

March 1998

WRRRI Report No. 304

Proceedings
42nd Annual New Mexico Water Conference



Water Issues of Eastern NM

*Get Your Water Kicks
on Route 66*

October 2-3, 1997
Tucumcari Convention Center

Ute Dam/Lake photo by Duane McDaniel

New Mexico Water Resources Research Institute, MSC 3167
New Mexico State University
P.O. Box 30001
Las Cruces NM 88003-8001

co-sponsored by
American Water Resources Association, New Mexico Section

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PROCEEDINGS

42nd ANNUAL NEW MEXICO WATER CONFERENCE

Water Issues of Eastern New Mexico

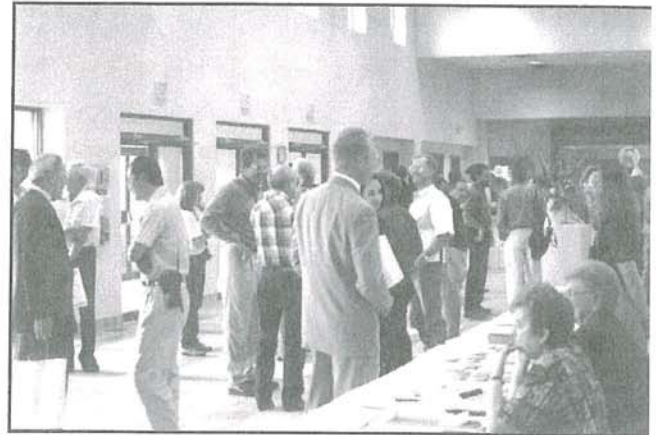
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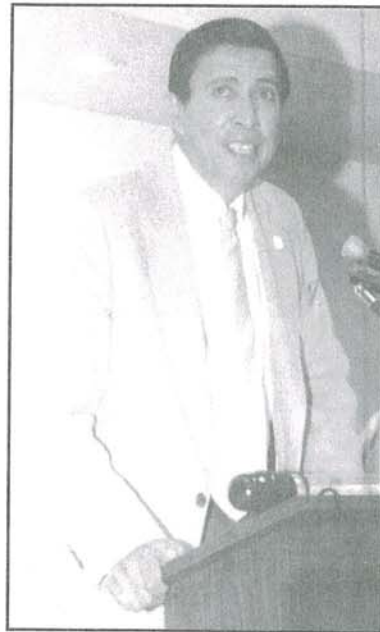
Tom Bahr, Director
Bobby Creel, Assistant Director
Catherine T. Ortega Klett, Conference Coordinator, Proceedings Editor
Cynthia Griswold Rex, Conference/Proceedings Editorial Assistant
Darlene Reeves, Projects Coordinator
John F. Kennedy, GIS Coordinator/Conference Photographer
Ellie Maese Duran, Administrative Secretary

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Top row (left): The Tucumcari Convention Center was the site of this year's annual water conference. Nearly 150 participants attended the conference; (right) Tour participants enjoyed a late afternoon snack and the tranquility of Conchas Lake at the Southside Conchas Lodge.

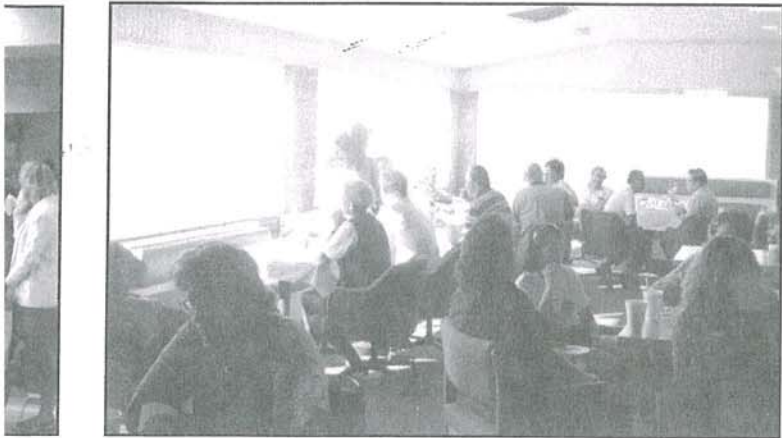


Middle row (left): Bureau of Reclamation Commissioner Eluid Martinez gave the keynote address; (center) Phil Mutz described the development of Ute Reservoir; (right) John Utton (at podium) moderated a session focusing on local water issues, panelists included (from left) Larry Wallin (Logan), Glenn Briscoe (Quay County), Ron Harris (Tucumcari), Nathan Tharp (Texico) and Don Davis (Portales).

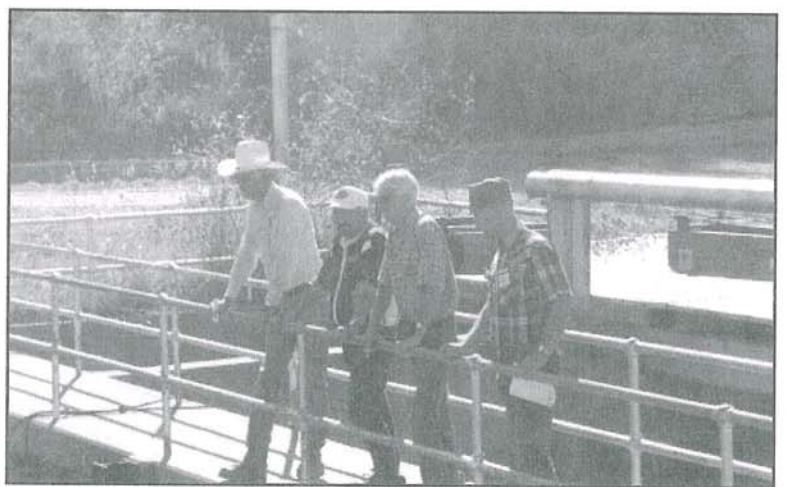


Bottom row (left): AWRA President John Copland (at podium) introduced speakers who responded to the Call for Papers, (from left) Andrew Lieuwen (NM State Engineer Office), Eddie Livingston (Livingston Associates), Jay Lazarus (Glorieta Geoscience, Inc.), and Mustafa Chudnoff (NM State Engineer Office); (right) Conference participants enjoyed a hearty dinner at the NMSU Agricultural Science Center at Tucumcari.





John Hernandez (left) makes a point during his talk on the history of water development on the Eastern Plains.



Above (from left): Gary Daves, Tom Bahr, Bob Creel and Erik Nelson look over the irrigation works at Conchas Dam; (right) Scotty Savage, Natural Resources Conservation Service, described new agricultural water conservation techniques.



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42ND ANNUAL NEW MEXICO WATER CONFERENCE

WATER ISSUES OF EASTERN NEW MEXICO

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October 2-3, 1997
Tucumcari Convention Center
Tucumcari, New Mexico

PROGRAM

Thursday Morning, October 2

- 8:15 Opening Remarks
Tom Bahr, New Mexico Water Resources Research Institute
Welcome to Tucumcari
Mayor Pro Tem Ron Harris, City of Tucumcari
- 8:45 Keynote Address
Commissioner Eluid Martinez, U.S. Bureau of Reclamation
- 9:15 An Engineer Reflects on the Water History of the Eastern Plains
John W. Hernández, New Mexico State University
- 9:45 Reservoir Storage Development in the Canadian River Basin and Related Litigation
Philip B. Mutz, New Mexico Interstate Stream Commission
- 10:15 Break

Overview of Eastern New Mexico

Moderator: John W. Hernández, New Mexico State University

- 10:45 An Overview of the Geology of Northeastern New Mexico
Adrian P. Hunt, Mesa Technical College
- 11:00 The High Plains (Ogallala) Aquifer: Managing the Resource in the Southern High Plains, New Mexico
Dennis Woodward, U.S. Geological Survey
- 11:20 Overview of the Hydrology of Northeastern New Mexico
Charles R. Wilson, Water Resources and Environmental Consultant
- 11:45 Persistence: Brief Development History of the Tucumcari Irrigation Project (Arch Hurley Conservancy District)
Jim Geyler, Arch Hurley Conservancy District

Luncheon and Speaker

Update on New Mexico Water Issues and What Is Happening in the New Mexico State Engineer Office
Thomas C. Turney, New Mexico State Engineer

Thursday Afternoon, October 2

Current Water Research Projects

Moderator: John Copland, AWRA/Science Applications Technology Corporation

- 1:30 Geohydrologic Characteristics of the Taylor Well Field, City of Las Vegas, New Mexico
Jay Lazarus, Glorieta Geoscience, Inc.
- 1:50 Aquifer Storage and Recovery Study for the City of Alamogordo, New Mexico
Eddie Livingston, Livingston Associates, P.C.
- 2:10 Groundwater Relationships along the New Mexico-Texas Stateline in the High Plains
Mustafa Chudnoff, New Mexico State Engineer Office
- 2:30 Water Rights Considerations Regarding Conjunctive Use of Surface Water and Groundwater in New Mexico
Andrew L. Lieuwen, New Mexico State Engineer Office
- 2:50 Break
- 3:20 A Technology for In Situ Denitrification of Groundwater
H. Eric Nuttall, University of New Mexico
- 4:00 Cobble Mulch: An Anasazi Water-Conservation Gardening Technique
Carleton S. White, University of New Mexico
- 4:20 Some Facts about Cloud Seeding from Recent Research on Rain Enhancement in Texas
George W. Bomar, Texas Natural Resource Conservation Commission

Friday Morning, October 3

Water Planning and Management Issues

*Moderators: John Utton, Sheehan, Sheehan and Stelzner, P.A.
Gary Esslinger, Elephant Butte Irrigation District*

- 8:00 Lake Meredith Salinity Control Project
Lee Wilson, Lee Wilson and Associates
Leon E. Esparza, U.S. Bureau of Reclamation
- 8:30 Watershed Management Issues
Debbie Hughes, New Mexico Association of Soil & Water Conservation Districts
- 8:50 Growth, Development and Water: Panel of Policy Makers
Ron Harris, Mayor Pro Tem of Tucumcari
Nathan L. Tharp, Mayor of Texico
Donald Davis, Mayor of Portales
Larry Wallin, Village of Logan Administrator
Glenn Briscoe, Quay County Commissioner
- 9:40 Break
- 10:00 Regional Water Planning
J. Phelps White III, New Mexico Interstate Stream Commissioner
Tracy Seidman Hephner, New Mexico Interstate Stream Commissioner
Mary Helen Follingstad, New Mexico Interstate Stream Commission
Lee Tillman, Eastern Plains Council of Governments
- 11:00 Agricultural Water Conservation Panel
Woods Houghton, New Mexico State University
Scotty Savage, USDA Natural Resources Conservation Service
Robert Faubion, Mesilla Valley farmer
Palemon Martinez, Taos Valley Acequia Association and New Mexico Interstate Stream Commissioner