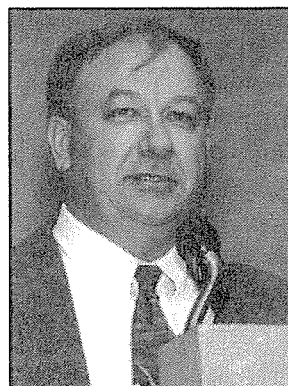


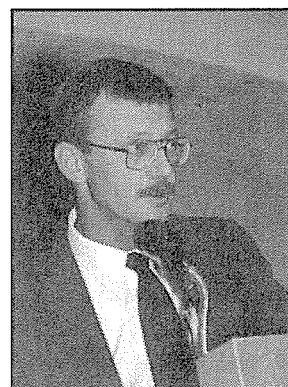
Ken Needham has been with the City of Las Cruces since 1975. Since 1980, Ken has been the Director of Utilities and responsible for the departments of Utilities and Engineering, Gas, Solid Waste, Technical Services, and Water Resources as well as the Rio Grande Natural Gas Association. Ken is a registered professional engineer in New Mexico, earned a B.S. in civil engineering and an M.S. in civil engineering with sanitary engineering option, both from NMSU.



Brent Westmoreland has been Doña Ana County Manager since July 1994 and in private business prior to that. He served as a New Mexico State Representative for two terms, from 1981 through 1984. Brent has been very concerned with water issues including its management and development. He is interested in developing areas of the county that have the potential infrastructure in place to accommodate new industries, particularly in the Anthony and Santa Teresa border area, and near the Doña Ana County airport.



Owen Lockwood has been with New Mexico State University for 24 years. In 1990, he became Assistant Director of Operations and Utilities in the Physical Plant Department. In that capacity, he supervises the craft shop and utility systems including steam, chilled water, domestic water, and geothermal water. Owen received a B.S. in mechanical engineering technology from NMSU in 1975. He received NMSU's 1994 annual Roberts Award presented to a professional staff member for dedication, outstanding service and contributions to university life.



LOCAL WATER PLANNING ISSUES

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I had the opportunity a couple of days ago to talk to a legislative committee. When I read a report about it in the newspaper, I was complimented for being succinct. I guess that means if you do not talk too much, they appreciate what you have to say. It reminded me of something a preacher told me years ago. He said that a preacher needs to stand up to be seen, speak up to be heard, and shut up to be appreciated. Maybe we should try that today.

I am going to talk about local water planning issues as they relate to the City of Las Cruces. These three topics include: the water rights problem that Las Cruces is facing; a few comments about water conservation; and some issues that the regional water planning commission has raised for Las Cruces. We will talk about those some more in the future.

The first issue concerning the water rights problem the City of Las Cruces is facing was mentioned this morning by the governor and by some of the questions that were presented to the governor. Las Cruces is in a very serious situation now with respect to water rights. In 1980 when the basin was declared, Las Cruces determined that it had approximately 22,000 acre-feet of water rights that it could declare. The City of Las Cruces projects that we will run out of those 22,000 acre-feet of water rights by about 1999, just three short years from now. We did our homework and our planning, and we applied for 22 wells in areas that we determined had a good water supply on the east and west mesas of Las Cruces. The 22 wells would give us an additional 22,000 acre-feet of water rights that would allow Las Cruces to continue to grow through 2020 or 2030, somewhere in that range. Those applications were sent to the state engineer fifteen years ago and the state engineer still has not acted on them. Thus, we have quite a problem. We are proceeding with our infrastructure planning under the assumption that those well permits will be approved. We have started designing the infrastructure of those wells and associated pipe and reservoirs under the same assumption. As you can

see, the city has a problem—although I am not allowed to use the word “crisis”—it has become a great concern for the City of Las Cruces.

The governor this morning said he recognizes that there is a problem getting the tremendous backlog of applications through the State Engineer Office. I understand there are some 17,000 applications that are backlogged now and Las Cruces has only 22 of those. It is a problem and we certainly wish the governor, State Engineer Turney and the State Engineer Office staff good luck on moving those applications. Las Cruces needs to be right up there close to the top of the application heap.

The second issue is water conservation. For years the City of Las Cruces has been conserving water and has had a water conservation plan. Our water conservation plan currently centers around prohibiting water waste. We have what is called “water conservation pricing” in place where the first few gallons that are used do not cost very much, but the more gallons you use per month, the greater the cost per gallon. Looking toward the future, Las Cruces is developing additional water conservation measures. Alternate day watering is being discussed. Water audits of large users to encourage them to reduce their usage also is under consideration. Policy makers are faced with some very tough questions about how far we want to go with water conservation. Do we want to start drying green lawns? Do we want to actually discourage high water-use industries from moving to Las Cruces? These are issues facing the city council.

The third issue was raised by our recent involvement in regional water planning efforts. As I had indicated before, Las Cruces’ water planning has focused on its groundwater supply. Twenty years ago our water planning concerned groundwater wells. A year ago Las Cruces hired a national engineering firm to conduct water planning for the city. They reaffirmed for us that we should stay with our plan to use groundwater wells. Gary Esslinger this morning talked about the benefits of surface water. I compliment El Paso on moving toward surface water and suggest that the rest of us need to be looking at surface water as an alternative. This issue has been raised and Elephant Butte Irrigation District has agreed to present Las Cruces with a proposal on using surface water. Las Cruces has agreed to look at

the proposal and perhaps integrate it into future water planning.

I hope I was succinct. Thank you.

BRENT WESTMORELAND

Doña Ana County

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Good morning. I would like to welcome all of you out-of-towners to Las Cruces and Doña Ana County, and encourage you to leave as many of your dollars here as you can and to enjoy some of our local historical areas and restaurants.

Doña Ana County has been actively involved in regional water issues since the El Paso lawsuit was filed against the New Mexico State Engineer over water appropriations in Doña Ana County. The threat of New Mexico water being taken from future local uses and development propelled the county to commit time, personnel, and funding to the regional water planning process. Doña Ana County's Board of Commissioners has agreed with the purpose of regional water planning and maintaining safe drinking water for the county's future.

Since 1970, Doña Ana County has been a participant in the New Mexico Public Entities Committee. This group was formed to provide the technical information needed during the lawsuit with El Paso over water appropriations in southern Doña Ana County. Doña Ana County, New Mexico State University, Elephant Butte Irrigation District and the City of Las Cruces are members of this group. We have met throughout the last five years to discuss regional water planning issues. Public Entities Committee members from the county have worked cooperatively to develop a forty-year water plan that describes regional hydrogeology factors that affect water quantity and quality throughout our region. A condition of the lawsuit settlement between Texas and New Mexico is for the states to work cooperatively in seeking solutions for regional water issues. The settlement created the New Mexico-Texas Water Commission. The City of El Paso Public Service Board, the University of Texas at El Paso, and the El Paso Water Improvement District #1 are members of the Texas contingent. The

New Mexico Public Entities Committee comprises the New Mexico delegation.

The New Mexico-Texas Water Commission will be testing and compiling water quality data and testing winter operations procedures that may channel El Paso Water Improvement District #1 water to El Paso's Public Service Board's surface water treatment facilities. Conjunctive water use is a goal of all participants. A surface water treatment facility located in New Mexico is one of the options being considered. Questions of design, surface area, funding, and who would operate the facility are yet to be answered. Additionally, the feasibility of groundwater recharge/surface water conveyance and the elimination of marginal land contributing to total salt loading of irrigation return flows also are being considered. Doña Ana County's participation with the planning efforts of these two groups of water professionals has given county officials a better understanding on which to base their decisions concerning county development issues.

Federal funds currently are being used to study nine communities throughout the Doña Ana County area for wastewater treatment facilities. Plans soon will be evaluated and two or three communities located in Doña Ana County will be chosen to house wastewater treatment facilities. Also, Doña Ana County is looking at acquiring the wastewater treatment facility at Santa Teresa. We have a great interest in the border region along with the development of Doña Ana County's airport and industrial park.

The county's interest in water equals its interest in the wastewater area. We are considering developing a new water system for Doña Ana County. The county is not in the utility business yet, but soon will be.

The county is interested in continuing to be active participants in water planning and we look forward to the opportunity to work with the Elephant Butte Irrigation District and all others involved in planning for our future water needs.

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“We must assure that the university has water in sufficient quantities and of sufficient quality to provide for our anticipated growth and expansion to meet the university’s needs.”

NMSU President James Halligan
6 March 1987

Throughout its entire history, New Mexico State University has stressed a constant need to continue to develop its water re-sources. NMSU came into existence in 1889 and its first well was constructed the next year. Agriculture needs drove the university away from depending on intermittent river flows as a source of water supply. Factors such as increasing enrollments, increasing needs for agricultural research and development, and drought years pressured the campus administration to continue to develop its water supplies. Because the City of Las Cruces was three miles away, in the early years NMSU supplied water for residential develop-ment alongside the campus.

The NMSU planning process for developing a sustainable water supply required that historical information be compiled. The process culminated in a 1988 WRRI-published report entitled *A History of New Mexico State University’s Well Development and Ground Water Use* written by Calvin Lashway. The planning effort, in addition to a compilation of historical data, focused on four primary aspects: inventory, demand forecasts, supply options, and conservation measures.

Inventory efforts were directed toward NMSU’s land holdings. The university owns in excess of 60,000 acres in the Lower Rio Grande basin. The inventory included quantifying water usage in various areas, identifying surface irrigated tracts and determining priority dates for the appropriation of water associated with the land.

Predicting water demand was by far the most demanding effort undertaken. In addition to developing population forecasts, NMSU had to predict future growth of educational programs, the local commu-

ity, and probably the most difficult to predict, the future growth of university research. Although forecasting demand trends is subject to factors beyond anyone’s guess, predictions had to be made and are the essence of the final report.

Water supply options for NMSU primarily are appurtenant to considerations of the area’s geothermal, surface, and groundwater resources. Information was collected on infrastructure development and usage, and the physical aspects of water system layouts. This information was reviewed in light of the wide diversity of needs. Funding options were also contemplated during discussions of water supply options. The supply options assessment was used to establish the university’s potential pre-basin water rights.

Potential university water conservation programs were reviewed taking into account ongoing campus operations—primarily directed at grounds irrigation—and potential needs of future educational and research efforts, such as programs through the Plant Genetics Engineering Laboratory, Southwest Technology Development Institute, and Arrowhead Research Park.

NMSU planning efforts yielded a number of issues needing attention including ongoing programs such as groundwater modeling, dual systems utilization, wellhead protection, conservation efforts, well rehabilitation, and participation in the New Mexico-Texas Water Commission.

Economics is a key factor driving NMSU’s ability to develop its water resources. Funding sources such as state government, student fees, and others, cannot by themselves support continuing programs. Innovative economic development options must be found and incorporated into current support to compensate for funding deficits. The university is working toward implementing such options in several areas.

While NMSU planning efforts have included a 40-year water plan and a number of ongoing initiatives, it is clear that planning for water resources must be a continuous effort. The university also has found that cooperation among water basin users is essential in the wise development of this resource.