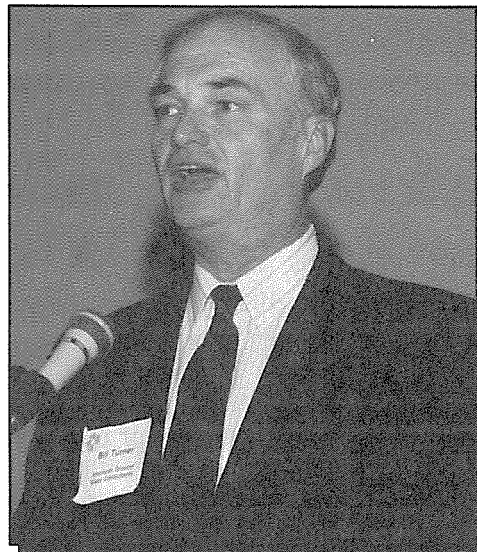


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## CHANGING FACE OF WATER RESOURCES ASSESSMENT AND MANAGEMENT

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We live in a semiarid state and our history of water use has been long and not always peaceful. Until relatively recently, our public officials concerned themselves only with regulating the use of water under the presumption that there was abundant water in relation to the demand. Despite the foresight of many of us here today regarding the quantification of our water resources as simply sound public policy, this activity has been mostly ignored for too long. Fortunately, the Albuquerque experience has changed that.

While our panel is to address water in the Albuquerque area, the issues that Albuquerque faces are now or will be faced by every community in New Mexico. Even tiny Willard, New Mexico has exceeded its original water rights.

We can talk about long-term strategies that those of us in this field can develop to enhance our water supply such as:

- conservation
- extending well fields to nearby or even distant areas
- recharging the effluent from the sewage treatment plant
- recharging San Juan/Chama water into our aquifer
- directly using San Juan/Chama water
- complete recycling of wastewater to drinking water
- leasing, buy-out, or condemning agricultural water rights

- changing priority dates on supplemental wells followed by a priority call to void water rights and water use

All these strategies currently are being carried out in New Mexico or elsewhere. Most of these ideas are under discussion and many, in my view, are not politically acceptable today but may become practically necessary. And, while we hem and haw over jurisdictional boundaries and which programs to implement, Humpty Dumpty is inexorably slipping off the wall. It is, therefore, necessary that we begin immediately to expand on the model that the City of Albuquerque has set for the rest of the state. However, we cannot contemplate any of these strategies without a complete understanding of the quantity of water available and without considering water quality and social impacts.

Many agencies and private entities are involved in water in some way in New Mexico. To achieve the greatest benefit for the dollars spent, we must define long-term roles for New Mexico's water institutions and their interrelationships. In my view, the patchwork of water-related institutions in our state must be modernized and streamlined. In a period when federal dollars are declining, New Mexico must shoulder more responsibility in this area and expand the role of our state institutions.

As we move into the 21st century, we must all recognize the need to

- quantify potential existing water rights claims throughout the state both adjudicated and unadjudicated
- quantify water resources throughout the state through basic water resources investigations
- arrive at institutional frameworks and regulatory mechanisms that are adaptable to changing views of water resources and the geologic framework in which water occurs
- develop and implement policies that insist upon the most efficient use of water so that we can realize the greatest economic benefit for our people
- develop and implement basinwide comprehensive management policies that provide for the conjunctive management of surface

and groundwater both as to quantity and quality

- separate regulatory and stewardship responsibilities from the quantification of the resources
- develop intrastate and interstate water quality compacts

Most of the issues I have outlined are highly charged political issues. The Albuquerque experience and the recently begun Water Planning Dialogue in New Mexico are beginning to create a process and implement dialogue to address these issues. Resolving these issues will involve technical, social, and political input. We must create a flexible process for resolving these issues and other issues not yet contemplated. We should examine institutional models both at home and abroad to guide us in developing the most effective way to deal with water quality and quantity issues in our complex society and we must be cautious in implementing new methods. We must be careful to respect traditional uses and jurisdictions of our sovereign Indian neighbors. We must be careful in dealing with federal water rights issues. I support the belief that we must seek to negotiate water use and water quality issues as good neighbors rather than adversaries in the courtroom.

Regarding basic geological framework, water resources quantification, and water quality investigations, I feel I am on more solid ground. I support the proposal that the New Mexico Bureau of Mines and Mineral Resources' role must be greatly expanded as the premier New Mexico institution to conduct basic earth and water resources investigations free from political control. I support the proposal for renaming the Bureau to the New Mexico Bureau of Earth and Water Resources. I also support the immediate funding of the Bureau and other state agencies with up to \$50 million for an initial five years of activity during which additional geologic and hydrologic information will be collected to further quantify the groundwater resources in the Rio Grande valley from Cochiti to Las Cruces. I support the use of some of these funds to begin quantifying our water resources elsewhere where the demand for water may not presently be great. I support the

## Changing Face of Water Resources Assessment and Management

proposed creation of an on-going program of water resources investigations that will continuously quantify and monitor our water resources. I support proposed programs that will support students financially in our institutions of higher learning who choose to join in this endeavor.

I support proposals to make the Earth Data Analysis Center (EDAC) at the University of New Mexico the premier agency for data storage and processing including water well files, water chemistry, oil and gas well information, hydrologic, meteorologic, geologic, soils, and other types of information. I support proposals to make data from EDAC easily available to the general public and businesses. We have not yet dreamed of all the uses for that data. Who knows what water resources related information is available in New Mexico in the form of thousands of consultants' reports, theses and dissertations, chemical analyses, and on and on? Without adequate cataloging and a centralized source of data, we cannot move forward. I will support proposals to unify the state's Geographic Information System resources so that EDAC can act as a repository for this data and make it available to the public.

The years ahead will be enormously challenging and exciting ones as we arrive at institutional frameworks and sound policies that quantify, conserve, and extend our water resources and that protect its quality for present and future uses for the benefit of our children and unborn generations and the overall quality of life that we, as New Mexicans, enjoy.