WATER AND NATURAL RESOURCES COMMITTEE

2004
REPORT

Santa Fe, New Mexico
December 2004
File No. 205.176-04

2004 APPROVED WORK PLAN
for the
WATER AND NATURAL RESOURCES COMMITTEE

Committee Members:

Rep. Joe M Stell, Chair
Sen. Carlos R. Cisneros, Vice Chair
Sen. Sue Wilson Beffort
Sen. Joseph J. Carraro
Rep. Joseph Cervantes
Sen. Dede Feldman
Sen. Mary Jane M. Garcia
Rep. Dona G. Irwin
Rep. Larry A. Larrañaga
Rep. James Roger Madalena
Rep. Brian K. Moore
Rep. Andy Nunez
Sen. Mary Kay Papen
Sen. Shannon Robinson
Sen. H. Diane Snyder
Rep. Mimi Stewart
Rep. Don Tripp
Rep. Robert White

Advisory Members:

Rep. Ray Begaye
Rep. Anna M. Crook
Sen. Clinton D. Harden, Jr.
Sen. Timothy Z. Jennings
Sen. Gay G. Kernan
Rep. Rhonda S. King
Sen. Steve Komadina
Rep. Ben Lujan
Rep. Danice Picraux
Sen. Leonard Lee Rawson
Sen. Nancy Rodriguez
Rep. Henry Kiki Saavedra
Sen. Leonard Tsosie
Rep. Peter F. Wirth
Rep. Eric A. Youngberg

Work Plan

The water and natural resources committee proposes to focus on three primary topics: legal issues; water conservation; and financing water needs. With respect to the legal issues, the state attorney general is representing the state in federal court in several cases related to the state's water authority and will represent the state in interstate compact litigation. The committee anticipates the need for status reports on interstate compact compliance, endangered species and other legal aspects of water management.

The legislature has considered many measures to enhance the state's water conserving capacity, including a potential strategic water reserve, tax incentives, water planning and improving water use efficiencies. The committee proposes to revisit these and other water conservation measures.

Finally, the legislature created the state water trust fund, but the fund has not received permanent finances. The need for permanent funding sources to meet the state's water needs has challenged the legislature for several sessions and will reappear in the 2005 session as well. In particular, the committee expects to hear about the governor's priorities for financing water capital projects.

Approved Meeting Schedule and Budget

June 24 & 25	Santa Fe	
July 27 & 28	Clovis	
August 10 & 11	Albuquerque	
September 7 & 8	Taos	
October 3, 4 & 5	Silver City Deming Las Cruces	
November 11 & 12	Santa Fe	
	Total	*$40,000.00

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AGENDAS

TENTATIVE AGENDA
for the
WATER AND NATURAL RESOURCES COMMITTEE

June 24 - 25, 2004
Room 307
State Capitol

Thursday, June 24

10:00 a.m.	CALL TO ORDER —Representative Joe M Stell, Chair
10:15 a.m.	GOVERNOR RICHARDSON'S WATER PRIORITIES —Bill Hume, Director of Policy and Planning, Office of the Governor
11:30 a.m.	LUNCH
1:00 p.m.	EXECUTIVE SESSION ON LITIGATION ISSUES —Stephen Farris, Director, Water, Environment and Utilities Division, Office of the Attorney General —Esteven Lopez, Director, Interstate Stream Commission
1:45 p.m.	UPDATE ON LEGAL ISSUES —Stephen Farris, Director, Water, Environment and Utilities Division, Office of the Attorney General —Esteven Lopez, Director, Interstate Stream Commission
2:30 p.m.	STATUS OF NAVAJO WATER SETTLEMENT —Esteven Lopez, Director, Interstate Stream Commission
4:00 p.m.	STRATEGIC WATER RESERVE —Fred Nathan, Executive Director, Think New Mexico

Friday, June 25

9:00 a.m.	USE OF THE WATER INNOVATION APPROPRIATION —James Jimenez, Secretary of Finance and Administration
10:00 a.m.	COMMITTEE WORK PLAN
12:00 noon	ADJOURN

Revised: July 22, 2004

TENTATIVE AGENDA
for the
WATER AND NATURAL RESOURCES COMMITTEE

July 27-28, 2004
Board Room, Clovis Community College
Clovis

Tuesday, July 27

10:00 a.m.	CALL TO ORDER —Representative Joe M Stell, Chair
10:15 a.m.	COMMENTS ON STATE ENGINEER PROPOSED RULES —John D'Antonio, State Engineer —Steve Hernandez, Elephant Butte Irrigation District, Carlsbad Irrigation District —Jay Stein, Water Attorney, Stein and Brockman, P.A. —David Benavides, New Mexico Legal Aid —J.A. Olsen, Pecos Valley Artesian Conservancy District —Janet Jarrat, Farmer —Mike White, New Mexico Farm and Ranch Bureau
12:30 p.m.	LUNCH
2:00 p.m.	DROUGHT TASK FORCE STATUS REPORT —Anne Watkins, Special Assistant to the State Engineer
3:00 p.m.	PECOS RIVER SALT CEDAR REMOVAL STATUS REPORT —Debbie Hughes, Director, New Mexico Association of Conservation Districts
4:30 p.m.	RECESS

Wednesday, July 28

9:00 a.m.	UTE PIPELINE PROJECT —Scott Verhines, Project Manager —David Lansford, Mayor of Clovis —Orlando Ortega, Mayor of Portales

10:00 a.m.	GROUND WATER REGULATION —Representative Earlene Roberts
11:00 a.m.	NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMITTING PROGRAM —Charles Lundstrom, Department of Environment
12:00 noon	HYDROLOGY OF THE SACRAMENTO MOUNTAINS —Rick Baish, Otero Soil and Water Conservation District
	ADJOURN

TENTATIVE AGENDA
of the
WATER AND NATURAL RESOURCES COMMITTEE

August 10-11, 2004
Workforce Training Center
Albuquerque Technical-Vocational Institute
Rooms 101 and 103
5600 Eagle Rock Ave. NE (Alameda and I-25)
Albuquerque

Tuesday August 10

10:00 a.m.	CALL TO ORDER —Representative Joe Stell, Chair
	UNDECLARED GROUND WATER BASINS —John D'Antonio, State Engineer
11:30 a.m.	LUNCH
1:00 p.m.	INNOVATIVE WATER TECHNOLOGIES —Lynda Taylor, Sustainable Communities/ZERI-NM
2:00 p.m.	MIDDLE RIO GRANDE CONSERVANCY DISTRICT INNOVATIONS (MRGCD) —Subhas Shah, Chief Engineer, MRGCD —Sterling Grogan, Biologist, MRGCD
3:30 p.m.	SANTA FE DOMESTIC WELL ORDINANCE —Claudia Borchert, Water Resources Project Coordinator
4:30 p.m.	RECESS

Wednesday, August 11

9:00 a.m.	ALBUQUERQUE BERNALILLO COUNTY WATER UTILITY AUTHORITY —Mark S. Sanchez, Executive Director —John Stomp, Acting General Manager, Water Utility
10:00 a.m.	BOSQUE MANAGEMENT —Marilyn O'Leary, Utton Center, UNM —Cliff Crawford, Biology Professor, UNM —Sterling Grogan, Middle Rio Grande Conservancy
11:00 a.m.	ECONOMICS OF WATER UTILITIES —Janie Chermak, Economist, UNM
12:00 noon	WORKING LUNCH AND TOUR —Rio Grande Bosque —Candaleria Farm Irrigation Efficiency Improvements

2:30 p.m. ADJOURN

Revised: August 20, 2004

TENTATIVE AGENDA
for the
WATER AND NATURAL RESOURCES COMMITTEE

September 7-8, 2004
Sagebrush Inn
Taos

Tuesday, September 7

10:00 a.m. CALL TO ORDER
—Representative Joe M Stell, Chair

MOLYCORP SLOPE STABILITY UPDATE
—Leroy Apodaca, Director of Administrative Services, Molycorp
—Bill Sharer, Vice President of Environmental Services and Public Affairs, Molycorp

11:30 a.m. LUNCH

1:00 p.m. ACEQUIA ISSUES
—Paula Garcia, New Mexico Acequia Association

2:00 p.m. MUTUAL DOMESTIC ASSOCIATIONS' WATER RIGHTS
—Mary Humphrey, Attorney

3:00 p.m. CLOUD SEEDING
—Sig Silber, President, New Mexico Weather Modification Association (NMWMA)
—Walt Chapman, Secretary and Treasurer, NMWMA

4:00 p.m. WATER PROJECT FINANCING
—Mark Valenzuela, New Mexico Finance Authority

5:00 p.m. RECESS

Wednesday, September 8

9:00 a.m. WATER RESOURCE MODELING — LANL
—Charles Nylander, Program Manager, Risk Reduction and Environmental Stewardship Division, Los Alamos National Laboratory

—Dr. Elizabeth Keating, Technical Staff Member, Hydrology, Geochemistry and Geology Group, Earth and Environmental Sciences Division, LANL

10:00 a.m. WATER RESOURCE MODELING — SANDIA
—Mike Hightower, Distinguished Member Technical Staff, Energy and Infrastructure Systems, Sandia National Laboratories
—Howard Passell, Senior Member Technical Staff, Geohydrological Systems, Sandia National Laboratories

11:00 a.m. DOMESTIC WELLS AND WATER SUPPLY DEPLETIONS
—Patsy Sanchez, Director, Lincoln County Planning Office

12:00 noon INDIO HISPANO ACADEMY
—Felix Mauro Torres, Executive Director

1:00 p.m. ADJOURN

Revised: September 29, 2004

TENTATIVE AGENDA
for the
WATER AND NATURAL RESOURCES COMMITTEE

October 3-5, 2004
Silver City-Gila River
Deming/Las Cruces

Sunday, October 3
Silver City Environs (Meet at Grant County Administration Parking Lot, 1400 Highway 180 East)

12:30 p.m.	TOUR OF GILA
5:00 p.m.	RECESS

Monday, October 4
Learning Center, Pine Street and Country Club Road, Deming

9:00 a.m.	CALL TO ORDER —Representative Joe M Stell, Chair
	WATER RIGHTS ADJUDICATION — JUDICIAL IMPROVEMENTS —Judge Gerald Valentine
10:00 a.m.	WATER CONSERVATION PLANS AND WATER BANKING —John D'Antonio, State Engineer
11:00 a.m.	SOUTHWEST REGIONAL WATER PLAN —John Burkstaller, PE, Daniel B. Stevens, Inc.
12:00 noon	LUNCH
1:00 p.m.	SOUTHWEST WATER PLANNING GROUP —Vance Lee
2:00 p.m.	WATER RESOURCE APPLICATION PROJECT FOR SOUTH CENTRAL NEW MEXICO —Tom Springer, Vice Chair, South Central Mountain Resource Conservation and Development Council
3:00 p.m.	TOUR — WATER AND LAND CONSERVATION TECHNIQUES —Rick Holdridge, Deming Soil and Water Conservation District
5:00 p.m.	RECESS

Tuesday, October 5
Otero Room, Corbett Center, NMSU, Las Cruces

9:00 a.m.	THE GILA — ECONOMICS AND ECOLOGY OF A FREE-FLOWING STREAM —Dutch Salmon, Chair, Gila Conservation Coalition
10:00 a.m.	ON-SITE LIQUID WASTE ISSUES —Link Summers
11:00 a.m.	WATER RESOURCE PROTECTION ACT —Beth Bardwell, World Wildlife Fund
12:00 noon	WORKING LUNCH
	DRIP IRRIGATION TECHNOLOGY — STATE OF THE ART —Dino Cervantes, Farmer
1:00 p.m.	ADJOURN

Revised: November 10, 2004

TENTATIVE AGENDA
for the
WATER AND NATURAL RESOURCES COMMITTEE

November 11-12, 2004
Room 307, State Capitol

Thursday, November 11

8:00 a.m.	CALL TO ORDER —Representative Joe M Stell, Chair
	WATER INFRASTRUCTURE FINANCING —James Jimenez, Secretary of Finance and Administration
9:00 a.m.	SETTLEMENTS: NAVAJO, *AAMODT* AND TAOS —John D'Antonio, State Engineer —D.L. Sanders, General Counsel, Office of the State Engineer
10:00 a.m.	HEALTHY FOREST INITIATIVE —Butch Blazer, State Forester
11:00 a.m.	INTERAGENCY PHREATOPHYTE/WATERSHED WORK GROUP —Miley Gonzalez, Secretary of Agriculture
12:00 noon	LUNCH
1:30 p.m.	CONSERVATION FUNDING INITIATIVES —Bruce Thompson, Director, Department of Game and Fish
2:30 p.m.	RIO GRANDE LEGAL STATUS REPORT —Estevan Lopez, Director, Interstate Stream Commission —Tanya Trujillo, General Counsel, Interstate Stream Commission
3:30 p.m.	GROUND WATER CONJUNCTIVE MANAGEMENT —Peggy Johnson, Bureau of Geology and Mineral Resources, New Mexico Institute of Mining and Technology —Tom Morrison, Chief Hydrologist, Office of the State Engineer
4:30 p.m.	RECESS

Friday, November 12

8:00 a.m.	PROPOSALS FOR LEGISLATION —Water Resources Research Institute —Water Conservation Tax Incentives —Produced Water Tax Credit —Acequia Protection —Albuquerque-Bernalillo Water Authority —Strategic Water Reserve —Water Rights Ombudsman
10:00 a.m.	PRE-1907 WATER RIGHTS —Corky Herkenhoff, Middle Rio Grande Water Rights Association
11:00 a.m.	SUSTAINABLE ENERGY INITIATIVE —Ned Farquhar, Special Assistant to the Governor, Energy and Environment
12:00 noon	LUNCH
1:30 p.m.	ENDANGERED SPECIES COLLABORATIVE —Eileen Grevey-Hillson
2:30 p.m.	WATER TRUST BOARD —Eileen Grevey-Hillson, Member —Trudy Healy, Member —Paula Garcia, Member
3:30 p.m.	NMSU WATER RESEARCH AND EDUCATION PROJECTS —Craig Runyon, NMSU College of Agriculture and Home Economics —John Mexal —Dean Jerry Schickedanz, NMSU College of Agriculture and Home Economics
4:30 p.m.	ADJOURN

MINUTES

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

June 24 - 25, 2004
Room 307, State Capitol
Santa Fe

The first meeting of the Water and Natural Resources Committee was called to order at 10:10 a.m. on Thursday, June 24, 2004, by Representative Joe M Stell, chair.

PRESENT	**ABSENT**
Rep. Joe M Stell, Chair	Sen. Shannon Robinson
Sen. Carlos R. Cisneros, Vice Chair	Rep. Robert White
Sen. Sue Wilson Beffort (June 24)	
Sen. Joseph J. Carraro	
Rep. Joseph Cervantes	
Sen. Dede Feldman	
Sen. Mary Jane M. Garcia	
Rep. Dona G. Irwin	
Rep. Larry A. Larranaga	
Rep. James Roger Madalena	
Rep. Brian K. Moore	
Rep. Andy Nunez	
Sen. Mary Kay Papen	
Sen. H. Diane Snyder	
Rep. Mimi Stewart	
Rep. Don Tripp (June 24)	

Advisory Members

Rep. Ray Begaye (June 24)	Sen. Timothy Z. Jennings
Rep. Anna M. Crook	Sen. Gay G. Kernan
Sen. Clinton D. Harden, Jr. (June 24)	Sen. Steve Komadina
Rep. Rhonda S. King	Sen. Leonard Lee Rawson
Rep. Ben Lujan (June 24)	Rep. Henry Kiki Saavedra
Rep. Danice Picraux	Rep. Eric A. Youngberg
Sen. Nancy Rodriguez	
Sen. Leonard Tsosie	
Rep. Peter F. Wirth	

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

Staff

Jon Boller
Gordon Meeks
Jeret Fleetwood

Guests
The guest list is in the original meeting file.

Thursday, June 24

Representative Stell began by welcoming members, staff and guests and by having members of the committee introduce themselves.

GOVERNOR RICHARDSON'S WATER PRIORITIES

Bill Hume, director of policy and planning for the Office of the Governor, discussed Governor Richardson's water priorities with regard to worsening drought conditions in New Mexico and the need to catalog water resources and put them to the best possible use. He explained that the governor believes the state must take control of its water future through the state water plan, and that the governor's appointment of John D'Antonio as state engineer and Estevan Lopez as director of the Interstate Stream Commission (ISC) are solid moves toward taking control of that future.

Mr. Hume stressed the need for active water management, noting that the state engineer is establishing water masters in the Pojoaque Basin and in the Gallinas Basin near Las Vegas and is currently drafting new management regulations. He also emphasized the need to address the problem of regulating domestic wells, especially with respect to limiting or denying domestic well permits in critical management areas where new wells may jeopardize existing uses or the state's ability to meet interstate compact obligations.

Next, Mr. Hume discussed New Mexico's involvement in three Native American water rights settlements: the *Aamodt* suit, the Navajo settlement and the Arizona Water Rights Settlement Act, which involves water from the Gila River. Though the settlements in these cases are complicated and the negotiation process often opaque, the administration supports negotiation as a better and more workable process than the alternative of litigation. Mr. Hume thanked the Navajo Nation for making it clear from the beginning that the nation preferred the give and take of negotiations to litigation.

Also, Mr. Hume discussed environmental issues, New Mexico-Texas and New Mexico-Mexico water issues, and the governor's intention to place renewed emphasis on water infrastructure development. He noted that the governor has proposed direct water negotiations with the governor of Texas and counterparts in Mexico.

Finally, Mr. Hume reported that legislative requests for the 2005 session would lean more toward funding for water-related projects than new laws and conceded that it would be difficult to adequately fund every agency involved with water projects.

EXECUTIVE SESSION ON LITIGATION ISSUES

The committee went into executive session to discuss water litigation issues.

UPDATE ON LEGAL ISSUES

Stephen Farris, director of the Water, Environmental and Utilities Division of the Office of the Attorney General, and Estevan Lopez, director of the ISC, provided the committee with an update on several legal issues involving water in New Mexico.

Active litigation regarding the Rio Grande silvery minnow has ended for the time being, according to Mr. Farris, and all parties to the litigation have agreed that there are no remaining issues for the court to decide other than whether Judge Parker's opinion should be vacated or not. Accordingly, the parties are concentrating on short- and long-term strategies to ensure the viability of the species and provide adequate water to current water users. Short-term strategies include short-term (two to three years) water management agreements. Long-term strategies include the Middle Rio Grande Endangered Species Act (MRGESA) collaborative program, which focuses on river water management and habitat restoration; better scientific understanding of habitat needs, interaction between surface water and ground water and effects of water management decisions on endangered species; and trying to better understand and control depletions to the river.

Mr. Farris and Mr. Lopez also discussed potential problems caused by the movement of nesting pairs of southwestern willow flycatchers into areas of Elephant Butte Reservoir that are currently dry but once were covered by reservoir water. They explained that current drought conditions coupled with some water storage in reservoirs further north have caused the water level of Elephant Butte to drop significantly, but that it is possible that the reservoir might be filled to previous levels sometime in the future, thus creating a problem with the southwestern willow flycatchers' habitat. A meeting on the issue with Texas, Colorado and federal officials is scheduled for next week.

Next, Mr. Farris and Mr. Lopez provided the committee with an update on negotiations with Arizona over Gila River water. They explained that the Arizona Water Rights Settlement Act, a bill that would settle Native American water issues in Arizona, holds ramifications for 18,000 acre-feet of water to which New Mexico currently has access due to a 1968 agreement. Mr. Farris and Mr. Lopez noted that funding would likely need to be secured to help New Mexico preserve the right to access as much of the 18,000 acre-feet of water as possible.

Also, Mr. Farris and Mr. Lopez addressed the status of implementation of the settlement on the Pecos River. They explained that the settlement has three conditions that need to be met before the settlement becomes effective: implementation of the consensus plan, entry of a partial final decree and compliance with federal contracts and environmental laws. Mr. Farris and Mr. Lopez went on to discuss each of those conditions. Implementation of the consensus plan involves the purchase or leasing of water rights along the river, a process that is underway. Obtaining entry of the Partial Final Decree involves both addressing objections that have been filed and litigation. Mr. Farris and Mr. Lopez noted that discovery in the litigation is underway

and that a hearing is set for November 15, 2004. The compliance with the federal environmental laws component of the settlement has led the ISC to participate in two environmental impact studies (EIS) on the Pecos River. One of those involves modifications to Sumner Dam to provide habitat for the endangered Pecos bluntnose shiner and should be completed by December 2006. The other EIS involves the conversion of Carlsbad project water from irrigation to compact delivery, and a draft is scheduled for completion by September 2005.

Finally, Mr. Farris and Mr. Lopez provided the committee with an update on the *Aamodt* settlement. They explained that there are ongoing negotiations with the federal government over cost sharing of the project and that the settlement will offer an opportunity to resolve long-standing litigation, as well as provide certainty with respect to quantification of both pueblo and non-pueblo water rights to ensure the future water supply to the region. They also noted that participation in the settlement is voluntary and that the court would address non-signatories to the agreement.

STRATEGIC WATER RESERVE

Fred Nathan, executive director of Think New Mexico, provided the committee with testimony regarding a bill introduced during the 2004 legislative session regarding a strategic water reserve. He explained the need for such a reserve, the potential uses of the strategic water reserve, funding for the project and a list of individuals and organizations endorsing its concept.

Norman Guame, former director of the ISC and now a water consultant, noted that New Mexico needs tools like the strategic water reserve.

STATUS OF NAVAJO WATER SETTLEMENT

Mr. Lopez provided the committee with an update on the Navajo water settlement. Mr. Lopez noted that even though New Mexico was granted 11.25 percent of the Upper Colorado River Basin yield (approximately 669,000 acre-feet per year), the San Juan River Basin only contributes three percent of the annual yield available to the Upper Colorado River Basin. This relatively large apportionment to New Mexico, he explained, was granted with the understanding that New Mexico would someday have to address the as-yet-unquantified Indian water rights in the region. A draft settlement was released for public review last December and a revised draft and response to public comment should be completed in July 2004. The Navajo Nation approval process will then begin, and, if the nation and the ISC approve the terms of the settlement, it can be introduced to Congress as early as this fall. John Gilmore, representing the Navajo Nation, explained the process for the Navajo Nation's approval of the proposed settlement.

The committee recessed at 4:45 p.m.

Friday, June 25

USE OF THE WATER INNOVATION APPROPRIATION

James Jimenez, secretary of finance and administration, and Bill Sisneros, director of the New Mexico Finance Authority, provided the committee with an overview of the $10 million water innovation appropriation. They explained that money from the appropriation would be used to fund innovative water use and conservation projects through the New Mexico Finance Authority. Mr. Sisneros outlined the time frame for the projects, from initial letters of interest to finance authority approval and initiation of the projects. He noted that a large number of groups and individuals had either been contacted directly about the availability of funds for innovative water projects or had been notified by advertisements taken out in periodicals across the state, and that over 240 responses had already been received.

Mr. Sisneros went on to explain that projects likely to be invested in would be the result of innovative ideas backed by good science, though he emphasized that innovative new ideas are being sought.

WORK PLAN

Representative Stell remarked that he has been dealing with water issues in the legislature for over 18 years, since New Mexico and Texas were involved in a lawsuit regarding water resources for El Paso. He noted that the questions asked by legislators 18 years ago are the same questions being asked now, emphasizing that water is a complicated issue that requires the constant re-education of the legislature. In that time, Representative Stell noted that the funding of small water projects garners most of the legislature's attention while larger projects go unfunded, and that all the while water continues to flow under New Mexico's borders. He suggested that $500 million could give New Mexico the opportunity to appropriate some of that water before it left the state, and that it might make sense to allow private companies, regulated by the Public Regulation Commission, to provide water to New Mexicans at a small profit, since the state has not yet committed itself to providing adequate funding for these projects.

The committee selected the following meeting dates and locations:

July 27-28	Clovis
August 10-11	Albuquerque
September 7-8	Taos
October 3-5	Deming/ Silver City/ Las Cruces
November 11-12	Santa Fe

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

- history of Water Trust Board project funding;
- partnerships with the private sector;
- drought strategies of other states; and
- computer models of water movement.

The committee adjourned at 11:20 a.m.

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

July 27-28, 2004
Board Room, Clovis Community College
Clovis

The second meeting of the Water and Natural Resources Committee was called to order at 10:15 a.m. on Tuesday, July 27, 2004, by Senator Carlos R. Cisneros, vice chair.

PRESENT	**ABSENT**
Rep. Joe M Stell, Chair	Sen. Joseph J. Carraro
Sen. Carlos R. Cisneros, Vice Chair	Sen. Dede Feldman
Sen. Sue Wilson Beffort	Sen. Mary Jane M. Garcia
Rep. Joseph Cervantes	Rep. Larry A. Larranaga
Rep. Dona G. Irwin	Rep. James Roger Madalena
Rep. Brian K. Moore	Sen. Mary Kay Papen
Rep. Andy Nunez	Sen. Shannon Robinson
Rep. Don Tripp	Sen. H. Diane Snyder
Rep. Robert White	Rep. Mimi Stewart

Advisory Members	
Rep. Ray Begaye	Sen. Timothy Z. Jennings
Rep. Anna M. Crook	Rep. Rhonda S. King
Sen. Gay G. Kernan	Sen. Steve Komadina
Sen. Clinton D. Harden, Jr.	Rep. Ben Lujan
Rep. Peter F. Wirth	Rep. Danice Picraux
	Sen. Leonard Lee Rawson
	Sen. Nancy Rodriguez
	Rep. Henry Kiki Saavedra
	Sen. Leonard Tsosie
	Rep. Eric A. Youngberg

Staff
Jon Boller
Gordon Meeks
Jeret Fleetwood

Guests
The guest list is in the original meeting file.

Tuesday, July 27

Becky Riley, executive vice president of the Clovis Community College, and Tom Drake, assistant to the president, welcomed the committee to Clovis and to Clovis Community College.

Ray Mondragon, Clovis city manager, also welcomed the committee to Clovis.

COMMENTS ON STATE ENGINEER PROPOSED RULES

John D'Antonio, state engineer, and several members of his staff provided the committee with testimony regarding proposed active water resource management rules. Mr. D'Antonio began by noting that his authority to issue regulations governing water administration is clear. Section 72-2-9.1 NMSA 1978, enacted into law in 2003, expresses with some urgency the need for the state engineer to move forward with a plan for actively administering water allocations in accordance with water rights priorities. He stated that administration of water in New Mexico needs to be brought under one umbrella, rather than the current arrangement of water masters being created by four entities: federal courts, state courts, the Interstate Stream Commission and the Office of the State Engineer (OSE), and that the proposed rules should effectively do so. Mr. D'Antonio explained that his office will first develop general rules, to be supplemented by more extensive district-specific regulations. Water masters appointed by the state engineer will actually administer water rights in each of those specific districts. In developing the rules to this point, Mr. D'Antonio noted that his office has received a great deal of feedback from the public, which will help the OSE improve the rules, and that his office will continue to consult with the public in finalizing the general regulations and developing the district-specific regulations.

Mr. D'Antonio addressed many of the concerns about the proposed rules (see testimony below) expressed by a number of different communities of interest, including irrigation districts, acequias, municipalities, agriculture and those who question how the proposed rules will apply to them. In addressing those concerns, he discussed protection of senior water user rights; conjunctive administration of water rights and cooperative management with irrigation districts; the status of imported water; public welfare issues; due process protections for curtailed junior water users; replacement plans to provide a mechanism for immediate, temporary relief to junior users affected by priority administration; constitutional questions about the state engineer's authority to administer water rights absent a final adjudication of those rights; and appeals of water master and OSE decisions.

Steve Hernandez, an attorney representing Elephant Butte Irrigation District and Carlsbad Irrigation District, provided the committee with comments regarding the OSE's proposed rules. He applauded the OSE for trying to develop its rules, but observed that there are a number of potential problems with their practical application. First, he noted that the authority of water masters conflicts with state law providing irrigation districts with the authority to allocate and deliver water. For instance, he explained that an irrigation district's board of directors may allow members of the district to transfer water to other members, without the approval of the state engineer. He stated that placing that authority in the hands of a water master or the OSE creates a conflict. Mr. Hernandez also noted that many of the duties proposed for water masters are already performed by ditch riders and water masters that already exist. He

went on to raise concerns about budgeting for water masters, stating that water masters could completely duplicate functions performed by irrigation districts and charge water users for the same functions. Finally, Mr. Hernandez expressed concern about the lack of due process protection for water users under the OSE's proposed replacement plans.

Jay Stein, an attorney representing the El Prado Water and Sanitation District and the cities of Espanola, Las Cruces and Albuquerque, provided the committee with other concerns regarding the OSE's proposed rules. He explained that OSE approval of wells to divert ground water requires entities, such as those he represents, to put offsets back into the Rio Grande to counter the reduced flows. Mr. Stein pointed out that the proposed rules remain unclear on those offset requirements. He also noted that it is conceivable that the three cities he represents may have to use San Juan-Chama water to meet offset requirements, thereby making it unavailable for uses such as municipal drinking water. Mr. Stein suggested that the rules regarding stream systems should clearly outline their goals and that alternatives to active river management should be explored.

David Benavides of New Mexico Legal Aid expressed his concerns over the proposed OSE rules to the committee. He explained that the replacement plans proposed by the OSE rules are problematic in that the public is given little notice about the proposed transactions; that the state engineer is only required to review impairment to water users in a replacement plan; and that there are severely limited grounds for challenges. He also noted that the burden in a challenge would fall on the protester, not the applicant, as opposed to the burden currently being on the applicant.

A.J. Olsen, representing the Pecos Valley Artesian Conservancy District (PVACD), discussed his concerns over the proposed OSE rules with the committee. He first noted that PVACD's water administration is specified by a court decree and that the proposed rules would be in conflict with that decree. Mr. Olsen also stated that the proposed rules are vague, arbitrary and difficult for even trained water specialists to understand.

Janet Jarrat, a Valencia County farmer, outlined her concerns with the proposed OSE regulations. She explained that she believes the proposed rules are undermining the collaborative processes used by water users now. She also stated that water administration needs structure and guidance and should not be open-ended and unclear. Finally, Ms. Jarrat expressed her fear that senior water users could potentially be curtailed by a junior user under the direction of a water master or the OSE.

Mike White, representing the New Mexico Farm and Ranch Bureau, emphasized that his group supports the protection of water rights. Mr. White went on to question whether the proposed rules will protect the water rights of senior users.

Adrian Ogelsby, attorney for the Pueblo of Santa Ana, expressed his concerns over the proposed rules. He explained that the Pueblo of Santa Ana is really only answerable to federal law, and while the proposed rules have no applicability to the pueblo, it wishes to be good

neighbors. Mr. Ogelsby went on to voice his concerns over the lack of due process and public notice in the proposed rules. He also noted that the burden of producing a "clear and convincing" standard of evidence in appeals is nearly unattainable.

Len Stokes, representing the cities of Las Cruces and Alamogordo and Lea County water users, noted that changes in water administration will be difficult for everyone involved to accept and applauded the OSE for trying to better manage New Mexico's water supply. He also observed that in past years when New Mexico fell short of its compact deliveries, Texas took some time to prepare legal action against New Mexico. However, Mr. Stokes noted that it now appears that Texas is ready to pursue immediate legal action in the event of a shortfall, making it more important than ever that New Mexico take whatever steps it can to ensure that compact delivery obligations are met.

Mr. D'Antonio responded to the comments concerning the proposed rules and stated that his office would work diligently to address any misunderstandings or misconceptions regarding the proposed action. He assured the committee and water users that expedited transfers will not be allowed outside existing legal restraints and obligations. He said he would respond to written comments on the proposed rules submitted to his office.

Committee questions and comments related to:

- regulations as the backbone for administering water during a drought;
- public hearings on the proposed general rules as well as the specific regional rules;
- the water masters in place in San Juan County, Las Vegas, the lower Rio Grande, the Rio Gallinas and the Pojoaque Valley;
- the appropriation level for the Pecos River settlement, about $40 million to date, and the need for $30-$50 million more, compared to a potential cost estimated at $200-$300 million of a priority call on the Pecos;
- the interaction of these proposed rules of the state engineer with the courts and the new supreme court rules in water adjudications;
- use of normal procedures for appeal;
- the need for users to act aggressively and affirmatively to protect their rights;
- conservation plans as components of regional plans and conformity of the new rules with regional plans and the state plan;
- status of water rights adjudications;
- quantification of the amount of water being used and the amount of water available in a given year;
- the power of a water master being given to classified employees and those employees' qualifications for that quasi-judicial authority;
- communications with irrigation and conservancy districts;
- setting a deadline for closing the comment period and adopting the regulations; and
- establishing a project management plan and a project review board.

DROUGHT TASK FORCE STATUS REPORT

Anne Watkins, special assistant to the state engineer, provided the committee with an update on the work of the governor's Drought Task Force (DTF). She explained that although New Mexico had received an above-normal amount of precipitation through the end of June, it would still take several years of normal or slightly above normal precipitation for the state to get back to normal reservoir levels. She also updated the committee on the water levels at the state's reservoirs, noting that most are below average and all are far below capacity. Ms. Watkins went on to summarize the drought plan developed in 2003 and the drought summit held in September 2003. She noted that another drought summit is planned for fall 2004, and that the intention is to focus on prevention of the catastrophic effects of drought; indicators of drought that can trigger management systems; water management; and project planning. Ms. Watkins also discussed some of the technology being developed to combat drought, including the use of water from brackish aquifers and desalination.

Questions and comments from the committee addressed:

- why the Water Trust Fund money is not being spent on the large regional projects that the fund was supposedly created for;
- the relationship of the Water Trust Board to the DTF and its work;
- the condition of habitat for endangered species;
- the cost-effectiveness of wellhead desalination;
- the status and financing for "urban defensible space projects", i.e., urban forest wildfire interface zones and forest and watershed improvement money;
- the cost of the drought to state agencies, such as state parks and the Department of Environment drinking water systems program; and
- general water management needs around the state in the foreseeable future and money to implement them.

PECOS RIVER SALT CEDAR REMOVAL STATUS REPORT

Debbie Hughes, director of the New Mexico Association of Conservation Districts, discussed efforts to remove salt cedars along river banks in New Mexico, particularly along the Pecos River. She outlined the funding sources for several salt cedar removal projects, noting that federal, state and local money has been contributed toward the various projects. Ms. Hughes also discussed the various means of salt cedar removal being employed, including biological, chemical and mechanical. Biological control consists of the use of goats in a pilot project along the Rio Grande and the use of the leaf beetle to eat salt cedars along the Pecos River. Chemical control involves spraying an herbicide such as Arsenal on salt cedars along the river banks from a helicopter. Ms. Hughes explained that since the herbicides attack enzymes that allow plants to grow, they are quite safe to animals and humans and have been approved by the federal Environmental Protection Agency (EPA) for direct application on water surfaces. Mechanical treatment is the process of physically removing salt cedars, either by the use of a machine that pulls the tree and roots out of the ground or by individuals with chainsaws simply cutting down the trees. Ms. Hughes discussed the acreage treated by each method and the success achieved by each method. She noted that, in most cases, each method requires re-treating the areas to remove small patches of salt cedars that have begun to grow again. Finally, Ms. Hughes discussed

whether the treatment of salt cedars along river banks actually leads to increased water flows. While she emphasized that more data is needed before a conclusion can be drawn, she did cite one example of increased flows being measured along a stretch of treated river where few other factors could have contributed to the increased amount of water in the river.

Questions and comments from the committee related to:

- how to determine what areas are aerial-sprayed and what areas are mechanically treated;
- relative effectiveness of the two treatments;
- percentage of water recovered that is owed to Texas from federal money used for salt cedar removal;
- monitoring and evaluating expenditures;
- cost per acre, $200 per acre average;
- the lack of data on the cost benefit ratio for the amount of water saved per dollar spent on eradication;
- use of Arsenal herbicide and its safety;
- the participation of a public health specialist to work on the Interagency Coordinating Task Force;
- the amount of spraying on private land; and
- the number of goats used and the extent of livestock used for salt cedar suppression in the long term.

A motion was made, seconded and unanimously approved to adopt the minutes of the June 24-25 meeting.

The committee recessed at 3:40 p.m.

Wednesday, July 28

UTE PIPELINE PROJECT

Scott Verhines, Ute Pipeline project manager, Orlando Ortega, mayor of Portales, and Darrel Bostwick, chairman of the Ute Water Commission, provided the committee with testimony regarding the status of the Eastern New Mexico Rural Water System (ENMRWS). They explained that the ENMRWS is a project designed to meet the water use needs of the eastern-central New Mexico communities and counties and Cannon Air Force Base. They stated that the project was first conceived almost 40 years ago and that the need for it has increased rather than diminished. The group explained that the concept for the ENMRWS involves technically simple but administratively complex plans to build a pipeline to deliver water from Ute Reservoir to the area's communities. They outlined the funding needs for their project in terms of federal, state and local money, noting that they had recently testified before a congressional committee about federal funding issues. They emphasized that they are seeking 80 percent of the money from the federal government and 10 percent each from the state and local governments participating in the project.

Questions and comments from the committee related to:

- the possibility for federal funding;
- the federal Bureau of Reclamation's lack of support for a federal-state matching ratio of 80 to 20 percent rather than 65 to 35;
- alternative costs and financing packages for financing the 10 percent local cost share;
- the precedent set for an 80/20 matching federal/state funding formula in other major regional water projects around the country;
- the amount of money sought from the state, more than $31 million over 10-11 years;
- escalation of costs for every year of no progress;
- viability of issuing industrial revenue bonds or adding gross receipts tax and other options to finance the project;
- nature of the delivery system from the lake, trunk pipeline 18 to 54 inches to the caprock with three pump stations, a water treatment plant and 180 miles of distribution lines;
- the potential use of wind energy for powering the pumps;
- water rights total of 24,000 acre-feet from Ute Reservoir;
- the current anticipated use level of the various participating communities;
- the first delivery planned for 2012; and
- the project is not affordable without state and federal subsidies.

GROUND WATER REGULATION

Representative Earlene Roberts discussed the existence of an "undeclared" water basin on the east side of New Mexico in Roosevelt County. She explained that increased drought awareness in the area has forced people to look around at water options, and the presence of a basin outside of the jurisdiction of the OSE has raised concerns about the amount of water available to them. She said that nothing illegal was going on, but that she felt it was important to protect all water users.

Pat Clifton, a resident of southern Roosevelt County, explained that dairies in the area have increased the demand for feed crops. Consequently, land that has never been tilled is now being put into production and irrigated, which in turn places a large demand on limited water resources. He expressed a need to at least register and monitor the irrigation wells, since there is currently no limit on the amount of use from wells in the area.

A motion was made, seconded and unanimously approved by the committee to send a letter to the state engineer asking him to appear before the committee in August to clarify the issue of undeclared basins.

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMITTING PROGRAM

Charles Lundstrom and Derrith Watchman-Moore, both of the New Mexico Department of Environment (NMED), provided the committee with testimony regarding the federal National

Pollutant Discharge Elimination System (NPDES) permit program. They explained that NPDES was created by the federal Clean Water Act to control water pollution by regulating, through a permitting process, point sources that discharge pollutants into waters of the United States, and that while individual homes do not require permits, industrial, municipal and other facilities do. Mr. Lundstrom and Ms. Watchman-Moore explained that permits are issued by either authorized states or the EPA, and that a state may be authorized by instituting a permitting program that is either as stringent as, or more stringent than, federal permitting regulations. They also noted that 45 of the nation's 50 states have been authorized, while New Mexico is still required to deal with the EPA's office in Dallas, Texas.

Mr. Lundstrom and Ms. Watchman-Moore explained to the committee that NMED is seeking changes to the state's Water Quality Act that would allow it to become authorized and take over the permitting process. They outlined the process by which existing permit holders would simply be re-authorized by the state instead of the EPA, noting that becoming an authorized state will likely cost New Mexico about $1.3 million.

Questions and comments from the committee addressed:

- the availability of a draft bill;
- whether state regulation would differ from the way EPA is administering the program; Mr. Lundstrom said the state would not change the compliance requirements;
- how existing permits would stay in place and as they expire they would be renewed by the state; and only those permits that are out of compliance anyway would have problems with the state, according to the speakers;
- opposition from some permittees over the fees the state would impose;
- why now, why change, who's complaining about the current status?;
- the underground storage tank "corrective action fund";
- the number of vacancies in the department and how that relates to the proposed new program;
- use of existing staff and efficiency improvements in department administration;
- frustration over fees and money going into the general fund rather than being used to pay for the permit program that the fees were originally created to pay for;
- Navajo regulatory primacy;
- the number of existing NPDES permits; approximately 120 individual permits and 2,500 facilities are under general NPDES permits;
- the appeal process over enforcement actions; and
- the term of a permit.

PUBLIC COMMENT

Randy Traynor, New Mexico Home Builders Association (NMHBA), said fines are serious. The NMHBA tries to help its membership comply. The EPA has been reasonable partly because its permits are issued over the Internet. No one has disputed the water quality standards per se, but the regulated community needs to know that the NMED is going to be able

to assume EPA authority seamlessly and not create new problems. There are thousands of sites to be affected by this change. Questions such as "how is it going to be run?", "how will it be staffed?", "how much professionalism will be exercised?" need to be answered.

John Horton, director of policy for commercial general contractors, said that companies receive permits for their operations, which require plans. He said that many industries are potentially affected by the regulations, including agriculture and even the state Department of Transportation. He said his organization wants input in drafting the legislation and in developing rules for the enforcement process.

Questions and comments from the committee addressed:

- why it is necessary to amend the Water Quality Act; and
- the status of the Water Quality Control Commission and its sunset date.

HYDROLOGY OF THE SACRAMENTO MOUNTAINS

Rick Baish, representing the Otero Soil and Water Conservation District, discussed dwindling water resources in communities near the Sacramento Mountains, such as Cloudcroft, noting that currently little is known about how the Sacramento Mountains function hydrologically. He explained that area communities have been talking with New Mexico Tech about better understanding the hydrology of the mountains, particularly in terms of watershed health and what becomes of the precipitation that falls in the area.

Other members of the affected communities, including Mike Nivison, Dan Abercrombie and Eddy Vigil, discussed the need to study the hydrology of the area to try to maximize the limited water resources. They also noted that, for communities such as Cloudcroft, the question is not if they will run out of water, but when. Finally, they stated that studies alone will not help the water situation, that funding is needed for both studying the water resources of the Sacramento Mountains and for bringing the forests back to health, which will provide more water and limit fire danger.

The committee asked the group about the feasibility of getting funding through a mill levy, but they explained that, even if such a measure were to pass, Otero County contains large amounts of federal land, meaning that there is a very small amount of taxable land and it likely would not produce adequate funding.

Other questions and comments related to:

- how much money is being sought, $1.3 million through New Mexico Tech's Bureau of Geology and Mineral Resources;
- money available from the federal Department of Agriculture;
- the capacity for soil and water conservation districts to get mill levies adopted by the voters;
- the time span for the study and phasing of the project; and
- the potential for Sandia National Laboratories' tax credit program for technical assistance.

The committee adjourned at 12:10 p.m.

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

August 10-11, 2004
Workforce Training Center, TVI
Albuquerque

The third meeting of the Water and Natural Resources Committee was called to order at 10:10 a.m. on Tuesday, August 10, 2004, at the Workforce Training Center at Albuquerque Technical-Vocational Institute.

PRESENT	**ABSENT**
Rep. Joe M Stell, Chair	Rep. Joseph Cervantes
Sen. Carlos R. Cisneros, Vice Chair	Sen. Mary Jane M. Garcia
Sen. Sue Wilson Beffort	Rep. Dona G. Irwin
Sen. Joseph J. Carraro	Sen. Shannon Robinson
Sen. Dede Feldman	Rep. Mimi Stewart
Rep. Larry A. Larranaga	
Rep. James Roger Madalena	
Rep. Brian K. Moore (8/11)	
Rep. Andy Nunez	
Sen. Mary Kay Papen	
Sen. H. Diane Snyder	
Rep. Don Tripp (8/10)	
Rep. Robert White	

Advisory Members

Rep. Anna M. Crook	Rep. Ray Begaye
Sen. Gay G. Kernan (8/10)	Sen. Timothy Z. Jennings
Rep. Ben Lujan (8/11)	Sen. Clinton D. Harden, Jr.
Rep. Danice Picraux	Rep. Rhonda S. King
Sen. Nancy Rodriguez (8/11)	Sen. Steve Komadina
Rep. Henry Kiki Saavedra	Sen. Leonard Lee Rawson
	Sen. Leonard Tsosie
	Rep. Peter F. Wirth
	Rep. Eric A. Youngberg

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

Guest Legislator
Rep. Earlene Roberts (8/10)

Staff

Jon Boller
Gordon Meeks

Guests
The guest list is in the original meeting file.

Tuesday, August 10

UNDECLARED GROUND WATER BASINS

Paul Saavedra, general manager of water rights for the Office of the State Engineer, described briefly the history of water administration in New Mexico. He said that New Mexico water law is based on the doctrine of prior appropriation, which provides that the person first using the water has a senior or better right than subsequent users, so long as beneficial use continues. Surface water laws as they now exist were established in 1907, after which any new appropriations of surface water required a permit from the state engineer. Surface water appropriations that pre-date 1907 may be validated upon the filing of a declaration of use with the state engineer. Ground water use, however, was not regulated until many years later. In 1931, the legislature extended the doctrine of prior appropriation to ground water, and authorized the state engineer to require permits for new ground water appropriations in areas where the state engineer deemed it necessary to limit the unregulated, and unlimited, use of ground water. These areas, known as declared basins, now number 33 and cover approximately 92 percent of the state. When asked why there are still undeclared basins in the state, Mr. Saavedra replied that most of these areas were far from the current administrative office, that declaring a basin was often controversial and that the state engineer did not yet have the resources to adequately administer newly declared basins. He noted, however, that the state engineer was considering declaring the Clayton Basin and the Causey-Lingo Basin, and extending the existing Canadian River Basin. Mr. Saavedra said he would bring a cost analysis to the committee.

The committee posed questions and discussed:

- the cost of declaration of basins;
- location of wells in a basin and the inventory required;
- the process for water rights determinations after a basin is declared;
- whether existing wells in a declared basin are grandfathered and the potential need to file a declaration of water rights;
- the reasons the state engineer may use for declaration of a basin;
- the status of windmill wells in a declared basin;
- domestic wells in a declared basin;
- any advantage to having a well prior to a declaration date versus after the declaration date;
- identification of the area of a ground water basin;
- the need for simplification and the confusion between declared and undeclared basin regulatory status;
- if water can be sold to Texas;
- the status of ground water under land grants;

- that the first step to water rights adjudication should be declaration of the ground water basin;
- the nature of private property rights and the state's authority to prevent a person from selling water rights to Texas;
- the state's ownership of water in undeclared areas;
- the right of the state to condemn water rights and confusion about the state not having power to "do anything";
- administrative hearings and protests over closed basin declarations;
- qualifications for administrative law judges and hearing officers;
- schedule for declaring ground water basins;
- whether legislative action is needed;
- potential costs of not declaring basins;
- tribal rights in declared basins; and
- a request for explicit action from the Office of the State Engineer in declaring the remaining basins closed, strategic plan to declare the remaining basins and cost analysis and budgeting.

The chair recognized Willard Heck from the audience, who commented that many citizens are concerned that water is going to be depleted and encouraged the state engineer to act quickly. He said there are no standards for well drilling or the quality of a well.

Robert Findling of the Nature Conservancy of New Mexico thanked the committee's for its understanding of the issue and the need to quell the rate of well drilling.

An unidentified woman commented on irrigation circles and said she was heartened by the committee's interest.

Bill Bickley and Betty said they have farm land in the conservation reserve program and want to know how they can conserve water and still retain the right to use it in the future.

INNOVATIVE WATER TECHNOLOGIES

Lynda Taylor, ZERI New Mexico, said that the state needs to find ways to better use available resources. She said the state must use raw materials in value-added ways that provide for sustaining communities in New Mexico. She noted that the state has many resources, such as universities, national laboratories and educated people, but asked why New Mexico still scores so low in social and community measures of success. The governor requested ZERI to conduct a two-day workshop for six agencies, representatives from the oil and gas industry, the dairies and other interests to explore cooperation and coordination for social and environmental change for New Mexico. She passed around to the committee a packet of information and charcoal produced from an enterprise involved in processing wood material from small diameter thinnings from the national forests. She thanked the governor for the calling the workshop, and said that ZERI is looking for unique and sustainable projects with state agencies to eliminate waste and protect the environment. She said that forestry waste, in particular, needs new attention because 70 to 80 percent is ending up in landfills. She said there is a need for looking at contaminated

soils from produced water, better water conservation and new, innovative, out-of-the-box solutions to dairy wastes.

She said sponsors for some of this work are the Healy Foundation (Trudy Healy) and the Living Foundation. A current priority of ZERI is forest value-added restoration through the manufacture of charcoal, a natural, nontoxic wood charcoal from harvesting small diameter wood material.

She introduced Ivenka Malenkovic, a Ph.D. scientist in mycology from Serbia who said that salt cedar and Russian olive can be processed with fungi to make an animal feed. The Community of Mora's Rough and Ready Lumber Company, the state forester, the U.S. Forest Service and New Mexico State University are cooperating on a project to test branches innoculated with fungi and placed on the forest floor to prevent erosion. They are also exploring the use of edible fungi on slash for marketing and the recycling of slash to create soil. In the oil and gas industry, algae can be added to produced water to treat it without the conventional expense of cleaning the water. The algae can then be used for diesel fuel or animal feed. This has been researched by the National Renewable Energy Laboratory in Boulder, Colorado, during a project in Roswell.

ZERI is also exploring water conservation through the use of "harvested" condensation for irrigating crops. This technique involves passing water from a river through a pipe under the crops at the root level where the cooler soil picks up condensation on the outside of the pipe, which is collected and used to water the crop, and the diverted water is returned to the river without using it.

Ms. Malenkovic told the committee that dairy wastes can be treated in a waste digester after which the nutrient water can be fed into a fish pond where the fish eat the nutrients. The Pueblo of Picuris is exploring this concept in collaboration with the Border Environment Cooperation Commission.

She concluded by saying there is no such thing as waste in nature; creative ideas must be used to build sustainable communities through waste recycling.

The committee asked questions about and discussed:

- ZERI's relationship with the Pueblo of Picuris and other tribes;
- the quality of the charcoal derived from forest material and that it will have no chemical additives;
- the cost-effectiveness of the charcoal project and its schedule;
- work with New Mexico State University to set up a spore bank;
- processing of forest waste after fire and thinning operations;
- the potential use of salt cedar waste;
- the role of the small business development centers in the project;
- the market for charcoal to the Whole Foods grocery chain;
- the potential for use of activated charcoal for water treatment systems;

- the national applicability of the ZERI project;
- funding sources for forest thinning and charcoal processing;
- the capital outlay appropriation of $350,000 distributed to different agencies and the need for a general appropriation for operating expenses; and
- the potential for inoculation of state forest seedlings with myccorizal fungi.

The committee approved without opposition the minutes of the previous meeting in Clovis on July 27 and 28, 2004.

MIDDLE RIO GRANDE CONSERVANCY DISTRICT INNOVATIONS

Sterling Grogan, chief biologist for the Middle Rio Grande Conservancy District (MRGCD), reviewed innovations in water management and bosque management in the MRGCD's area. He told the committee that the district includes 150 miles of the river between Cochiti and the Bosque del Apache. There are 11,000 water users on 70,000 acres in the district. He said that water consumption in the area is split more or less evenly into one-third each to agriculture, the natural bosque and reservoir evaporation. The law creating the district was enacted in 1933 for drainage, flood control and rehabilitation of the 77 acequias in the middle stretch of the Rio Grande at the time. Total diversions amounted to 320,000 acre-feet in 2003. This is a 47 percent reduction in diversions, and losses and returns have been reduced while crop usage has remained the same, about 130,000 acre-feet. He explained that conservation is important but that a trade-off is the reduced amount of return flow to the river that may have implications for the endangered species recovery plan. He said that all diversions are metered and 85 percent of the return flow is metered. The remaining part of the return flow that is not metered is nearly impossible to gauge because the level of the river has risen and the unmetered return flow is under the river level. The MRGCD has installed automated water control gates. It has also constructed an artificial silvery minnow habitat.

He told the committee of the dilemmas created by population growth and conversion of farmland to subdivisions. For example, he said that Valencia County growth since 1991 is 45 percent. There is a need for innovation due to human growth. The bosque did not used to be a connected forest. Human intervention in the form of flood control leads to a continuous forest that is consequently subject to more wildfires. About 20,000 acres of the bosque is owned by the MRGCD.

He showed photos of salt cedar reduction efforts using goats and mechanical removal. He said that goats are an effective means of salt cedar control, reducing the volume by 25 percent in one month. The MRGCD and the soil and water conservation districts will be asking for more funding to continue the use of goats. Neither goats nor Arsenal are a one-time effort, he said. This kind of eradication effort will have to continue indefinitely.

The committee asked questions and discussed:

- individual farmers' adjudication status in the MRGCD and the purpose of metering in the MRGCD;
- the benefits of improving the efficiency of the conveyance system over metering

on farm deliveries;

- the problem of drip irrigation causing salt buildup and destroying the productivity of the crop land and that drip irrigation requires the water to be filtered;
- how many goats are required to clear a given area of salt cedar and if there are enough goats;
- the amount of land taken out of production within the MRGCD during the past few decades since MRGCD records show no change in acreage under crops since the 1970s;
- the process of developing proof of beneficial use;
- the improvement of watersheds as the single best option to improve water yield; and
- goats for meat and economic development.

SANTA FE DOMESTIC WELL ORDINANCE

Claudia Borchert, water resources project coordinator for the City of Santa Fe, told the committee that protecting ground water sustains the City of Santa Fe's water. The city is in an area of a limited body of water, where recharge is minimal. The population is currently using more water than is recharged. Thus, the city is faced with the challenge of making water policy that must provide for the equitable distribution of resources among its citizens. Private wells not only deplete the city's water supply, but can also be direct conduits to pollution of the drinking water relied on by the city utility customers as well as those on private wells. She said the city monitors ground water resources. The city's domestic well ordinance regulates the use of wells to require compliance with water conservation and attempts to regulate how and when, but not how much, water is used. The restrictions on drilling new domestic water wells are contained in City Code Number 25-1.1. The key component of the ordinance is that no new wells are allowed without a permit and a permit can be denied if the place of use is within 300 feet of a water distribution line, unless the cost is more for connecting to the utility than drilling a well. The ordinance tracks the state statute. The city has other water conservation efforts it is undertaking such as toilet retrofits, but the domestic well policy is an important component of the city's water policy. She provided the committee with a schematic flow chart for the permitting process and elucidated some of the concerns and questions that have arisen since enactment of the ordinance. They include:

1. balancing utility decisions with wise resource management decisions;
2. the occasional problem of easements being unobtainable across neighboring property when the place of use is nevertheless within 300 feet of a utility;
3. the state law not allowing for flexibility in permit decisions — it is not always as cut and dry as the law presumes;
4. that ideally, the level of current water service should prevent the demand for domestic well permits, but that level of service is not yet available;
5. the potential need for changes in subdivision laws and ordinances to prohibit them if utility service is unavailable; and
6. the inherent conflicts between making water decisions based on utility administration versus a water conservation basis.

The committee asked questions and discussed:

- that the average depth of wells in Santa Fe is 250 to 300 feet;
- ongoing litigation over the city's domestic well ordinance;
- the difference between a city regulating for water resources protection and the city utility being able to make decisions based on utility economics;
- the status of the Santa Fe National Forest watershed restoration project; and
- the history of the New Mexico Municipal League's version of the bill.

The committee recessed at 4:10 p.m.

Wednesday, August 11

ALBUQUERQUE BERNALILLO COUNTY WATER AUTHORITY

Mark Sanchez, director, and Allen Armijo, chair, both of the Albuquerque Bernalillo County Water Authority (ABCWA), and John Stomp, manager of the water utility, told the committee that they want to figure out how to deal with water in the region and to work with other communities. They described the history of the creation of the authority pursuant to Senate Bill 87 passed in the 2003 session. The law requires an audit by the Public Regulation Commission prior to transferring assets, which occurred in December 2003. The governing structure provides for three county commissioners, three city council members and the mayor. A joint powers agreement and a memorandum of understanding between the county and the city has led to the smoothest transition possible for employees and customers. Mr. Stomp runs the day-to-day operations.

Part of the transition process was the repeal of the city's annexation requirement for service to be provided in an area, which had been the point of conflict between the city and county for decades. The authority has reduced $1 million from overhead operating expenses through reorganization. Rates have been reduced accordingly. Seven million dollars has been allocated for extending services into the north and south valleys to eliminate 7,000 septic tanks. They said gains have been made toward improving water delivery and treatment. On August 9, a groundbreaking took place for the purification plant, which was partially financed through $228 million from the New Mexico Finance Authority.

Kirtland Air Force Base is asking for an expansion of services for water and sewage. One thousand new housing units are planned at Kirtland that will need service.

The ABCWA has approved a peer review process by which it will continue to improve efficiencies. The speakers testified that they are working with outlying communities upon request. The East Mountain Community, for example, has approached the ABCWA as has the Mesa del Sol Subdivision and the Community of Corrales. They said the ABCWA has gone to Wall Street regarding credit rating and received a AA rating. The credit is as high as it was prior to reorganization, even though there had been concern that re-organization might lead to a lower credit rating.

Mr. Stomp went through graphics explaining the rate of water withdrawals. The utility has pumped less out of the aquifer in 2004 than in 1987. He said there has been a 28 percent reduction since 1994. The ABCWA's goal is to reduce withdrawals by 40 percent. Water conservation efforts so far include replacement of old toilets with 51,000 low-flow toilets and the removal of three million square feet of lawn that has been replaced with xeriscape. He said a diversion permit has been approved by the Office of the State Engineer for the South Alameda site. A lawsuit has been filed, but the ABCWA is moving ahead with construction of 56 miles of pipes from that purification plant to its customers. Funding to retire the bonds is coming from rates charged to customers. Construction of distribution pipes will begin later this year.

The diversion dam is an adjustable dam with bladders and has fish passage and an Endangered Species Act permit from the federal government. All permitting is complete and the state permits are in hand.

The committee asked questions about and discussed:

- excessive watering of road medians;
- duration of the San Juan/Chama project (in perpetuity contract);
- the status of the appeal on the diversion permit by Socorro, John Carangelo, the assessment rate payers of the MRGCD, Rio Grande Restoration and the Sierra Club;
- the south valley sewer projects and budget for the "valley utilities project" ($7 million per year for four years) and the breakdown of north versus south valley components;
- how the valley project is the priority;
- that Mesa del Sol and Kirtland are paying the entire cost of their new hookups;
- the status of the request to the federal government for matching money from Senators Domenici and Bingaman and specific budget shares from the respective state and local jurisdictions;
- the status of the 10-year plan, which is expected to be complete in the next four years;
- the status of infrastructure improvements by project and location and the detailed schedule of their completion;
- distribution line routes that have been protested by residents on Campbell Road;
- an explanation for specific route decisions for pipeline construction (Campbell Road is the least expensive and most direct option);
- the total cost of $45 million;
- specific right of way (half of pipeline is on MRGCD right of way);
- a request for public hearings along the route to appease residents for the services they are receiving from the project;
- the assessment fee (both flat or scaled);
- geographic representation on the water authority;
- purview of the conservation plans;
- growth capacity for the future;
- why vegetation is dying in Albuquerque; and

- proposed revisions to the ABCWA legislation.

Anne Watkins, special assistant to the state engineer, was recognized and told the committee that in answer to a question yesterday, Texas could drill a well in New Mexico but would have to apply to the state engineer for a permit to transfer water out of the state; however, enforcement might be a problem.

BOSQUE MANAGEMENT

Marilyn O'Leary, Utton Center, UNM, described a workshop last May at which the Utton Center facilitated stakeholders in development of an outline of principles for bosque management. A priority is obtaining funding to create a common database. The Army Corps of Engineers will use the workshop product to guide its Rio Grande restoration program as will the MRGCD.

Cliff Crawford, professor emeritus in biology at UNM and a specialist on the bosque, said the river is an artifact of what was once a completely different ecosystem. The river is "stuck" now, unlike its previous condition in which it changed course frequently. Wildfire is a major threat now, largely because of the way the river flows and the amount of water that flows into it have been restricted. Evaporation is exacerbated by the restricted flow. However, it could be changed to reduce the constraints and restore the river, he told the committee. The various agencies that affect the river do not always cooperate because they have different purposes and paradigms that they operate under. He said that the goal should be making the river and bosque what it could be — not necessarily what it used to be — since the river is and will continue to be constrained to one channel. The river could be restored to a mosaic of trees, separated by open spaces, and the trees periodically thinned to prevent fires. Sterling Grogan and Mr. Crawford wrote a paper that the workshop focused on. The workshop involved 75 or 80 people. They are working now to formalize the objectives of the workshop. He summarized 10 suggested general approaches to bosque management.

Sterling Grogan, MRGCD, told the committee that there are 180 miles to restore. He said it will be a collaborative effort involving federal agencies, Indian governments, state and local jurisdictions and nongovernment organizations such as the MRGCD. The MRGCD is the local sponsor with the Army Corps of Engineers for the Albuquerque reach. He said there is no funding yet. MRGCD is committed to maintenance of the corps' efforts. Decision-making is ongoing. The speakers agreed that there is no cookbook that can specify exactly what must be done on every square inch of the bosque, and discussions have led to a questioning of many of the assumptions made in the past. The basic principles are a suggestion of how to begin.

The committee asked questions and discussed:

- the role of the Army Corps of Engineers;
- training of those that will do the ground work; and
- an education program that has so far reached 7,000 school children.

ECONOMICS OF WATER UTILITIES

Janie Chermak, professor of economics at UNM, told the committee that there have been rate increases around the west but none are specifically a result of supply. Summer surcharges are typical. Step rate systems make comparison difficult because they use different steps, i.e., 1,000, 5,000, 10,000 or 12,000 gallon thresholds. Tucson is the most aggressive city for making the biggest users pay the most, but its neighbor Phoenix has a flat rate. There does not seem to be any relation to usage. Fort Collins, Colorado, actually reduces rates for the highest users. Los Angeles makes adjustments for different economic strata, for seasons and for different uses. That city is so progressive, she said, that it even increases its rates according to the customer's ability to pay. Every city has a drought plan, but some are pretty weak. Per capita use is still high throughout the west: Albuquerque uses 197 gallons per day per person compared to Tucson's 140 and Denver's 190. She then clarified that Albuquerque's per capita consumption includes an average of 25 gallons per day per person lost through evaporation. The whole 197 gallons may not ever actually reach the customer. Ms. Chermak recommend that the state look at what kind of industry is recruited to New Mexico as it relates to water use.

The committee asked questions and commented on:

- the cost of water security;
- why Santa Fe was not included in the data;
- the $40.00 base rate of Albuquerque;
- the population carrying capacity for New Mexico and Albuquerque and the need to stop growth;
- business development's impact on water use;
- how the cost of living is generally less in New Mexico, which attracts newcomers; and
- the need for developing new sources of water rather than trying to control or stop growth.

The committee then went on a tour of the Rio Grande Bosque at Alameda Boulevard. It also made two more stops at the Anderson Farm and Candaleria Farm to see recent improvements in irrigation efficiency technology and get presentations on Albuquerque's integration of open space with resource management programs.

The committee adjourned at 2:30 p.m.

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

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

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

PRESENT	**ABSENT**
Rep. Joe M Stell, chair	Sen. Joseph J. Carraro
Sen. Carlos R. Cisneros, vice chair	Rep. Joseph Cervantes
Sen. Sue Wilson Beffort (Sept. 7)	Sen. Dede Feldman
Sen. Mary Jane M. Garcia	Rep. James Roger Madalena
Rep. Dona G. Irwin	Rep. Brian K. Moore
Rep. Larry A. Larranaga	Sen. Mary Kay Papen
Rep. Andy Nunez	Sen. Shannon Robinson
Rep. Mimi Stewart	Sen. H. Diane Snyder
	Rep. Don Tripp
	Rep. Robert White

Advisory Members	
Rep. Anna M. Crook	Rep. Ray Begaye
Rep. Rhonda S. King (Sept. 8)	Sen. Gay G. Kernan
Rep. Ben Lujan (Sept. 8)	Sen. Clinton D. Harden, Jr.
Rep. Danice Picraux (Sept. 8)	Sen. Timothy Z. Jennings
Sen. Nancy Rodriguez	Sen. Steve Komadina
Rep. Henry Kiki Saavedra	Sen. Leonard Lee Rawson
Sen. Leonard Tsosie (Sept. 8)	Rep. Eric A. Youngberg
Rep. Peter F. Wirth	

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

Staff
Jon Boller
Gordon Meeks
Jeret Fleetwood

Guests
The guest list is in the original meeting file.

Tuesday, September 7

MOLYCORP SLOPE STABILITY UPDATE

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

Questions and comments from the committee included:

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

STATE WATER TRUST BOARD ACTIVITY UPDATE

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

Questions and comments from the committee included:

- criteria used for choosing the 28 projects that were approved;
- potential funding sources for water projects;
- wastewater treatment; and
- projects in southern New Mexico and the potential for help with funding from the Border Environment Cooperation Commission, the World Bank and North American

Development Bank.

ACEQUIA ISSUES

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

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

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

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

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

David Benavidez, New Mexico Legal Aid, also spoke to the committee regarding water policy issues of concern to acequias. The first of these issues involved the Active Water Resource Management (AWRM) regulations proposed by the SEO. Mr. Benavidez explained that his concerns regarding the AWRM regulations have more to do with their legality than with the SEO not listening and trying to address concerns. He discussed a 1994 opinion of the

attorney general regarding water rights dedications in which the attorney general stated that such dedications were illegal. Mr. Benavidez explained that part of the AWRM regulations, called replacement plans, were very similar to those water rights dedications. He also expressed hope that the protection of prior appropriation customs will be maintained under the AWRM regulations. Mr. Benavidez went on to raise concerns about the AWRM regulations giving the SEO the power to decide on water rights in undeclared basins, noting that that power is usually reserved for the courts. Finally, Mr. Benavidez and Ms. Garcia discussed the project delivery requirements of the AWRM regulations. They explained that those requirements likely will need to be revised to recognize the need of acequias to divert enough water to provide adequate hydraulic head for them to irrigate efficiently. They also suggested that metering unadjudicated amounts of water at acequia diversions would be difficult.

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

Questions and discussion of the committee addressed:

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

MUTUAL DOMESTIC ASSOCIATIONS' WATER RIGHTS

Mary Humphry, an attorney, provided the committee with further comment regarding the SEO's decision not to allow the transfer of domestic well water rights to community wells serving MDCWAs. She began by listing the problems created by a large number of individual domestic wells: quality issues created by leaking septic tanks and individual wells being located too closely to one another; forthcoming Environmental Protection Agency regulations that will

impose even stricter water quality standards; and the impact of the proliferation of these wells on surface water flows. She contrasted those problems with the benefits of community wells used by MDCWAs: a water supply whose quality is easier to monitor and maintain; potentially increased surface flows resulting from discontinued use of shallow individual wells; and the tendency of community water systems to pay for themselves from user fees after the initial infrastructure is laid down. She also noted that MDCWA community wells are often the only way for some communities to get water. Ms. Humphry then pointed out that the benefits of one system providing safe water for a community seem to indicate that communities need to be able to bundle their individual water rights together for a community well and that transfers, such as those the SEO is now denying, are a good way to do that.

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

CLOUD SEEDING

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

Mr. Chapman pointed out that the entire west is in a drought and that it would be shortsighted not to employ every method available for help. He also noted that great scientific advances have made cloud-seeding technology both more feasible and more efficient.

Questions and comments from the committee included:

- effects of silver iodide on environment;
- winter versus summer cloud seeding;
- other potential seeding agents;

- funding contributions from farmers who would benefit from increased precipitation; and
- accuracy of attempts to increase precipitation in target areas.

WATER PROJECT FINANCING

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

Questions and comments from the committee included:

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

STATE ENGINEER'S OFFICE STATUS REPORT

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

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

The committee recessed at 4:50 p.m.

Wednesday, September 8

WATER RESOURCE MODELING — LANL

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

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

Questions and comments from the committee included:

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

WATER RESOURCE MODELING — SANDIA NATIONAL LABORATORIES

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

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

Questions and comments from the committee included:

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

DOMESTIC WELLS AND WATER SUPPLY DEPLETIONS

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

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

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

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

INDIO HISPANO ACADEMY

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

Questions and comments from the committee included:

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

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

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

October 3-5, 2004
Silver City, Deming and Las Cruces

The fifth meeting of the Water and Natural Resources Committee was called to order at 9:10 a.m. on Monday, October 4, 2004, by Representative Joe M Stell, chair.

PRESENT	**ABSENT**
Rep. Joe M Stell, chair	Sen. Carlos R. Cisneros, vice chair
Rep. Joseph Cervantes (Oct. 4 & 5)	Sen. Sue Wilson Beffort
Sen. Dede Feldman (Oct. 5)	Sen. Joseph J. Carraro
Sen. Mary Jane M. Garcia (Oct. 5)	Rep. James Roger Madalena
Rep. Dona G. Irwin	Rep. Brian K. Moore
Rep. Larry A. Larranaga	Sen. Shannon Robinson
Rep. Andy Nunez	Sen. H. Diane Snyder
Sen. Mary Kay Papen	Rep. Don Tripp
Rep. Mimi Stewart	Rep. Robert White

Advisory Members	
Rep. Anna M. Crook (Oct. 4 & 5)	Rep. Ray Begaye
Rep. Danice Picraux (Oct. 4 & 5)	Sen. Clinton D. Harden, Jr.
Sen. Leonard Lee Rawson (Oct. 5)	Sen. Timothy Z. Jennings
Sen. Nancy Rodriguez (Oct 4 & 5)	Sen. Gay G. Kernan
Rep. Peter F. Wirth (Oct. 4 & 5)	Rep. Rhonda S. King
	Sen. Steve Komadina
	Rep. Ben Lujan
	Rep. Henry Kiki Saavedra
	Sen. Leonard Tsosie
	Rep. Eric A. Youngberg

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

Staff
Jon Boller
Gordon Meeks
Jeret Fleetwood

Guests
The guest list is in the original meeting file.

Sunday, October 3

The committee met in Silver City to tour areas of the Gila Wilderness. Howard Hutchinson of the Association of Arizona and New Mexico Counties, who led the tour, took the committee to several different locations, including points along the Gila River, areas where habitat for endangered species has been greatly improved by efforts of the Nature Conservancy, a diversion structure built by Phelps Dodge for the company's Santa Rita Mine and a number of other sites that showcase how environmental, agricultural and other interests have worked together to improve the land.

Monday, October 4 — Deming

The committee began by having members of the audience, committee and staff introduce themselves.

Representative Stell thanked the community of Deming for hosting the committee and Representative Irwin for hosting a dinner held for the committee on Sunday evening.

WATER RIGHTS ADJUDICATIONS — JUDICIAL IMPROVEMENTS

Judge Gerald Valentine provided the committee with an update on the ongoing water adjudication process in New Mexico. He noted that he could not make public comments on cases that are pending, adding that not being able to communicate openly with all of the parties involved in stream adjudications is a problem sometimes. Judge Valentine also noted that a lack of communication exists between the courts and the legislature, suggesting that there should be increased communication between the two branches.

Judge Valentine went on to discuss the formation of water courts in New Mexico. He explained that a number of concepts were considered, and that creation of a water division within each of the 13 judicial districts in the state has been settled on as the strategy that would work best for New Mexico. Judge Valentine pointed out that while Colorado has dedicated water courts, such an arrangement works there because all of the surface water in the state has been adjudicated. He also noted that the Colorado water courts administer water rights in the state, as opposed to the state engineer performing that duty in New Mexico, adding that Colorado has the most expensive water administration system in the country. Judge Valentine explained that while water divisions in each judicial district will likely work better and cost less, training would be required for district judges to ensure that they understand the interconnected nature of water systems in New Mexico. He indicated that some training has already occurred, with more planned for late October, 2004.

Finally, Judge Valentine outlined the idea of creating a water claimant ombudsman in New Mexico. He explained that he believes one of the reasons water adjudications take so long is because of the large number of relatively unsophisticated and unrepresented water rights claimants, rather than real legal conflict, and that an ombudsman could help speed up the process by providing the public with education, information and assistance in understanding water law. Judge Valentine went on to note that the proposed ombudsman would not be part of the judicial branch, but rather would fall under the executive. He suggested that the ombudsman could

become part of the Office of Public Facilitation within the New Mexico Department of Environment (NMED), and he provided the committee with funding scenarios for the office.

Questions and comments focused on other potential agencies of state government that could house the water claimant ombudsman's office.

WATER CONSERVATION PLANS AND WATER BANKING

John D'Antonio, state engineer, provided the committee with testimony regarding water administration in New Mexico. He provided the committee with a brief outline of how the doctrine of prior appropriation forms the basis for water law in the state and how the Office of the State Engineer (OSE) is currently trying to manage the state's water resources through Active Water Resource Management (AWRM). Mr. D'Antonio went on to illustrate water use trends in New Mexico, noting that agricultural use has been declining while municipal, commercial and industrial use has steadily increased. He pointed out that AWRM is one means of developing solutions to manage those trends, particularly through its emphasis on water conservation and water planning.

Mr. D'Antonio stressed the importance of water conservation as one way to make better, more efficient use of the state's limited water resources. He noted that within the sector of municipal, commercial and industrial water use, residential use consumes the most water, pointing out that outdoor landscaping is one of the facets of residential use that provides a good opportunity to conserve a great deal of water. Mr. D'Antonio also discussed the development of water conservation plans, noting that such plans are a requirement of applicants for financial aid from the New Mexico Finance Authority and the Water Trust Board. He explained the various objectives of conservation plans, such as enhancing supply for continued growth, managing demand and balancing long- and short-term views of growth.

Finally, Mr. D'Antonio discussed water banking. He explained that recently enacted legislation allows for water banking along the Pecos River and that informal water banking arrangements exist for acequia and irrigation districts but are not regulated by OSE. Mr. D'Antonio also indicated that water banking may be best addressed by AWRM, particularly through replacement plans, which he said provide a mechanism for curtailed junior users to obtain senior water rights without senior users losing their water rights status.

Questions and comments included:

- the percentage of New Mexico's water resources used by agriculture;
- the definition of water use;
- offering a gross receipts tax credit for water conservation;
- the nature of declining agricultural use versus increasing municipal and industrial use; and
- the effects of drought and population growth on water resources.

Estevan Lopez, director of the Interstate Stream Commission (ISC), and Tanya Trujillo, legal counsel for the ISC, provided the committee with an overview of the agreement crafted between New Mexico and Arizona regarding the use of Gila River water. They explained that

the agreement involves New Mexico reducing its water rights on the Gila River from 18,000 acre-feet to 14,000 acre-feet in exchange for $66 million to spend on water projects and greatly increases flexibility in how much water New Mexico is required to deliver to Arizona. Mr. Lopez and Ms. Trujillo went on to explain that the agreement is part of a large settlement of Native American water rights claims in Arizona. They also pointed out that the $66 million comes from the Lower Basin Development Fund, which consists of revenues paid by power generation plants and water users in the Lower Colorado River Basin, and that this amount could increase to as much as $128 million if New Mexico opts to authorize certain water projects and if interest rates allow the fund to grow to certain levels.

Questions and comments included:

- the chain of events between 2004 and 2012, when funding begins;
- how to begin projects before funding arrives;
- inclusion of the San Francisco River in the Gila agreement; and
- the rationale for giving up 4,000 acre-feet of water.

SOUTHWEST REGIONAL WATER PLAN

John Burkstaller, an engineer for Daniel B. Stevens, Inc., provided the committee with details of the proposed water plan for the southwestern corner of New Mexico. He outlined the basic requirements of regional water plans, such as determining how much water is available, how much will be needed and how best to meet demands for water. Mr. Burkstaller also discussed the process that must be undertaken in order to put a regional water plan in place, such as public involvement, legal issues, water supply assessment and water budgeting, which involves gaining an understanding of the inflow and outflow of water into and out of the region. He then applied the water planning guidelines to the counties that make up the southwestern region: Catron, Grant, Hidalgo and Luna. Mr. Burkstaller discussed water use and projected population growth in each of the counties, then showed how ground water basins, aquifer storage and recovery, the development of ground water resources and watershed management affect the region as a whole. Finally, Mr. Burkstaller noted some alternative means of managing the region's water resources that are receiving a limited amount of analysis, such as management of domestic wells, industrial conservation and rainwater harvesting.

Questions and comments included:

- how strictly 40-year water plans are adhered to; and
- using inverted block water rates to encourage conservation.

SOUTHWEST WATER PLANNING GROUP

Jack Hiatt, attorney for Grant County, provided the committee with an overview of the Southwest Water Planning Group. He explained that the group is made up of 16 political subdivisions — eight municipalities, four counties and four soil and water conservation districts — that have come together to help plan for future water projects in the area. Mr. Hiatt noted that the Gila River agreement requires congressional approval, and that until such approval is given, the planning group is keeping all its options open. He went on to explain that once the Gila

River agreement is approved, the Southwest Water Planning Group faces difficult choices regarding what to do with the water in the Gila River and the money that comes from the Lower Basin Development Fund. Mr. Hiatt also pointed out that it is unlikely that there will be enough water in the Gila River to make transporting it to Deming, Lordsburg or Las Cruces feasible. He also stated that the political subdivisions that make up the Southwest Water Planning Group will likely move from a simple understanding between one another to a joint powers agreement.

Questions and comments included:

- moving water to Las Cruces if the city is able to pay large sums of money for it; and
- participation of environmental groups in the planning group.

WATER RESOURCE APPLICATION PROJECT FOR SOUTH CENTRAL NEW MEXICO

Tom Springer, vice chair of the South Central Mountain Resource Conservation and Development Council (RC&D), provided the committee with an overview of the Water Resource Application Project. He explained that the project began as a series of meetings designed to bring area water stakeholders together to try to work problems out in a fashion similar to the Pecos River Ad Hoc Committee, rather than seeking resolution through court proceedings. Mr. Springer went on to note that the goal of the project is to develop a consensus water plan to address the water shortage in south central New Mexico, and he provided the committee with a report on the progress of the project so far. He also pointed out that the project is not a water authority itself, nor an owner of water rights or water systems, but rather an attempt to develop and begin implementation of a plan for water use in the region. Finally, Mr. Springer indicated that a consensus watershed management plan has already been agreed upon, and showed the committee statistics on which individual watersheds would likely yield the greatest benefit to the region.

WATER AND LAND CONSERVATION TECHNIQUES TOUR

The committee was taken on a tour of several Deming-area farms that show the difference between flood irrigation, older drip irrigation systems and state-of-the-art drip irrigation systems. Owners of the older and state-of-the-art drip systems told the committee that they use significantly less water while yielding larger, more consistent crops as a result of drip irrigation systems. They also provided brief overviews of how the systems work, discussing system control, filtration, placement of the "drip tape" in fields and how the overall system affects the growth of crops such as pecans, green chile, cotton and sorghum.

Tuesday, October 5 — Otero Room, Corbett Center, New Mexico State University, Las Cruces

Chairman Stell thanked New Mexico State University for hosting a reception on Monday evening and for hosting the committee meeting.

Dr. Mike Martin, president of New Mexico State University (NMSU), welcomed the committee to NMSU, noting that water is as important an issue as any facing New Mexico. He also provided the committee with a brief history of land grant colleges, and NMSU in particular,

explaining that the concept of land grant colleges broke with traditional higher education models. Dr. Martin went on to note that his administration seeks to carry on the land grant college tradition.

THE GILA — ECONOMICS AND ECOLOGY OF A FREE-FLOWING STREAM

Dutch Salmon, chair of the Gila Conservation Commission, provided the committee with a water plan he devised for the four-county area that comprises southwestern New Mexico. He explained that his plan would account for consumptive use and growth while at the same time protecting the free-flowing Gila River. Mr. Salmon outlined his plan for Catron, Grant, Hidalgo and Luna counties, noting the population and water resources in each county. He went on to point out that the Phelps Dodge Corporation, which operates the Tyrone and Santa Rita mines in southwestern New Mexico, holds roughly 11,000 acre-feet of water on the Gila River and another 25,000 acre-feet of water in the Mimbres Basin and only uses about 5,000 acre-feet in each area. Mr. Salmon suggested that New Mexico could use all or part of the $66 million from the settlement with Arizona regarding the Gila River to purchase additional water rights from Phelps Dodge to satisfy water needs for the region.

Questions and comments included:

- whether the Phelps Dodge water rights have been adjudicated;
- whether Phelps Dodge can be forced to sell its water rights to Silver City or the state;
- the model for re-allocating private water rights;
- the freezing of water rights in the San Francisco Basin; and
- seniority of New Mexico's water rights on the Gila to Arizona's water rights.

ON-SITE LIQUID WASTE ISSUES

Link Summers, president of the On-site Wastewater Reuse Association, provided the committee with an overview of some of the issues surrounding on-site liquid waste systems. He explained that on-site liquid waste systems are septic tanks, and that while 250,000 exist in New Mexico, only about half of them are regulated. Mr. Summers also noted that reusing wastewater could be a source of clean, though not necessarily potable, water. However, he pointed out that potable water is not necessary for all water uses. Mr. Summers went on to explain that while water conservation and reuse are becoming official policies in Colorado and California, New Mexico has not developed such a policy. He also criticized the NMED for developing wastewater reuse rules that he claims do not make sense, noting that the legislature may have to eventually step in and establish reuse standards. Finally, Mr. Summers noted that NMED is seeking primacy over the National Pollutant Discharge Elimination System (EPDES) Permit Program, currently controlled in New Mexico by the federal Environmental Protection Agency (EPA), adding that he has doubts about whether NMED is capable of taking over such a program.

Questions and comments included:

- whether the local NMED office tries to influence the direction of business and steer economic decisions in the private sector;

- how septic tank technology is over 150 years old;
- possible changes to Wastewater Advisory Board;
- opposition to NMED assuming NPDES authority; and
- the need for certified wastewater treatment plant operators.

Gene Smith, owner of Las Cruces Environmental Systems, a company that produces advanced sewage treatment systems, explained that, currently, 78 million gallons of sewage are introduced into the soil in New Mexico every 24 hours, amounting to 28.5 billion gallons of sewage a year that seeps into ground water and contaminates it. He noted that the advanced treatment systems his company sells and installs can convert wastewater into usable water on a gallon-for-gallon basis, significantly reducing the amount of contaminants introduced into New Mexico's ground water. However, Mr. Smith complained that the NMED field office in Las Cruces is opposed to allowing any system other than traditional septic tanks. He went on to note that he had contacted Anna Marie Ortiz of the NMED, but that she has refused to help him. He did note that he would be meeting with the secretary of environment on October 27.

On a motion made, seconded and unanimously approved, the minutes of the August 10, 2004 meeting were approved as submitted.

On a motion made, seconded and unanimously approved, the minutes of the September 7, 2004 meeting were approved as submitted.

WATER RESOURCE PROTECTION ACT

Beth Bardwell of the World Wildlife Fund provided the committee with a proposal to add a surcharge to water use in New Mexico as a way to finance water projects. She noted that property tax increases, gross receipts tax increases and other revenue streams have been suggested as ways to finance such projects, but argued that a water use surcharge would work best, particularly because tying it to the amount of water used would encourage conservation while other potential funding streams would do little to modify behavior. Ms. Bardwell also provided the committee with a proposed fee schedule, emphasizing that she believes fees would be low for each user and fairly applied to all users. She also produced polling data from the University of New Mexico's Institute for Public Policy showing how concerned New Mexicans are about water and their relative support for a surcharge on water use.

Questions and comments included:

- the cost shift from agricultural users to domestic users;
- hardships created for various groups that would be forced to pay additional costs for water use;
- administrative costs of collecting the surcharge;
- who would decide how to spend the new revenue;
- applying the surcharge to irrigation districts that already collect money from their members for water projects;
- implementing the surcharge in addition to the money the state engineer wants to charge for the active water management rules;

- the fairness of the fee structure;
- imposing surcharges on water supplies that are not adjudicated; and
- allowing entities that would not be subject to the surcharge, such as Indian nations, tribes and pueblos, to make decisions about how the income would be spent.

DRIP IRRIGATION TECHNOLOGY — STATE OF THE ART

Dino Cervantes, a Las Cruces-area farmer, provided the committee with a discussion on the benefits he has seen by implementing drip irrigation technology. He explained why drip irrigation increases efficiency by outlining several of the factors that farmers must take into consideration when planning to irrigate, including hydrology, plant physiology, climate, environment and soil conditions and structure. Mr. Cervantes also discussed how plants actually use water to grow, contrasting the ability of drip irrigation systems to keep soil moisture near the optimum levels for growth with more traditional methods of irrigation and their inability to maintain those soil moisture levels. He also showed the committee examples of plants that have been traditionally irrigated and those that have been drip irrigated, noting the more advanced root structure and higher yield on the plants that have been drip irrigated. Mr. Cervantes went on to outline the economics of drip irrigation systems, explaining that while they do require a large capital investment up-front, they tend to pay off with higher crop yields and lower water use. Finally, Mr. Cervantes noted that only a small percentage of his crops in New Mexico are drip irrigated, partially because of the cost and partially because of his fear that reduced water use could lead to a smaller amount of water being adjudicated to him.

Questions and comments included:

- success of a drip irrigation project in Rincon, New Mexico;
- whether certain soil types work better with drip irrigation than others;
- how the legislature can encourage more farmers to switch to drip irrigation; and
- whether fields with drip irrigation are planted differently than traditionally irrigated ones.

There being no further business, the committee adjourned at 2:00 p.m.

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

November 11-12, 2004
Santa Fe

The sixth meeting of the Water and Natural Resources Committee was called to order at 8:10 a.m. on Thursday, November 11, 2004, by Representative Joe M Stell, chair.

PRESENT
Rep. Joe M Stell, Chair
Sen. Carlos R. Cisneros, Vice Chair
Sen. Sue Wilson Beffort
Rep. Joseph Cervantes
Sen. Dede Feldman
Sen. Mary Jane M. Garcia
Rep. Dona G. Irwin
Rep. Larry A. Larranaga
Rep. James Roger Madalena
Rep. Brian K. Moore
Rep. Andy Nunez
Sen. Mary Kay Papen
Sen. H. Diane Snyder
Rep. Mimi Stewart
Rep. Don Tripp

ABSENT
Sen. Joseph J. Carraro
Sen. Shannon Robinson
Rep. Robert White

Advisory Members
Rep. Ray Begaye
Rep. Anna M. Crook
Sen. Gay G. Kernan (Nov. 11)
Rep. Ben Lujan
Rep. Danice Picraux
Sen. Nancy Rodriguez
Rep. Peter F. Wirth
Sen. Clinton D. Harden, Jr.
Sen. Timothy Z. Jennings
Rep. Rhonda S. King
Sen. Steve Komadina
Sen. Leonard Lee Rawson
Rep. Henry Kiki Saavedra
Sen. Leonard Tsosie
Rep. Eric A. Youngberg

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

Staff
Jon Boller
Gordon Meeks
Jeret Fleetwood

Guests
The guest list is in the original meeting file.

Thursday, November 11

Water Infrastructure Financing

James Jimenez, secretary of finance and administration, provided the committee with an estimate regarding the amount of money available for the legislature to appropriate to various projects during the 2005 legislative session. He explained that the governor has identified water as one of his top priorities, and discussed various ways the executive would like to see water projects addressed. Mr. Jimenez noted that the amount the state has available to pay for water projects falls well short of the total price tag for the projects that need to be undertaken if New Mexicans are to be adequately served. He estimated that funding gap at $2 billion, and outlined strategies that have been developed to address water project financing in the short term. For example, Mr. Jimenez discussed the formation of the Water Infrastructure Technical Team, a cross-agency entity formed to review and evaluate proposed water projects. He also noted that a uniform application process is being developed, which would allow entities seeking water project funding to be able to apply with the New Mexico Finance Authority (NMFA), the Office of the State Engineer (OSE) and various other public and pseudo-public entities with one application. Mr. Jimenez went on to discuss strategies for making more efficient use of the water New Mexico currently has available, such as conservation, desalination, better metering and measuring of water resources and regional or clustered drinking water systems. Finally, he outlined a number of methods for funding water projects in New Mexico, such as: allocating money to the Water Trust Board; expanding the severance tax allocation for water projects up to $20 million; taking advantage of nonrecurring general fund revenue; NMFA grant and loan funds; federal funds; and the governor's Water Innovation Fund. Mr. Jimenez reminded the committee that $10 million had been appropriated by the legislature in 2004 for the governor's Water Innovation Fund, and that the governor would soon be announcing the 26 projects that have been selected.

Mr. Jimenez also presented a list of water projects to the committee, which represent both the water-related projects requested by state agencies and the priority projects cited by local governments and various political subdivisions in the state. He also noted that the local government projects listed are generally ready to begin once they receive funding. Finally, Mr. Jimenez pointed out that the total cost of the projects on the list is $575,329,343.

Questions and comments included:

- local communities' benefits from the financing scheme;
- the fairness and appropriateness of water rates;
- the role of the Department of Finance and Administration in water project prioritization;
- the Water Infrastructure Technical Review Team;
- the adequacy OSE adjudication financing;
- water innovation projects for agricultural efficiency;
- the governor's identified priorities;

- communications by the governor to legislators for early understanding of governor's intentions;
- the intent to work with the legislature and relevant agencies to coordinate funding;
- Albuquerque's method of funding its portion of the San Juan/Chama project;
- the requirements for operational expenses and local matching money for projects;
- the competition for funding between water projects and other capital requirements;
- the regionalization of water systems and receptiveness of communities to this approach;
- the critical needs assessment and balance of needs for fairness;
- superfund issues within water system needs;
- federal money devoted to New Mexico water needs;
- roles of the interim Water and Natural Resources Committee in review of water capital projects; and
- the Gallup-Navajo pipeline and other mega-projects that are not on the list.

Settlements: Navajo, *Aamodt* and Taos

John D'Antonio, state engineer, and DL Sanders, general counsel for the OSE, provided the committee with an overview of the status of three Native American water rights settlements occurring in New Mexico. They explained that the Navajo, *Aamodt* and Taos water rights settlements are not yet complete, but that implementation of each of them will cost the state a large sum of money. As a means of funding the implementation of the settlements, Mr. D'Antonio and Mr. Sanders provided the committee with a proposal to create an Indian Water Rights Settlement Fund. They explained that placing money in a fund now will allow funds to be available to implement the settlements when the time comes to do so, pointing out that sooner or later funds will be required for implementation of the settlements. Mr. D'Antonio and Mr. Sanders also noted that by choosing or declining to place money in the settlement fund, the legislature will be guaranteed some input into the settlements, since declining to fund the settlement implementation will effectively void the settlements. They also emphasized that the legislature could opt to place money in the settlement fund for the purpose of funding the implementation of particular settlements and not others, if it sees fit. Finally, Mr. D'Antonio and Mr. Sanders pointed out that each settlement will provide a better source of water to New Mexicans, and that not providing funds for the implementation of the settlements will prolong the already lengthy settlement negotiation process.

Questions and comments included:

- whether Taos-area constituents support the Taos water rights settlement

Healthy Forest Initiative

Butch Blazer, state forester, provided the committee with an overview of the New Mexico Forest and Watershed Health Plan (NMFWHP). He explained that catastrophic wildfires during the past few years have led federal and state governments, including New Mexico, to begin paying closer attention to forest and watershed health. Mr. Blazer noted that many forests and watersheds have fallen into poor health due to over-dense fuels, invasive species, decreased biodiversity and decreased wildlife habitat. He also stated that the governor has called for a forest health plan and provided the committee with an overview of the development of such a plan. Mr. Blazer noted that federal, state, tribal, private, academic and industrial stakeholders

have been involved in the development of the forest health plan, and that through various meetings and public comments, a forest health plan had been developed and revised and is currently being finalized for approval. He cautioned the committee that implementing such a plan will cost a significant amount of money, but that one facet of the NMFWHP is to facilitate and streamline work being done on forests and watersheds to maximize the value of every dollar spent.

Mr. Blazer presented the committee with the latest draft of the NMFWHP, noting the plan's vision, guiding principles and recommendations for state and local action.

Interagency Phreatophyte/ Watershed Work Group

Miley Gonzalez, secretary of agriculture, provided the committee with an update on the work done by the Interagency Phreatophyte/Watershed Work Group. He explained that the work group, which was enabled by House Bill 2 in 2004, is composed of representatives from various state agencies, tribal governments and soil and water conservation districts. Mr. Gonzalez went on to discuss how the money appropriated to the work group has been spent, noting that by the end of 2004, over 8,000 acres will have been treated for phreatophytes, particularly salt cedar. He provided the committee with a breakdown of both the number of acres treated in various areas of the state and the methods used in those areas. Mr. Gonzales also pointed out that methods for phreatophyte control include mechanical removal, aerial spraying and, in some cases, goats. Finally, Mr. Gonzalez noted that the NMFWHP is a parallel effort to the work group and emphasized the importance of both.

Questions and comments included:

- re-vegetation of treated areas;
- effectiveness of using goats for phreatophyte control; and
- work done on the middle Rio Grande.

On a motion made, seconded and unanimously approved, the minutes of the October 3-5, 2004 meeting were approved as submitted.

Conservation Funding Initiatives

Bruce Thompson, director of the Department of Game and Fish, provided the committee with testimony regarding conservation measures in New Mexico. He pointed out that New Mexico currently does not have sustainable funding for land and wildlife conservation programs. Mr. Thompson pointed out that several other states, such as California, Nevada, Arizona and Colorado, have developed sustainable funding mechanisms for such programs through bond measures, cigarette taxes, lottery and gaming revenue and general fund money. He also noted that wildlife and recreation are vital to New Mexico's economy because of the large number of out-of-state visitors who come to New Mexico for activities such as hunting, fishing and camping. Mr. Thompson went on to point out that by not devoting funding to land and water conservation programs, New Mexico is not receiving large amounts of federal matching funds that could help pay for such programs. Finally, he cited polling data that shows most citizens are largely in favor of conservation and are willing to pay for it somehow.

Questions and comments included:

- amounts required to begin and operate conservation programs;
- income generated from voluntary donations on income tax return forms;

- how the Department of Game and Fish used to be self-sustaining from revenue generated by the sale of hunting licenses;
- the reduction in the size of deer herds in New Mexico; and
- the size of deer herds in Texas.

David Henderson, New Mexico Audubon Society director, noted that many out-of-state visitors come to New Mexico for activities such as elk watching. He pointed out that in the past year, elk watching groups in the Valles Caldera area have accounted for more revenue than elk hunters.

Questions and comments included:

- that visitors from other areas of the country come to New Mexico to view what many New Mexicans view as commonplace; and
- the revenue generated by the Share with Wildlife license plates.

Rio Grande Legal Status Report

Estevan Lopez, director of the Interstate Stream Commission (ISC), and Tanya Trujillo, general counsel for the ISC, provided the committee with an update regarding the legal disposition of endangered species along the Rio Grande, particularly the Southwestern willow flycatcher and the Rio Grande silvery minnow. They first provided the committee with a brief history of issues involving the Southwestern willow flycatcher, noting that the area designated as critical habitat for the flycatcher has been revised to include areas along the upper and middle Rio Grande. Mr. Lopez and Ms. Trujillo also noted that a significant problem is developing regarding flycatcher habitat near Elephant Butte Reservoir. They explained that a significant population of flycatchers has moved into an area at the upper end of the reservoir, which was once under water but is currently dry due to the decreasing size of the reservoir. Mr. Lopez and Ms. Trujillo went on to explain that having flycatchers nesting in areas that will likely be under water once the reservoir begins to rise again could present a serious problem.

Mr. Lopez and Ms. Trujillo also discussed the status of the lawsuit regarding the Rio Grande silvery minnow. They added that the minnow population continues to grow and outlined some of the efforts underway to improve minnow habitat and population numbers.

Mr. Lopez and Ms. Trujillo went on to discuss several other legal issues, including the designation of the Rio Chama as a "wild and scenic river", active water resource management and legal issues involving the lower Rio Grande and the Pecos River.

Questions and comments included:

- the number of farmland acres purchased by the state to retire water rights;
- the nature of the wild and scenic river designation;
- the cost of water rights acquisitions on the Pecos River;
- benefits of having a priority call on junior Pecos River users;
- reasons for expansion of Southwestern willow flycatcher habitat near Elephant Butte;
- active water resource management in the lower Rio Grande;
- limited use agreements and metering of Pecos River users; and
- objections to the Pecos River settlement.

Ground Water Conjunctive Management

Peggy Johnson of the Bureau of Geology and Mineral Resources at the New Mexico Institute of Mining and Technology and Tom Morrison, chief hydrologist at the OSE, provided the committee with an overview of the basics of ground water modeling. They explained that ground water models help illustrate the relationship between surface flows, aquifers and wells. Ms. Johnson and Mr. Morrison also showed the committee how ground water models can be used to design and manage well fields, protect water resources and help with water-related litigation. They also provided the committee with a map showing the various OSE models and explained some of the details concerning those models.

Questions and comments included:

- recharge dynamics;
- how evaporation exceeds recharge;
- the distance between wells to avoid impairment;
- the age of aquifer waters; and
- the benefits of field trips and the Decision Makers Conferences.

Anne Watkins, special assistant to the state engineer, provided the committee with a discussion regarding the regional clustering of water systems. She explained that there are close to 1,400 drinking water systems scattered across New Mexico, most of them small ones, and many that overlap one another. Ms. Watkins went on to note that there simply are not enough water rights, water resources or funding available for all of those systems to be able to continue to function. She noted that the best solution to this growing problem is the consolidation and cooperation of water systems. Ms. Watkins indicated that while consolidating, or clustering, water systems will be initially costly, such a strategy would also make better use of available water resources by being more efficient. As an example, Ms. Watkins stated that many of the emergency requests the OSE received for water were due to failing water systems, not drought conditions. She also noted other areas that have consolidated their water systems and saved both water and operating costs.

Questions and comments included:

- the best method of interconnecting water systems;
- the appropriate state share of funding the clustering of water systems; and
- the NMFA Oversight Committee's response to the concept of consolidation of water systems.

The committee recessed at 5:20 p.m.

Friday, November 12

Proposals for Legislation

The committee discussed and endorsed the following measures for introduction in the next regular legislative session:

1. NMSU Water Resources Research Institute creation and funding;
2. agricultural water conservation expenses, income and corporate income tax credits;
3. produced water tax credits;
4. acequia protection measures;
5. a memorial on creation of water authorities;
6. Indian Water Rights Settlement Fund;
7. strategic water reserve;
8. creation of a Water Rights Ombudsman Office; and
9. Water Trust Fund appropriation.

Pre-1907 Water Rights

Corky Herkenhoff of the Middle Rio Grande Water Rights Association provided the committee with an overview of the dispute regarding pre-1907 water rights. He explained that the state engineer does not recognize the water rights of some individuals with pre-1907 water rights, mostly because the OSE refers to a 1917 ditch survey to determine water rights. However, Mr. Herkenhoff contended that some water rights that did exist before 1907 were not reflected in the 1917 survey. He went on to explain to the committee that the simplest remedy to the dispute would be to amend Section 72-2-16 NMSA 1978, noting that a bill doing so passed the legislature during the 2004 session but was vetoed by the governor.

Questions and comments included:

- the reason for the governor's veto;
- an example of how the state engineer's criteria works;
- how pre-1907 rights are the only rights available for transfers to other uses;
- the estimated percentage of water rights that are pre-1907 rights;
- de novo appeal of the OSE; and
- percentage of OSE decisions that go to appeal in district court.

Sustainable Energy Initiative

Ned Farquhar, special assistant to the governor on energy and environment, provided the committee with testimony regarding a clean energy program in New Mexico. He explained that other states are currently moving forward with clean energy requirements, most notably California and Colorado. Mr. Farquhar pointed out that initiatives in California and Colorado provide New Mexico with a valuable opportunity to develop clean energy programs that can be used to sell power to those states. He also emphasized that rising oil and natural gas prices make developing clean, sustainable energy programs an even more urgent priority.

Mr. Farquhar went on to explain that while the governor has formed a task force to study clean energy initiatives, that task force will not be recommending any legislation for a few more weeks. However, Mr. Farquhar did provide the committee with a list of legislation the task force

is likely to suggest, including tax credits, a Clean Energy Fund, biomass development and public transportation for state employees.

Questions and comments included:

- tax incentives for "green" buildings;
- the difference between power transmission and distribution;
- biomass initiatives; and
- previous use of solar panels as clean energy.

Endangered Species Collaborative

Eileen Grevey Hillson, a member of the Water Trust Board, provided the committee with an overview of the Middle Rio Grande Endangered Species Act Collaborative Program. She explained that the collaborative program is made up of 21 governmental, environmental, business and university entities, all of whom share an interest in developing long-term solutions to Endangered Species Act issues along the middle Rio Grande. Ms. Grevey Hillson provided the committee with a brief history of the collaborative program, explaining that the 21 entities involved are signatories on a Memorandum of Understanding, and that the program basically grew as a response to the lawsuit involving the Rio Grande silvery minnow. She went on to provide an overview of the collaborative program's funding sources, which are mostly write-in funding from Congress, although New Mexico has also contributed over $6 million. Ms. Grevey Hillson then outlined some of the projects the collaborative program has been involved in, particularly habitat restoration projects along the Rio Grande. Finally, she emphasized that the collaborative program's main goals are to provide decision making at a local level, rather than entities in Washington, D.C., making decisions regarding the Rio Grande, and to avoid costly and contentious lawsuits involving endangered species along the Rio Grande.

Ralph Peterson-Schmidt informed the committee that real improvements have been made along the Rio Grande and that more silvery minnows are currently being harvested than ever before. He also discussed minnow population management strategies, habitat restoration programs and possible water management strategies, such as improved measurement and metering of water flows.

Questions and comments included:

- habitat restoration work above Cochiti Lake;
- progress of 10-year plan for minnow recovery;
- numbers required to de-list the silvery minnow and Southwestern willow flycatcher; and
- participation of Native American entities in the collaborative program.

Water Trust Board

Ms. Grevey Hillson provided the committee with a summary of the projects the board is considering. She explained that the board has received 99 letters of interest with requests for funding totaling $850 million and that 27 of those applications have been selected. Ms. Grevey Hillson indicated that the projects selected total about $22 million, which she noted is roughly the bonding capacity available to the Water Trust Board. She also discussed a criteria committee appointed by State Engineer D'Antonio; potential funding mechanisms for water projects, particularly water system improvements; and the potential for federal funding to stop at any time.

Trudy Valerio Healy, another Water Trust Board member, provided the committee with an overview of the makeup of the trust board. She noted that most water stakeholders are represented on the board. Ms. Valerio Healy also discussed the trust board's need for a project manager to perform such duties as processing applications and doing field work that the board itself is unable to do.

Paula Garcia, another Water Trust Board member, echoed the comments made by Ms. Grevey Hillson and Ms. Valerio Healy. She also noted that currently, the board's administrative costs are paid by the NMFA. Ms. Garcia pointed out that while the board has no clear way to administer project oversight, there remains some debate about how best to accomplish that.

Questions and comments included:

- whether applications for funds have been received from Albuquerque-area entities;
- local participation in funding for each project;
- the scoring system for selection of projects to receive funding;
- the effect of new arsenic standards on water systems.

NMSU Water Research and Education Projects

Craig Runyon of the New Mexico State University College of Agriculture and Home Economics provided the committee with an overview of the various NMSU programs involving water resources, particularly the programs undertaken by the Center for Applied Remote Sensing in Agriculture, Meteorology and Environment (CARSAME). He explained that the CARSAME Program involves the application of space technology for solutions to water problems. For example, Mr. Runyon outlined the Semi-distributed Land-use Run-off Process (SLURP), which uses satellite imagery to identify and define hydrologic conditions in the Rio Grande Basin.

Bernhard Leinauer of NMSU's Turf Research Program provided the committee with an overview of the Arid Urban Turfgrass Program at NMSU. He explained that the program is primarily used to improve the grass grown on golf courses, but he also pointed out that the 2004 Super Bowl was played on turf developed at NMSU. Mr. Leinauer went on to discuss the value of golf to New Mexico's economy, noting that estimates place the amount generated by greens fees, cart rentals and various other golf-related expenses at $120 million per year. He also noted that while golf courses do not require potable water, the types of turf grown on golf courses that are watered with treated effluent will be somewhat different from turf used on courses watered with potable water. Mr. Leinauer went on to explain that different types of turf require different methods of course management, and that while NMSU does offer some golf course management classes, they are not specific to effluent-watered courses. He noted that effluent-watered courses looking for superintendents may be forced to look out of state for candidates, rather than at graduates of the NMSU program.

Questions and comments included:

- the value of encouraging golf courses to consume less water;
- conversion from potable water delivery system to effluent lines;
- whether turf developed at NMSU could be used for city parks; and
- the value of golf-specific presentations.

Dean Jerry Schickedanz of the NMSU College of Agriculture and Home Economics thanked the committee for hearing from his department.

Questions and comments included:

- funding for NMSU viticulturist; and
- funding request for the NMSU Turf Program.

Linda Taylor, also of NMSU, provided the committee with a discussion of the various projects involving waste wood that are currently underway around the state. She explained that much of the work being done on watershed thinning and phreatophyte control produces a tremendous amount of waste wood, and that such wood provides a number of economic development opportunities to rural communities in New Mexico. For example, Ms. Taylor showed the committee examples of the charcoal produced by partially burning the waste wood. She also noted that the waste wood is valuable for mushroom cultivation, but that a state microbiologist position would be beneficial to further such cultivation efforts.

Representative Stell thanked the committee members, staff, presenters and the audience for their involvement with the committee over the course of the interim.

There being no further business, the committee adjourned at 4:25 p.m.

ENDORSED BILLS

HOUSE BILL

47TH LEGISLATURE - STATE OF NEW MEXICO - FIRST SESSION, 2005

INTRODUCED BY

DISCUSSION DRAFT

AN ACT

RELATING TO HIGHER EDUCATION; CREATING THE WATER RESOURCES RESEARCH INSTITUTE; MAKING AN APPROPRIATION.

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

Section 1. WATER RESOURCES RESEARCH INSTITUTE CREATED--PURPOSE.--

A. The "water resources research institute" is created and shall be a division of New Mexico state university.

B. Participating institutions associated with the water resources research institute shall be New Mexico state university, the university of New Mexico, New Mexico institute of mining and technology, New Mexico highlands university, eastern New Mexico university and western New Mexico university. The purposes of the institute are to:

(1) provide research and training in water

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conservation, planning and management; atmospheric-surface-ground water relations; and water quality;

(2) transfer water information through the use of technical and miscellaneous publications, newsletters, conferences and presentations;

(3) provide expertise, specialized assistance and information to address water problems; and

(4) cooperate with local, state and federal water agencies.

C. The board of regents of New Mexico state university shall prepare reports showing the progress and condition of the water resources research institute as the board deems necessary. The reports of the institute may be printed and distributed by the board as appropriate, and revenue from the sale of the reports shall be paid into the account of New Mexico state university.

D. The water resources research institute may receive appropriations from the legislature through the board of regents of New Mexico state university and may receive any other items of value from public or private sources.

Section 2. APPROPRIATION.--Two hundred thousand dollars ($200,000) is appropriated from the general fund to the board of regents of New Mexico state university for expenditure in fiscal year 2006 for the water resources research institute to increase research in water conservation, planning and

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management. Any unexpended or unencumbered balance remaining at the end of fiscal year 2006 shall revert to the general fund.

HOUSE BILL

47TH LEGISLATURE - STATE OF NEW MEXICO - FIRST SESSION, 2005

INTRODUCED BY

DISCUSSION DRAFT

AN ACT

RELATING TO TAXATION; PROVIDING A PERSONAL INCOME TAX CREDIT AND A CORPORATE INCOME TAX CREDIT FOR AGRICULTURAL WATER CONSERVATION EXPENSES; PROVIDING FOR A DELAYED REPEAL.

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

Section 1. A new section of the Income Tax Act is enacted to read:

"[NEW MATERIAL] TAX CREDIT--AGRICULTURAL WATER CONSERVATION EXPENSES.--

A. A taxpayer may claim a credit against the taxpayer's income tax liability equal to seventy-five percent of incurred expenses, not to exceed a maximum annual credit of ten thousand dollars ($10,000), for eligible improvements in irrigation systems or water management methods. The credit may be claimed for the taxable year in which the expenses are

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incurred if the taxpayer:

(1) in that year owned or leased a water right appurtenant to the land on which an eligible improvement was made;

(2) files an individual New Mexico income tax return for that year;

(3) in that year is not a dependent of another individual; and

(4) does not take a tax credit for the same expense on any corporate tax return filed by the taxpayer.

B. As used in this section, "eligible improvement in irrigation systems or water management methods" means an improvement that is:

(1) made after January 1, 2006;

(2) consistent and complies with a water conservation plan approved by the local soil and water conservation district in which the improvement is located; and

(3) primarily designed to substantially conserve water on land in New Mexico that is owned or leased by the taxpayer and used by the taxpayer or the taxpayer's lessee to:

(a) produce agricultural products;

(b) harvest or grow trees; or

(c) sustain livestock.

C. Taxpayers who are considered for federal income

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tax purposes as co-owners of the land on which an eligible improvement in irrigation systems or water management methods is made may claim the pro rata share of the credit allowed pursuant to this section based on the co-owner's ownership interest. The total of the credits allowed all the taxpayers considered co-owners may not exceed the amount that would have been allowed a sole owner of the land.

D. A husband and wife who file separate returns for a taxable year in which they could have filed a joint return may each claim only one-half of the credit that would have been allowed on a joint return.

E. If the allowable tax credit in a taxable year exceeds the income taxes otherwise due from a taxpayer pursuant to the Income Tax Act, or if there are no income taxes due from the taxpayer, the taxpayer may carry forward the amount of the credit not used in that year to offset the taxpayer's liability for income taxes pursuant to the Income Tax Act for not more than five consecutive taxable years.

F. The soil and water conservation commission, with information provided by the state engineer, shall promulgate rules to implement this section, and those rules shall include detailed guidelines to assist the department in determining whether improvements in irrigation systems or water management methods qualify for the credit available under this section.

G. A taxpayer claiming the credit shall provide

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documentary evidence of the amount of water conserved during the period for which the credit is claimed if requested by the department.

H. Water conserved due to improvements in irrigation systems or water management methods and for which a credit is claimed shall not be subject to abandonment or forfeiture, not shall the conserved water be put to consumptive beneficial use."

Section 2. A new section of the Corporate Income and Franchise Tax Act is enacted to read:

"[NEW MATERIAL] TAX CREDIT--AGRICULTURAL WATER CONSERVATION EXPENSES.--

A. A taxpayer may claim a credit against the taxpayer's corporate income tax liability equal to seventy-five percent of incurred expenses, not to exceed a maximum annual credit of ten thousand dollars ($10,000), for eligible improvements in irrigation systems or water management methods. The credit may be claimed for the taxable year in which the expenses are incurred if the taxpayer:

(1) in that year owned or leased a water right appurtenant to the land on which an eligible improvement was made; and

(2) files a New Mexico corporate income tax return for that year.

B. As used in this section, "eligible improvement

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in irrigation systems or water management methods" means an improvement that is:

(1) made after January 1, 2006;

(2) consistent and complies with a water conservation plan approved by the local soil and water conservation district in which the improvement is located; and

(3) primarily designed to substantially conserve water on land in New Mexico that is owned or leased by the taxpayer and used by the taxpayer or the taxpayer's lessee to:

(a) produce agricultural products;

(b) harvest or grow trees; or

(c) sustain livestock.

C. Taxpayers that are considered for federal income tax purposes as co-owners of the land, or co-owners of a pass-through entity that owns the land, on which an eligible improvement in irrigation systems or water management methods is made may claim the pro rata share of the credit allowed pursuant to this section based on the co-owner's ownership interest. The total of the credits allowed all the taxpayers considered co-owners may not exceed the amount that would have been allowed a sole owner of the land.

D. If the allowable tax credit in a taxable year exceeds the corporate income taxes otherwise due from a taxpayer pursuant to the Corporate Income and Franchise Tax

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Act, or if there are no taxes due pursuant to the Corporate Income and Franchise Tax Act, the taxpayer may carry forward the amount of the credit not used in that year to offset the taxpayer's liability for corporate income taxes pursuant to the Corporate Income and Franchise Tax Act for not more than five consecutive tax years.

E. The soil and water conservation commission, with information provided by the state engineer, shall promulgate rules to implement this section, including detailed guidelines to assist the department in determining whether improvements in irrigation systems or water management methods qualify for the credit available under this section.

F. A taxpayer claiming the credit shall provide documentary evidence of the amount of water conserved during the period for which the credit is claimed if requested by the department.

G. Water conserved due to improvements in irrigation systems or water management methods and for which a credit is claimed shall not be subject to abandonment or forfeiture, nor shall the conserved water be put to consumptive beneficial use."

Section 3. CONTINUED APPLICABILITY OF TAX CREDIT.--The balance of a tax credit granted before December 31, 2010 to a taxpayer pursuant to Section 1 or 2 of this act may be applied after that date in the manner provided for in Section 1 or 2 of

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this act against the taxpayer's personal or corporate income tax liability, as applicable, as if the provisions of Sections 1 and 2 of this act were still in effect.

Section 4. DELAYED REPEAL.--Sections 1 and 2 of this act are repealed effective January 1, 2011. Section 3 of this act is repealed effective January 1, 2015.

Section 5. APPLICABILITY.--The provisions of this act apply to taxable years beginning on and after January 1, 2006 and ending on or before December 31, 2010.

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BILL

47TH LEGISLATURE - STATE OF NEW MEXICO - FIRST SESSION, 2005

INTRODUCED BY

DISCUSSION DRAFT

FOR THE WATER AND NATURAL RESOURCES COMMITTEE AND

THE REVENUE STABILIZATION AND TAX POLICY COMMITTEE

AN ACT

RELATING TO TAXATION; PROVIDING A CORPORATE INCOME TAX CREDIT FOR THE GATHERING, TRANSPORTING OR TREATMENT OF PRODUCED WATER FOR DISPOSITION IN THE GENERATION OF ELECTRICITY.

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

Section 1. A new section of the Corporate Income and Franchise Tax Act is enacted to read:

"[NEW MATERIAL] CREDIT--DISPOSITION OF GATHERED, TRANSPORTED OR TREATED PRODUCED WATER.--

A. A taxpayer that gathers, transports or treats produced water, which is disposed of in the process of generating electricity, may claim a tax credit for the taxable year in which the disposition of the water occurs if the disposition of the water is in accordance with rules promulgated by the oil conservation division of the energy,

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minerals and natural resources department. The tax credit shall be an amount equal to one thousand dollars ($1,000) per acre-foot of the produced water disposed of in the taxable year; provided that the total tax credit to all claimants shall not exceed three million dollars ($3,000,000) in a taxable year; and provided further that the total accumulated tax credits claimed by the taxpayer over time shall not exceed fifty percent of the capital cost of equipment for gathering, transporting or treating the produced water that is disposed of in an electric generating facility.

B. A taxpayer may apply for certification of eligibility for the tax credit provided in this section from the energy, minerals and natural resources department, which shall determine if the produced water is disposed of in accordance with rules promulgated pursuant to Subsection B of Section 70-2-12 NMSA 1978 and shall determine the amount of that produced water that has been used in the taxable year in the generation of electricity. The energy, minerals and natural resources department shall issue to the applicant a certification of eligibility containing this information.

C. To claim the tax credit provided in this section, a taxpayer shall submit to the taxation and revenue department a certification of eligibility issued by the energy, minerals and natural resources department pursuant to Subsection B of this section, along with any other information

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the taxation and revenue department may require to determine the amount of the tax credit due the taxpayer.

D. The tax credit provided in this section may be deducted from the taxpayer's corporate income tax liability for the taxable year. If the amount of the tax credit claimed exceeds the taxpayer's corporate income tax liability, the credit may be carried forward for up to three consecutive years.

E. As used in this section, "produced water" means water that is an incidental byproduct from drilling for or production of oil or gas."

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SENATE BILL

47TH LEGISLATURE - STATE OF NEW MEXICO - FIRST SESSION, 2005

INTRODUCED BY

DISCUSSION DRAFT

AN ACT

RELATING TO WATER; PROVIDING FOR A STRATEGIC WATER RESERVE; PROVIDING FOR ADDITIONAL POWERS AND DUTIES OF THE INTERSTATE STREAM COMMISSION; AUTHORIZING THE ISSUANCE OF SEVERANCE TAX BONDS FOR THE ACQUISITION OF WATER, WATER RIGHTS AND WATER STORAGE FOR THE STRATEGIC WATER RESERVE; MAKING AN APPROPRIATION.

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

Section 1. A new section of Chapter 72, Article 14 NMSA 1978 is enacted to read:

"[NEW MATERIAL] INTERSTATE STREAM COMMISSION--ADDITIONAL POWERS--STRATEGIC WATER RESERVE.--

A. The interstate stream commission shall establish a strategic water reserve and may purchase or lease from willing sellers or lessors or receive through donation surface

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water or water rights or storage rights to compose the reserve. The commission may also purchase or lease from willing sellers or lessors or receive by donation underground water or water rights for the strategic water reserve for cessation of pumping or limited short-term stream augmentation. At no time shall the use of water or water rights held by the strategic water reserve result in an increase in net depletions in any basin. The commission shall pay no more than the appraised market value to purchase or lease water or water rights and storage rights for the strategic water reserve. The commission may accept money or grants from federal or other governmental entities or other persons to purchase or lease water or water rights for the strategic water reserve and to pay administrative costs. The commission shall not acquire water or water rights that are served by or owned by an acequia or community ditch established pursuant to Chapter 73, Articles 2 and 3 NMSA 1978 for inclusion in the strategic water reserve. The commission shall not acquire water or water rights that are served by an irrigation district established pursuant to Chapter 73, Article 10 NMSA 1978, except through contractual arrangement with the district board of directors or as a special water users association established pursuant to Chapter 73, Article 10 NMSA 1978, but nothing herein shall be construed to prohibit or limit the commission's acquisition of water rights necessary to complete full implementation of the Pecos

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river Carlsbad irrigation district settlement. The commission shall acquire only water rights recognized by the state engineer to have sufficient seniority and consistent, historic beneficial use to effectively contribute to the purpose of the strategic water reserve. The commission shall not acquire water or water rights for the strategic water reserve by condemnation. Water in the strategic water reserve shall not be subject to forfeiture pursuant to Chapter 72 NMSA 1978. Water or water rights shall only be acquired with the explicit approval of the commission.

B. Water and water rights in the strategic water reserve shall be used to:

(1) assist the state in complying with interstate stream compacts and court decrees; or

(2) assist the state and water users in complying with the federal Endangered Species Act of 1973 as part of a collaboratively developed compliance program involving state and federal agencies and water users or in a program intended to avoid additional listings of species. Use of the strategic water reserve pursuant to this paragraph shall be limited to aquatic or obligate riparian species.

C. The interstate stream commission shall develop river reach or ground water basin priorities for the acquisition of water or water rights and storage rights for the strategic water reserve in consultation with the New Mexico

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interstate stream compact commissioners, the office of the state engineer and the attorney general's office. For each river reach or ground water basin, additional prioritization shall be developed in coordination with the governing bodies of the following organizations within the affected river reach or ground water basin:

(1) Indian nations, tribes and pueblos;

(2) boards of county commissioners;

(3) special districts established pursuant to Chapter 73 NMSA 1978;

(4) soil and water conservation districts;

(5) water authorities; and

(6) water planning regions.

D. The interstate stream commission may sell or lease water or water rights from the strategic water reserve at no less than the appraised market value. The commission may sell water rights only if the rights are no longer necessary for the purposes for which they were acquired for the reserve; provided that water rights in the reserve shall not be sold to the United States. Pursuant to a sale of water rights from the strategic water reserve by the interstate stream commission, the commission shall first make the offer of sale for the original purpose of use. Proceeds of any sale are appropriated to the office of the state engineer to adjudicate water rights. Proceeds of any leases are appropriated to the interstate

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stream commission for carrying out the purposes of the strategic water reserve.

E. Water or water rights acquired for the strategic water reserve or water or water rights sold or leased from the reserve shall remain in their river reach or ground water basin of origin.

F. Transactions with members of an irrigation or conservancy district established pursuant to Chapter 73 NMSA 1978 shall provide for the strategic water reserve to pay the annual assessment to the district that would accrue to the district absent the transaction.

G. Cumulative impacts of the strategic water reserve acquisitions and uses shall not adversely affect existing water users or delivery systems.

H. The interstate stream commission shall adopt rules consistent with the terms of this section, including rules to ensure:

(1) that water and water rights acquired for the strategic water reserve are used only for the purposes of the reserve; and

(2) adequate public notice in each affected area for the acquisition or disposal of water rights.

I. The interstate stream commission shall annually report to the appropriate committee of the legislature on the status of the strategic water reserve."

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Section 2. A new section of the Severance Tax Bonding Act is enacted to read:

"[NEW MATERIAL] BONDING CAPACITY--AUTHORIZING ISSUANCE OF SEVERANCE TAX BONDS FOR THE STRATEGIC WATER RESERVE.--

A. By January 15 of each year, the board of finance division of the department of finance and administration shall estimate the amount of bonding capacity available for severance tax bonds to be authorized by the legislature. The division shall authorize three percent of the estimated bonding capacity each year beginning in fiscal year 2005 and ending in fiscal year 2025 and the state board of finance shall issue severance tax bonds in the annually deducted amount for use by the interstate stream commission for the acquisition and leasing of water, water rights and storage rights for the strategic water reserve and its administrative costs.

B. The interstate stream commission shall certify to the state board of finance the need for issuance of bonds for acquisition of water, water rights and storage rights for the strategic water reserve. The state board of finance may issue and sell the bonds in the same manner as other severance tax bonds in an amount not to exceed the authorized amount provided for in this section. If necessary, the state board of finance shall take the appropriate steps to comply with the federal Internal Revenue Code of 1986. Proceeds from the sale of the bonds are appropriated to the interstate stream

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commission to acquire and lease water, water rights and storage rights for the strategic water reserve and its administrative costs.

C. Any unexpended balance from proceeds of severance tax bonds issued for the strategic water reserve shall revert to the severance tax bonding fund as of the first day after the end of the tenth fiscal year following the fiscal year in which the severance tax bonds were issued, after reserving for unpaid costs and expenses covered by binding written obligations to third parties."

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HOUSE BILL

47TH LEGISLATURE - STATE OF NEW MEXICO - FIRST SESSION, 2005

INTRODUCED BY

DISCUSSION DRAFT

AN ACT

MAKING AN APPROPRIATION TO THE ADMINISTRATIVE OFFICE OF THE COURTS FOR AN OFFICE OF WATER RIGHTS OMBUDSMAN.

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

Section 1. APPROPRIATION.--Three hundred thirty-two thousand four hundred dollars ($332,400) is appropriated from the general fund to the administrative office of the courts for expenditure in fiscal year 2006 for personnel, equipment, office space and administrative overhead to establish an office of water rights ombudsman to provide public education statewide on water rights and to assist water rights claimants and the courts in adjudication of water rights. Any unexpended or unencumbered balance remaining at the end of fiscal year 2006 shall revert to the general fund.

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HOUSE BILL

47TH LEGISLATURE - STATE OF NEW MEXICO - FIRST SESSION, 2005

INTRODUCED BY

DISCUSSION DRAFT

AN ACT

MAKING AN APPROPRIATION FOR THE WATER TRUST FUND; DECLARING AN EMERGENCY.

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

Section 1. APPROPRIATION.--One hundred million dollars ($100,000,000) is appropriated from the general fund to the water trust fund for expenditure in fiscal years 2005 and 2006 to finance the water trust fund for purposes of the Water Project Finance Act. Any unexpended or unencumbered balance remaining at the end of fiscal year 2006 shall not revert to the general fund.

Section 2. EMERGENCY.--It is necessary for the public peace, health and safety that this act take effect immediately.

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BILL

47TH LEGISLATURE - STATE OF NEW MEXICO - FIRST SESSION, 2005

INTRODUCED BY

DISCUSSION DRAFT

FOR THE WATER AND NATURAL RESOURCES COMMITTEE

AN ACT

RELATING TO WATER; CREATING THE INDIAN WATER RIGHTS SETTLEMENT FUND; PROVIDING FOR LEGISLATIVE APPROVAL OF CERTAIN INDIAN WATER RIGHTS SETTLEMENTS; MAKING AN APPROPRIATION.

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

Section 1. INDIAN WATER RIGHTS SETTLEMENTS--APPROVAL OF SETTLEMENTS--REPORTS.--

A. Upon congressional funding of the federal government's portion of the costs of an Indian water rights settlement, the state engineer shall notify the legislature of the amount of the state's portion of the costs necessary to implement the settlement. Upon approval of a settlement by joint resolution of the legislature, the interstate stream commission may expend money in the Indian water rights settlement fund to implement the terms of the approved

settlement.

B. On or before November 15 of each year, the state engineer and the interstate stream commission shall report to the appropriate legislative interim committee dealing with Indian affairs and to the legislative finance committee on:

(1) the status of proposed Indian water rights settlements requiring state financing;

(2) the distribution of funds from the Indian water rights settlement fund to implement approved settlements; and

(3) recommendations on the level of funding for the Indian water rights settlement fund necessary to timely implement Indian water rights settlements.

C. As used in this section:

(1) "Indian water rights settlement" means an agreement between the state and a tribe, but not exclusive of any other party as appropriate, that resolves all of the tribe's water rights claims and that has been approved by the United States congress; and

(2) "tribe" means a federally recognized Indian nation, tribe or pueblo.

Section 2. INDIAN WATER RIGHTS SETTLEMENT FUND.--The "Indian water rights settlement fund" is created in the state treasury to facilitate the implementation of the state's portion of Indian water rights settlements. The fund consists

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of appropriations, gifts, grants, donations, income 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. Money in the Indian water rights settlement fund shall be used to pay the state's portion of the costs necessary to implement Indian water rights settlements that have been approved by the legislature and the United States congress. The interstate stream commission shall administer the fund and money in the fund is appropriated to the commission to carry out the purposes of the fund. Money in the fund shall be disbursed on warrants of the secretary of finance and administration pursuant to vouchers signed by an authorized representative of the interstate stream commission.

Section 3. EFFECTIVE DATE.--The effective date of the provisions of this act is July 1, 2005.

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HOUSE BILL

47TH LEGISLATURE - STATE OF NEW MEXICO - FIRST SESSION, 2005

INTRODUCED BY

DISCUSSION DRAFT

AN ACT

MAKING AN APPROPRIATION FOR THE WATER TRUST FUND; DECLARING AN EMERGENCY.

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

Section 1. APPROPRIATION.--One hundred million dollars ($100,000,000) is appropriated from the general fund to the water trust fund for expenditure in fiscal years 2005 and 2006 to finance the water trust fund for purposes of the Water Project Finance Act. Any unexpended or unencumbered balance remaining at the end of fiscal year 2006 shall not revert to the general fund.

Section 2. EMERGENCY.--It is necessary for the public peace, health and safety that this act take effect immediately.

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