural Development programs, which include everything from housing assistance to rural business services. Mr. Brunner noted that "rural" is defined as any area of the state that is not Santa Fe, Albuquerque, Rio Rancho or Las Cruces. He also pointed out that the USDA provided over $1.4 billion in project funding to New Mexico over five years, emphasizing that it is the go-to agency for rural project financing. Mr. Brunner provided the committee with a chart detailing various USDA funding sources and each source's allowable uses. He also provided the committee with a chart detailing various grants, loans and interest rates provided to New Mexico entities in federal fiscal year 2015. Mr. Brunner also discussed USDA outreach and education efforts, noting that training and capacity-building are important components of the work that the USDA does. For example, he explained that many water association boards are composed of aging members who are beginning to retire, taking a vast amount of institutional knowledge with them, and the USDA helps train newer members on subjects such as financial literacy. Mr. Brunner also noted that the USDA could have financed even more projects in 2015 than it did, such as helping communities with water and wastewater projects. He pointed out that improving New Mexico's infrastructure would help promote economic development.

Questions and comments from the committee included the following:

- each member of the committee asked Mr. Brunner about existing or potential projects in their respective districts, and Mr. Brunner replied that the USDA could likely help with those projects;
- the need for a statewide map showing where broadband fiber-optic networks are needed;
- the USDA has already spent $25 million on broadband in the state;

- leveraging capital outlay funds for additional federal money would help dollars stretch further;
- some USDA money goes unspent due to a lack of projects;
- the USDA mostly works with public entities but will look at partnerships with private entities; and
- hybrid loans and grants can help communities get project funding and free state capital outlay money for other uses.

Middle Rio Grande Conservancy District (MRGCD) and Mid-Rio Grande Levee Task Force Briefing

Derrick Lente, chair, board of directors, MRGCD, provided the committee with a brief overview of the MRGCD's operations and history.

Mike Hamman, chief engineer, MRGCD, also provided the committee with an overview of the MRGCD's operations, explaining that the conservancy district operates between Cochiti Dam and the Bosque del Apache National Wildlife Refuge. He also said that the district stores water in El Vado Reservoir on the Chama River and operates diversion weirs at Angostura, Isleta and San Acacia. Mr. Hamman went on to discuss streamflow in the area from 2010 to 2015, noting that below-average to much-below-average flows over those five years, which were 44 percent of the 30-year average, have made it difficult for the district to deliver enough water to users. Also, because of restrictions in Article VII of the Rio Grande Compact on upstream reservoir storage during that period, the district has not been allowed to store water in El Vado, though the district was able to store 82,000 acre-feet of water during a two-month period when the restriction was not in place during that time. The district exhausted its share of San Juan-Chama water in 2013, he said, and in 2014 and 2015, the district did not get its full allocation of that water. Mr. Hamman also discussed forecast runoff rates and the precipitation outlook for the winter, which, due to the effects of a strong El Nino, are encouraging. Mr. Hamman detailed estimated depletions by category in the middle Rio Grande, saying that crops account for 28 percent of depletions on average. He encouraged the legislature to fully fund the Interstate Stream Commission in its efforts to comply with the federal Endangered Species Act of 1973 (ESA), and he stressed the need to replace the 2003 biological opinion that governs recovery efforts for the endangered silvery minnow with one that is more adaptive to changing conditions. He went on to discuss various MRGCD priorities, such as meeting irrigation demands, improving intergovernmental partnerships and ESA compliance. Mr. Hamman also talked about the MRGCD's partnership with the Office of the State Engineer (OSE) to help manage water operations and ensure ESA compliance.

Mr. Hamman also reported on the Mid-Rio Grande Levee Task Force, noting that the task force has not met yet in 2015 but is trying to schedule a meeting before the end of the year. He also discussed the progress on various levee projects and said that the projected costs for completing all levees are approximately $750 million.

Discussion with the committee concerned the following:

- water banking process and protection of senior water rights holders;
- MRGCD rights are not subject to forfeiture;
- there are approximately 3,000 to 4,000 acre-feet in the district's water bank;
- the MRGCD uses some shortage-sharing techniques;
- the MRGCD's property tax authority;
- salt cedar, Russian olive and other phreatophytes do present a problem for the MRGCD;
- the U.S. Army Corps of Engineers decommissioned a levy in Bernalillo, and a portion of Bernalillo is now in the floodplain; and
- the U.S. Army Corps of Engineers is proposing a massive levee reconstruction project, and the MRGCD is providing some funding for the project.

Litigation Update and Administrative Permit Application Backlog Reduction

Sarah Bond, Office of the Attorney General (OAG), updated the committee on litigation in the United States Supreme Court between New Mexico, Colorado and Texas. She explained that a special master for the Supreme Court heard oral arguments on August 19 regarding a New Mexico motion to dismiss the case, as well as a motion to intervene by the Elephant Butte Irrigation District, but no decision had been made yet. Ms. Bond went on to discuss billing issues regarding the special master, explaining that the Supreme Court is requiring each state to pay a percentage of the special master's bill. She said that New Mexico is responsible for 37.5 percent of the total bill, and the state must pay it. She also said that the state is on hold until a decision on the motions is issued, and after that, the case could still take years to resolve. Ms. Bond explained that the next step in the process is for the special master to issue a report making recommendations on the motions, on which the parties are able to comment.

Stephen R. Farris, OAG, said that the special master's billing report indicated that the special master is drafting a report on motions, which could be ready before the end of the year.

Questions and comments from the committee included:

- the special master bills by the hour, which all litigants are responsible for paying;
- the attorney general was present and made comments at the most recent hearing in New Orleans;
- the 2008 operating agreement between Elephant Butte Irrigation District and El Paso County Water Improvement District Number One changed the way water below Elephant Butte is allocated;
- litigation in the region affects farmers and creates uncertainty for them;
- if the special master does not rule in favor of New Mexico's motions to dismiss, the case could go on for years;
- New Mexico farmers on the lower Rio Grande are concerned with Texas pumping water and with degradation in both surface and ground water quality; and
- legislators will continue to be briefed on any developments.

John Romero, OSE, explained how the office is addressing the backlog in applications for water rights permit changes. Mr. Romero said that the OSE had looked at ways of streamlining the process over the past year, such as developing a process to review applications within 10 days of submission and returning incomplete applications, which he said has yielded a positive result. He also pointed out that the OSE processes about 65,000 transactions per year, not all of which are water rights applications. Mr. Romero indicated that the OSE has made a commitment to reduce any backlog, although he also noted that recent drought conditions appear to have caused an increase in all types of applications being submitted to the OSE. He also explained that some of the backlog had come from a perfect storm of increased applications in two districts coupled with agency staff retirements, noting that the two districts, District 2 in Las Cruces and District 4 in Roswell, were also two of the largest districts in the state. Mr. Romero also discussed other efforts to reduce application backlogs, such as the creation of pamphlets and having junior staff help with application processing. He also said that productivity, particularly in District 2, has been increasing.

Questions and comments from the committee included:

- the backlog in District 4, which has gone down in the past year;
- there are several OSE staff positions that are currently not filled;
- nondomestic applications include applications for commercial, industrial and mining uses;
- the effect of transitioning from paper forms and processes to digital forms and electronic processes;
- the OSE has a system to determine valid water rights in the middle Rio Grande;
- a 10-day return policy on incomplete applications has worked well;
- recourse for well owners with lost drilling logs and wells drilled deeper than they were permitted; and
- definitions of creeks versus rivers involve the three main characterizations of waterways: ephemeral, intermittent and perennial.

Active Water Resource Management Implementation Update

Tom Blaine, state engineer, gave a brief history of Active Water Resource Management (AWRM), noting that the New Mexico Supreme Court's upholding of its constitutionality in late 2012 has paved the way for implementation and development of district-specific rules. He discussed the development of district-specific rules and explained that the rules would be implemented in phases, rather than all at once. Mr. Blaine also discussed other elements of AWRM, particularly metering and its usefulness as a water-management tool. He discussed installation of meters in several basins, ongoing plans for meters in other basins, legislative funding for current efforts and future funding requirements. Mr. Blaine also discussed development and implementation of district-specific regulations, noting that implementation of regulations in the Nambe/Pojoaque basin would help the OSE identify challenges that it will likely face in other basins. He also discussed AWRM in relation to helping the OSE promote

expedited marketing and sale of water rights, which he said would have to be a part of regulations in other basins, such as the lower Rio Grande.

Questions and comments from the committee included:

- metering costs and responsibilities may differ between surface and ground water diversions;
- meters are required on all new wells, although metering of all wells may be a good idea;
- a moratorium on supplemental wells in the middle Rio Grande;
- financial and monitoring responsibility for meters in the middle and lower Rio Grande;
- water banking and the complexity of banking certain water rights;
- water rights depletion versus diversion, particularly as it relates to drip irrigation systems and demonstrable water savings;
- publication of water rights in each district;
- the OSE favors the use of shortage-sharing agreements to priority calls;
- for expedited water rights marketing to work, the OSE has to have accurate records of water rights; and
- the time frame for completion of implementation of AWRM in various basins.

The committee recessed at 5:00 p.m.

Friday, November 6

The committee reconvened at 9:00 a.m. in Room 307 of the State Capitol.

Rio Grande Trail Commission Report

David Martin, secretary, Energy, Minerals and Natural Resources Department, reported on the proposed Rio Grande Trail. He explained that a bill passed by the legislature and signed by the governor created the Rio Grande Trail Commission, which will identify a trail alignment along the Rio Grande from Texas to Colorado and facilitate negotiations with landowners and define facilities and enhancements. Secretary Martin also provided the committee with an overview of the commission's makeup and the commissioners' backgrounds, including advisory legislative members and invited representatives from federal entities. He also listed the commission's required meetings, concluding in December 2015 with recommendations to federal, state and local entities regarding a proposed southern trail.

Questions and comments from the committee included:

- once completed, there will be approximately 500 miles of trail on both public and private lands;
- the potential uses of the trail once it is established, such as camping, fishing, outdoor fires, biking and running;

- public and private funding sources;
- negotiations with private landowners are under way;
- completion will be determined by the planning process and resulting requests for proposals regarding trail alignment, which will be issued in December 2015;
- coordination with various property owners;
- maintenance of existing, established trail segments;
- involvement of the community in the planning process is crucial;
- user fees will likely be used for ongoing maintenance of the trail; and
- ongoing concerns about funding, considering that several rest areas around the state remain closed due to lack of funding.

Committee Business

On a motion made, seconded and passed without objection, the committee endorsed a letter on behalf of the committee to Laura McCarthy, director of conservation programs for The Nature Conservancy, requesting The Nature Conservancy and the New Mexico Forest Industry Association to do research on securing sustainable funding sources for forest and watershed restoration in New Mexico.

The committee adopted without objection the minutes from the August-September meeting and the October meeting.

Proposed Legislation

By a vote of five in favor and eight opposed, the committee failed to endorse a bill (.202191.1) extending the solar tax credit.

The committee unanimously approved endorsement of a bill (.202272.1) appropriating $1,724,000 for ground water mapping in northeastern New Mexico.

The committee unanimously approved endorsement of a bill (.201925.1) appropriating $200,000 for boll weevil and pink bollworm monitoring.

By a vote of nine in favor and two opposed, the committee approved endorsement of a bill (.202006.1) changing the purpose of the Big Game Depredation Damage Fund to include financial compensation of landowners for the financial damages caused by big game.

By a vote of nine in favor and one opposed, the committee approved endorsement of a bill (.202382.1) authorizing the New Mexico Department of Agriculture to adopt rules for industrial hemp research.

Aamodt Settlement Update

Charles J. Dorame, chair, Northern Pueblos Tributary Water Rights Association (NPTWRA), provided the committee with a brief background on the NPTWRA, explaining that the pueblos of Nambe, Pojoaque, San Ildefonso and Tesuque formed the association to address

areas of mutual concern to the pueblos in the Aamodt Indian water rights settlement process. He also explained that the pueblos are continuing to work through the association on implementation of the settlement. Mr. Dorame went on to discuss the settlement and its benefits, including that it:

- brings an end to litigation that has gone on for over 40 years;
- provides a system and framework for cooperation among pueblo and non-pueblo users for sharing limited water resources;
- brings over $100 million of federal money into the valley;
- brings over 4,000 acre-feet of additional water to the valley for use by pueblo and non-pueblo water users at no cost to valley residents; and
- recognizes and secures the pueblos' water rights and rights of existing water users.

Mr. Dorame pointed out that the settlement does not take water rights from any existing water users, but it secures those rights in a way that ensures continued access to water by all water users. He also noted that it does not require any individual to connect to the regional water system, as connecting to the system is voluntary.

Mr. Dorame went on to note that the settlement is complex and that much work still has to be done before it is fully implemented. He provided the committee with an overview of the various tasks that must be completed, such as filing documents in federal court, working with Santa Fe County on formation of the regional water authority and drafting a set of uniform rules for administration of water rights.

Mr. Dorame also discussed funding obligations for the settlement, noting that the state's portion of the funding is $50 million and must be paid before construction of the regional water system begins. He urged the committee to ensure that the state fulfills its commitment to funding its share of the settlement.

Tony Flores, John Utton and Bruce Frederick testified on behalf of Santa Fe County. Mr. Flores, who is the Santa Fe County deputy county manager, said that the county fully supports the settlement. Mr. Utton explained that the settlement only addresses the pueblo claims in the area, not everyone else's. The pueblos' original claims amounted to nearly all of the water available in the basin, he said. With the settlement, however, the pueblos are giving up much of that original claim, and another 3,600 acre-feet per year will be brought into the basin to meet the needs of the area's water users. Consequently, he explained, Santa Fe County supports the settlement because it is in the best interest of both pueblo and non-pueblo water rights owners. Mr. Utton and Mr. Frederick noted that the county has made substantial financial contributions to the settlement, helped with its implementation and will be the operator and fiscal agent of the new water utility. Mr. Frederick said that while the county does have concerns about right-of-way issues with roads in the Pueblo of San Ildefonso area, the county hopes to have those issues resolved before the county has to make appropriations for the implementation of the settlement.

Larry White, an attorney for non-pueblo defendants in the Tesuque basin, explained that the pueblos originally claimed first priority for 9,000 acres, which was based on the practicably irrigable acreage (PIA) standard. This was reduced to 1,094 acres in 1987 under the historically irrigated acreage standard, he explained; but even using this standard, which would have preserved up to 350 acres for the Pueblo of Tesuque, would have resulted in having to shut down all of the acequias in Tesuque. Under the settlement, he said, the pueblo will get first priority for 71 acres and third priority on the rest, thus protecting the existing rights of non-pueblo water users, as well as those of the pueblo.

Arianne Singer, OSE, said that the settlement marks the end of the Aamodt adjudication, which began in 1966. She explained that the non-pueblo rights were adjudicated in the 1970s, while the settlement adjudicates the pueblo rights. Under the settlement, she said, non-pueblo rights are protected, with an additional 2,500 acre-feet of water brought into the basin for pueblo use and 1,100 acre-feet for non-pueblo users. In addition to providing for a clean, reliable source of water for residents, the new regional water system will also provide much-needed access to water for firefighters in the region, she added. Also, as part of the settlement, the pueblos have agreed that the state engineer will be the water master for the region, she said.

Representative Carl Trujillo also discussed the Aamodt settlement, saying that the population in the basin is made up of 6,590 non-pueblo inhabitants and 1,465 pueblo inhabitants. He also discussed the number of domestic wells in the basin, pointing out that most of them are less than 100 feet deep. Representative Trujillo went on to discuss the construction and management of the regional water system and several other components of the settlement, such as non-native water rights being subject to a priority call and the division of water rights between pueblo and non-pueblo users. He also discussed concerns his constituents have voiced regarding the settlement, such as the 800 objections to the settlement that have been filed and the high number of packets mailed by the OSE to residents in the basin that were returned, as well as how non-responders will be treated in the adjudication process. In addition, he expressed concern over rights of way over pueblo lands, how that has affected his constituents and the need to address these concerns before the settlement is implemented.

Discussion and comments from the committee included:

- the projected cost per household for 5,000 gallons of water per month is approximately $45.00, compared to $65.00 per month for a well amortized over 30 years;
- rights of way for the regional water system are a non-issue because the easements granted under the settlement for the system are for the life of the project; and
- Santa Fe County wants the right-of-way issues for roads over pueblo lands to be resolved at the same time as the Aamodt water issues are resolved.

Adjournment

There being no further business, the committee adjourned at 3:45 p.m.

ENDORSED LEGISLATION

SENATE BILL

52ND LEGISLATURE - STATE OF NEW MEXICO - SECOND SESSION, 2016

INTRODUCED BY

FOR THE WATER AND NATURAL RESOURCES COMMITTEE

AN ACT

MAKING AN APPROPRIATION FOR THE BUREAU OF GEOLOGY AND MINERAL RESOURCES TO STUDY AND MAP THE GROUND WATER AQUIFERS UNDERLYING COLFAX, HARDING, MORA AND UNION COUNTIES.

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

SECTION 1. APPROPRIATION.--One million seven hundred twenty-four thousand dollars ($1,724,000) is appropriated from the general fund to the board of regents of New Mexico institute of mining and technology for expenditure in fiscal year 2017 and subsequent fiscal years for the bureau of geology and mineral resources to conduct a hydrogeologic study of and map the ground water aquifers underlying Colfax, Harding, Mora and Union counties. Any unexpended or unencumbered balance remaining at the end of a fiscal year shall not revert to the general fund.

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HOUSE BILL

52ND LEGISLATURE - STATE OF NEW MEXICO - SECOND SESSION, 2016

INTRODUCED BY

AN ACT

MAKING AN APPROPRIATION TO THE NEW MEXICO DEPARTMENT OF AGRICULTURE TO MONITOR THE BOLL WEEVIL AND PINK BOLLWORM SITUATION IN SOUTH CENTRAL AND SOUTHWEST NEW MEXICO.

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

SECTION 1. APPROPRIATION.--Fifty thousand dollars ($50,000) is appropriated from the general fund to the board of regents of New Mexico state university for expenditure in fiscal year 2017 for the New Mexico department of agriculture to monitor the boll weevil and pink bollworm situation in south central and southwest New Mexico. Any unexpended or unencumbered balance remaining at the end of fiscal year 2017 shall revert to the general fund.

.201925.1

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HOUSE BILL

52ND LEGISLATURE - STATE OF NEW MEXICO - SECOND SESSION, 2016

INTRODUCED BY

DISCUSSION DRAFT

AN ACT

RELATING TO GAME AND FISH; AMENDING SECTION 17-3-13.4 NMSA 1978 (BEING LAWS 2001, CHAPTER 213, SECTION 2) TO CHANGE THE PURPOSE OF THE BIG GAME DEPREDATION DAMAGE FUND TO INCLUDE COMPENSATION OF LANDOWNERS FOR THE FINANCIAL DAMAGES CAUSED BY BIG GAME.

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

SECTION 1. Section 17-3-13.4 NMSA 1978 (being Laws 2001, Chapter 213, Section 2) is amended to read:

"17-3-13.4. BIG GAME DEPREDATION DAMAGE FUND--CREATION--EXPENDITURE.--

A. The "big game depredation damage fund" is created in the state treasury. The fund consists of appropriations made to the fund, revenues received by the department of game and fish from the sale of big game depredation damage stamps and earnings from the investment of

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the fund. The fund shall be administered by the department and money in the fund is appropriated to the department to carry out the provisions of Subsection B of this section. Payments from the fund shall be by warrant of the secretary of finance and administration upon vouchers signed by the director of the department or [~~his~~] the director's authorized representative. Balances in the fund shall not revert to any other fund.

B. The department of game and fish shall, by rule, establish a program to correct damage to federal, state or private land caused by big game, [~~and~~] to prevent such damage in the future and to compensate landowners for the financial damages caused by big game. Pursuant to rules adopted by the department, expenditures from the big game depredation damage fund shall be made by the department to carry out the established program; provided that money in the fund shall not be expended for any administrative costs."

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SENATE BILL

52ND LEGISLATURE - STATE OF NEW MEXICO - SECOND SESSION, 2016

INTRODUCED BY

FOR THE WATER AND NATURAL RESOURCES COMMITTEE AND

THE COURTS, CORRECTIONS AND JUSTICE COMMITTEE

AN ACT

RELATING TO AGRICULTURE; ENACTING A NEW SECTION OF CHAPTER 76 NMSA 1978 TO PROVIDE AUTHORIZATION FOR THE NEW MEXICO DEPARTMENT OF AGRICULTURE TO ADOPT RULES FOR RESEARCH ON INDUSTRIAL HEMP; PROVIDING FOR THE ESTABLISHMENT OF THE NEW MEXICO INDUSTRIAL HEMP RESEARCH AND DEVELOPMENT FUND.

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

SECTION 1. A new section of Chapter 76 NMSA 1978 is enacted to read:

"[NEW MATERIAL] INDUSTRIAL HEMP RESEARCH--NEW MEXICO DEPARTMENT OF AGRICULTURE.--

A. As used in this section, "industrial hemp" means the plant Cannabis sativa L. and any part of the plant, whether growing or not, containing a delta-9-tetrahydrocannabinol concentration of no more than three-tenths percent on a dry

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weight basis.

B. The intent of this section is to bring New Mexico into compliance with federal law.

C. Notwithstanding any other provision of law to the contrary, the New Mexico department of agriculture shall issue licenses pursuant to rules enacted under Subsection D of this section to grow industrial hemp for research and development purposes, including agricultural, agronomic, ecological, processing, sales and marketing research.

D. The director of the New Mexico department of agriculture shall adopt rules to establish and carry out the provisions of this section, including requirements for licensure, training of law enforcement personnel, inspection, recordkeeping, fees not to exceed program costs and compliance processes. An institution of higher education, person or business that plans to grow industrial hemp seed or industrial hemp fiber shall obtain a grower's license by submitting an application to the New Mexico department of agriculture pursuant to promulgated rules.

E. A person who holds a license issued pursuant to this section may grow industrial hemp for commercial or research and development purposes, including agricultural, agronomic, ecological, processing, sales and marketing research.

F. New Mexico state university shall establish a

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"New Mexico industrial hemp research and development fund". The fund consists of fees collected by the New Mexico department of agriculture for administration of the industrial hemp research and development program, donations, grants and income earned from investment of the fund and money otherwise accruing to the fund. Money in the fund shall not revert to any other fund at the end of a fiscal year. The New Mexico department of agriculture shall administer the fund, and money in the fund is subject to appropriation by the legislature to the New Mexico department of agriculture to conduct related programs. Money in the fund shall be disbursed on warrants signed by the secretary of finance and administration pursuant to vouchers signed by the director of the New Mexico department of agriculture or the director's authorized representative."

SECTION 2. Section 30-31-2 NMSA 1978 (being Laws 1972, Chapter 84, Section 2, as amended) is amended to read:

"30-31-2. DEFINITIONS.--As used in the Controlled Substances Act:

A. "administer" means the direct application of a controlled substance by any means to the body of a patient or research subject by a practitioner or the practitioner's agent;

B. "agent" includes an authorized person who acts on behalf of a manufacturer, distributor or dispenser. It does not include a common or contract carrier, public warehouseperson or employee of the carrier or warehouseperson;

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C. "board" means the board of pharmacy;

D. "bureau" means the narcotic and dangerous drug section of the criminal division of the United States department of justice, or its successor agency;

E. "controlled substance" means a drug or substance listed in Schedules I through V of the Controlled Substances Act or rules adopted thereto;

F. "counterfeit substance" means a controlled substance that bears the unauthorized trademark, trade name, imprint, number, device or other identifying mark or likeness of a manufacturer, distributor or dispenser other than the person who in fact manufactured, distributed or dispensed the controlled substance;

G. "deliver" means the actual, constructive or attempted transfer from one person to another of a controlled substance or controlled substance analog, whether or not there is an agency relationship;

H. "dispense" means to deliver a controlled substance to an ultimate user or research subject pursuant to the lawful order of a practitioner, including the administering, prescribing, packaging, labeling or compounding necessary to prepare the controlled substance for that delivery;

I. "dispenser" means a practitioner who dispenses and includes hospitals, pharmacies and clinics where controlled

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substances are dispensed;

J. "distribute" means to deliver other than by administering or dispensing a controlled substance or controlled substance analog;

K. "drug" or "substance" means substances recognized as drugs in the official United States pharmacopoeia, official homeopathic pharmacopoeia of the United States or official national formulary or any respective supplement to those publications. It does not include devices or their components, parts or accessories;

L. "hashish" means the resin extracted from any part of marijuana, whether growing or not, and every compound, manufacture, salt, derivative, mixture or preparation of such resins;

M. "manufacture" means the production, preparation, compounding, conversion or processing of a controlled substance or controlled substance analog by extraction from substances of natural origin or independently by means of chemical synthesis or by a combination of extraction and chemical synthesis and includes any packaging or repackaging of the substance or labeling or relabeling of its container, except that this term does not include the preparation or compounding of a controlled substance:

(1) by a practitioner as an incident to administering or dispensing a controlled substance in the

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course of the practitioner's professional practice; or

(2) by a practitioner, or by the practitioner's agent under the practitioner's supervision, for the purpose of or as an incident to research, teaching or chemical analysis and not for sale;

N. "marijuana" means all parts of the plant cannabis, including any and all varieties, species and subspecies of the genus Cannabis, whether growing or not, the seeds thereof and every compound, manufacture, salt, derivative, mixture or preparation of the plant or its seeds. It does not include the mature stalks of the plant, hashish, tetrahydrocannabinols extracted or isolated from marijuana, fiber produced from the stalks, oil or cake made from the seeds of the plant, any other compound, manufacture, salt, derivative, mixture or preparation of the mature stalks, fiber, oil or cake, or the sterilized seed of the plant that is incapable of germination <u>or the plant Cannabis sativa L. and any part of the plant, whether growing or not, containing a delta-9-tetrahydrocannabinol concentration of no more than three-tenths percent on a dry weight basis</u>;

O. "narcotic drug" means any of the following, whether produced directly or indirectly by extraction from substances of vegetable origin or independently by means of chemical synthesis or by a combination of extraction and chemical synthesis:

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(1) opium and opiate and any salt, compound, derivative or preparation of opium or opiate;

(2) any salt, compound, isomer, derivative or preparation that is a chemical equivalent of any of the substances referred to in Paragraph (1) of this subsection, except the isoquinoline alkaloids of opium;

(3) opium poppy and poppy straw, including all parts of the plant of the species Papaver somniferum L. except its seeds; or

(4) coca leaves and any salt, compound, derivative or preparation of coca leaves, any salt, compound, isomer, derivative or preparation that is a chemical equivalent of any of these substances except decocainized coca leaves or extractions of coca leaves that do not contain cocaine or ecgonine;

P. "opiate" means any substance having an addiction-forming or addiction-sustaining liability similar to morphine or being capable of conversion into a drug having addiction-forming or addiction-sustaining liability. "Opiate" does not include, unless specifically designated as controlled under Section 30-31-5 NMSA 1978, the dextrorotatory isomer of 3-methoxy-n-methylmorphinan and its salts, dextromethorphan. "Opiate" does include its racemic and levorotatory forms;

Q. "person" means an individual, partnership, corporation, association, institution, political subdivision,

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government agency or other legal entity;

R. "practitioner" means a physician, certified advanced practice chiropractic physician, doctor of oriental medicine, dentist, physician assistant, certified nurse practitioner, clinical nurse specialist, certified nurse-midwife, prescribing psychologist, veterinarian, euthanasia technician, pharmacist, pharmacist clinician or other person licensed or certified to prescribe and administer drugs that are subject to the Controlled Substances Act;

S. "prescription" means an order given individually for the person for whom is prescribed a controlled substance, either directly from a licensed practitioner or the practitioner's agent to the pharmacist, including by means of electronic transmission, or indirectly by means of a written order signed by the prescriber, bearing the name and address of the prescriber, the prescriber's license classification, the name and address of the patient, the name and quantity of the drug prescribed, directions for use and the date of issue and in accordance with the Controlled Substances Act or rules adopted thereto;

T. "scientific investigator" means a person registered to conduct research with controlled substances in the course of the person's professional practice or research and includes analytical laboratories;

U. "ultimate user" means a person who lawfully

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possesses a controlled substance for the person's own use or for the use of a member of the person's household or for administering to an animal under the care, custody and control of the person or by a member of the person's household;

V. "drug paraphernalia" means all equipment, products and materials of any kind that are used, intended for use or designed for use in planting, propagating, cultivating, growing, harvesting, manufacturing, compounding, converting, producing, processing, preparing, testing, analyzing, packaging, repackaging, storing, containing, concealing, injecting, ingesting, inhaling or otherwise introducing into the human body a controlled substance or controlled substance analog in violation of the Controlled Substances Act. It includes:

(1) kits used, intended for use or designed for use in planting, propagating, cultivating, growing or harvesting any species of plant that is a controlled substance or controlled substance analog or from which a controlled substance can be derived;

(2) kits used, intended for use or designed for use in manufacturing, compounding, converting, producing, processing or preparing controlled substances or controlled substance analogs;

(3) isomerization devices used, intended for use or designed for use in increasing the potency of any

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species of plant that is a controlled substance;

(4) testing equipment used, intended for use or designed for use in identifying or in analyzing the strength, effectiveness or purity of controlled substances or controlled substance analogs;

(5) scales or balances used, intended for use or designed for use in weighing or measuring controlled substances or controlled substance analogs;

(6) diluents and adulterants, such as quinine hydrochloride, mannitol, mannite dextrose and lactose, used, intended for use or designed for use in cutting controlled substances or controlled substance analogs;

(7) separation gins and sifters used, intended for use or designed for use in removing twigs and seeds from, or in otherwise cleaning and refining, marijuana;

(8) blenders, bowls, containers, spoons and mixing devices used, intended for use or designed for use in compounding controlled substances or controlled substance analogs;

(9) capsules, balloons, envelopes and other containers used, intended for use or designed for use in packaging small quantities of controlled substances or controlled substance analogs;

(10) containers and other objects used, intended for use or designed for use in storing or concealing

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controlled substances or controlled substance analogs;

(11) hypodermic syringes, needles and other objects used, intended for use or designed for use in parenterally injecting controlled substances or controlled substance analogs into the human body;

(12) objects used, intended for use or designed for use in ingesting, inhaling or otherwise introducing marijuana, cocaine, hashish or hashish oil into the human body, such as:

(a) metal, wooden, acrylic, glass, stone, plastic or ceramic pipes, with or without screens, permanent screens, hashish heads or punctured metal bowls;

(b) water pipes;

(c) carburetion tubes and devices;

(d) smoking and carburetion masks;

(e) roach clips, meaning objects used to hold burning material, such as a marijuana cigarette, that has become too small to hold in the hand;

(f) miniature cocaine spoons and cocaine vials;

(g) chamber pipes;

(h) carburetor pipes;

(i) electric pipes;

(j) air-driven pipes;

(k) chilams;

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(l) bongs; or

(m) ice pipes or chillers; and

(13) in determining whether an object is drug paraphernalia, a court or other authority should consider, in addition to all other logically relevant factors, the following:

(a) statements by the owner or by anyone in control of the object concerning its use;

(b) the proximity of the object, in time and space, to a direct violation of the Controlled Substances Act or any other law relating to controlled substances or controlled substance analogs;

(c) the proximity of the object to controlled substances or controlled substance analogs;

(d) the existence of any residue of a controlled substance or controlled substance analog on the object;

(e) instructions, written or oral, provided with the object concerning its use;

(f) descriptive materials accompanying the object that explain or depict its use;

(g) the manner in which the object is displayed for sale; and

(h) expert testimony concerning its use;

W. "controlled substance analog" means a substance

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other than a controlled substance that has a chemical structure substantially similar to that of a controlled substance in Schedule I, II, III, IV or V or that was specifically designed to produce effects substantially similar to that of controlled substances in Schedule I, II, III, IV or V. Examples of chemical classes in which controlled substance analogs are found include the following:

(1) phenethylamines;

(2) N-substituted piperidines;

(3) morphinans;

(4) ecgonines;

(5) quinazolinones;

(6) substituted indoles; and

(7) arylcycloalkylamines.

Specifically excluded from the definition of "controlled substance analog" are those substances that are generally recognized as safe and effective within the meaning of the Federal Food, Drug, and Cosmetic Act or have been manufactured, distributed or possessed in conformance with the provisions of an approved new drug application or an exemption for investigational use within the meaning of Section 505 of the Federal Food, Drug, and Cosmetic Act;

X. "human consumption" includes application, injection, inhalation, ingestion or any other manner of introduction;

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Y. "drug-free school zone" means a public school, parochial school or private school or property that is used for a public, parochial or private school purpose and the area within one thousand feet of the school property line, but it does not mean any post-secondary school; and

Z. "valid practitioner-patient relationship" means a professional relationship, as defined by the practitioner's licensing board, between the practitioner and the patient."

SECTION 3. Section 30-31-6 NMSA 1978 (being Laws 1972, Chapter 84, Section 6, as amended) is amended to read:

"30-31-6. SCHEDULE I.--The following controlled substances are included in Schedule I:

A. any of the following opiates, including their isomers, esters, ethers, salts, and salts of isomers, esters and ethers, unless specifically exempted, whenever the existence of these isomers, esters, ethers and salts is possible within the specific chemical designation:

(1) acetylmethadol;

(2) allylprodine;

(3) alphacetylmethadol;

(4) alphameprodine;

(5) alphamethadol;

(6) benzethidine;

(7) betacetylmethadol;

(8) betameprodine;

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(9) betamethadol;

(10) betaprodine;

(11) clonitazene;

(12) dextromoramide;

(13) dextrorphan;

(14) diampromide;

(15) diethylthiambutene;

(16) dimenoxadol;

(17) dimepheptanol;

(18) dimethylthiambutene;

(19) dioxaphetyl butyrate;

(20) dipipanone;

(21) ethylmethylthiambutene;

(22) etonitazene;

(23) etoxeridine;

(24) furethidine;

(25) hydroxypethidine;

(26) ketobemidone;

(27) levomoramide;

(28) levophenacylmorphan;

(29) morpheridine;

(30) noracymethadol;

(31) norlevorphanol;

(32) normethadone;

(33) norpipanone;

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(34) phenadoxone;

(35) phenampromide;

(36) phenomorphan;

(37) phenoperidine;

(38) piritramide;

(39) proheptazine;

(40) properidine;

(41) racemoramide; and

(42) trimeperidine;

B. any of the following opium derivatives, their salts, isomers and salts of isomers, unless specifically exempted, whenever the existence of these salts, isomers and salts of isomers is possible within the specific chemical designation:

(1) acetorphine;

(2) acetyldihydrocodeine;

(3) benzylmorphine;

(4) codeine methylbromide;

(5) codeine-N-oxide;

(6) cyprenorphine;

(7) desomorphine;

(8) dihydromorphine;

(9) etorphine;

(10) heroin;

(11) hydromorphinol;

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(12) methyldesorphine;

(13) methyldihydromorphine;

(14) morphine methylbromide;

(15) morphine methylsulfonate;

(16) morphine-N-oxide;

(17) myrophine;

(18) nicocodeine;

(19) nicomorphine;

(20) normorphine;

(21) pholcodine; and

(22) thebacon;

C. any material, compound, mixture or preparation that contains any quantity of the following hallucinogenic substances, their salts, isomers and salts of isomers, unless specifically exempted, whenever the existence of these salts, isomers and salts of isomers is possible within the specific chemical designation:

(1) 3,4-methylenedioxy amphetamine;

(2) 5-methoxy-3,4-methylenedioxy amphetamine;

(3) 3,4,5-trimethoxy amphetamine;

(4) bufotenine;

(5) diethyltryptamine;

(6) dimethyltryptamine;

(7) 4-methyl-2,5-dimethoxy amphetamine;

(8) ibogaine;

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(9) lysergic acid diethylamide;

(10) marijuana;

(11) mescaline;

(12) peyote, except as otherwise provided in the Controlled Substances Act;

(13) N-ethyl-3-piperidyl benzilate;

(14) N-methyl-3-piperidyl benzilate;

(15) psilocybin;

(16) psilocyn;

(17) tetrahydrocannabinols;

(18) hashish;

(19) synthetic cannabinoids, including:

(a) 1-[2-(4-(morpholinyl)ethyl]-3-(1-naphthoyl)indole;

(b) 1-butyl-3-(1-napthoyl)indole;

(c) 1-hexyl-3-(1-naphthoyl)indole;

(d) 1-pentyl-3-(1-naphthoyl)indole;

(e) 1-pentyl-3-(2-methoxyphenylacetyl) indole;

(f) cannabicyclohexanol (CP 47, 497 and homologues: 5-(1,1-dimethylheptyl)-2-[(1R,3S) -3-hydroxycyclohexyl]-phenol (CP-47,497); and 5-(1, 1-dimethyloctyl)-2-[(1R,3S)-3-hydroxycyclohexyl]-phenol;

(g) 6aR,10aR)-9-(hydroxymethyl) -6,6-dimethyl-3-(2-methyloctan-2-yl)-6a,7,10,

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10a-tetrahydrobenzo[c]chromen-1-ol);

(h) dexanabinol, (6aS,10aS)-9-(hydroxymethyl)-6,6-dimethyl-3-(2-methyloctan-2-yl)-6a,7,10,10a-tetrahydrobenzo[c]chromen-1-ol;

(i) 1-pentyl-3-(4-chloro naphthoyl) indole;

(j) (2-methyl-1-propyl-1H-indol-3-yl)-1-naphthalenyl-methanone; and

(k) 5-(1,1-dimethylheptyl)-2-(3-hydroxy cyclohexyl)-phenol;

(20) 3,4-methylenedioxymethcathinone;

(21) 3,4-methylenedioxypyrovalerone;

(22) 4-methylmethcathinone;

(23) 4-methoxymethcathinone;

(24) 3-fluoromethcathinone; and

(25) 4-fluoromethcathinone;

D. the enumeration of peyote as a controlled substance does not apply to the use of peyote in bona fide religious ceremonies by a bona fide religious organization, and members of the organization so using peyote are exempt from registration. Any person who manufactures peyote for or distributes peyote to the organization or its members shall comply with the federal Comprehensive Drug Abuse Prevention and Control Act of 1970 and all other requirements of law;

E. the enumeration of marijuana,

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tetrahydrocannabinols or chemical derivatives of tetrahydrocannabinol as Schedule I controlled substances does not apply to:

(1) cultivation of industrial hemp by qualified entities pursuant to rules adopted by the New Mexico department of agriculture; or

(2) the use of marijuana, tetrahydrocannabinols or chemical derivatives of tetrahydrocannabinol by certified patients pursuant to the Controlled Substances Therapeutic Research Act or by qualified patients pursuant to the provisions of the Lynn and Erin Compassionate Use Act; and

F. controlled substances added to Schedule I by rule adopted by the board pursuant to Section 30-31-3 NMSA 1978."

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