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Ground Water: The Management Issue

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Ground water has played a major role in the growth and development of Texas, especially in the past three decades. Most of our present water comes from ground water sources. Projecting data on present rate of use indicates the state will in the near future be facing two serious ground water-related problems: depletion and land subsidence. Greater attention will have to be given to improve management of these important resources.

These emerging problems, concerns of water experts for a number of years, recently came to the public's attention through the news media. This public awareness and concern prompted the selection of "Ground Water Management--Current Issues" as the theme for the 1974 Water for Texas Conference.

A group of outstanding experts was asked to examine this theme from many different viewpoints. Informed opinions of these water resource professionals are invaluable in any consideration of a ground water management program for Texas. It is hoped our focus on these issues will result in assisting the State in adopting a ground water program offering benefits to all.

Highlights of the Conference are feature in this--the first--and will appear in future issues of TEXAS WATER RESOURCES. This newsletter was initiated to satisfy a growing need for broader dissemination of water resources information. Intended to provide a better base on which to make decisions about water resources, the newsletter is directed to the general public, local business and community leaders, and major water users in industry, municipalities, irrigation and recreation. The TEXAS WATER RESOURCES newsletter is designed to communicate the varied aspects of water resources to these readers.
--J.R. Runkles

Ground Water: The Management Issue

The issue of *who* will manage ground water became the overriding theme of the September Water for Texas Conference at Texas A&M University, attended by representatives of federal and state agencies, water districts, agricultural and industrial interests, municipalities, press and communication, special interest groups, and private enterprise.

Although the "Ground Water Management--Current Issues" conference spanned the broad field of ground water-related topics, the focus was on the question of whether management should be by federal, state, local or no control, the four approaches given by Bill Waddle, general manager of the Texas Water Conservation Association, in his speech on "Approaches to Ground Water Management."

If the consensus of speakers is a clue to the answer, then management of ground water in Texas will be on the local level.

Approximately 243 participants to the Texas Water Resources Institute-sponsored meeting heard the first endorsement of local control in the keynote speech o Lt. Gov. Bill Hobby.

"I think the main thrust of such a program should be retention of control and jurisdiction by local units of authority," Hobby stated.

He briefly discussed a draft revision of Chapter 52 of the Texas Water Code, which he pointed out is intended to encourage local solution to local problems.

Both Hobby and Rep. Bill Clayton, who spoke on "Legislative Perspective on Ground Water Issues"urged to conference participants to study the draft proposal and to make known their reactions in Austin.

Clayton, chairman of the house Interim Committee on Water, said he was confident the final draft would "reflect your wishes and desires if you provide the necessary input. If not, you can't complain."

The draft calls for the Texas Water Rights Commission to declare appropriate areas of the state to be critical areas. The Texas Water Development Board would define the limits of the state's aquifers, Hobby explained.

"Within 12 months of having been declared a critical area, the residents of such an area must, by vote, create an underground water conservation district," he continued. "Rules must be promulgated, and the district must actively carry out such rules. If no such district is created within 12 months, the Texas Water Rights Commission may carry out the responsibilities of an underground water conservation district until the people act. The purpose of the district is to make and enforce rules to conserve ground water. Since the district is created by a vote of the people, its actions will be at their discretion."

Unity Encouraged

Clayton, in his discussion of legislative perspectives, told the conferees that "now for the first time in recent history there is unity among various groups involved in the water issue," citing the Water Development Task Force set up by Gov. Dolph Briscoe, four regional water study councils developed by Hobby, and the three state agencies: Water Development Board, Water Rights Commission, and Water Quality Board.

Clayton said he knew of no other specific legislation to be introduced in the next session, but "we are, for example, looking into some of the problems of land subsidence and water district problems. I will not be surprised if there are several measures introduced next session, and probably some will be passed."

Clayton reminded the audience, "You are a vital ingredient to legislative process. Get involved. Now is the time for action--the climate for needed legislative action is probably better now than ever before in history."

Discussing the draft proposal, William F. Guyton, consulting engineer associated with Texas groundwater matters since 1939, fears a possible flaw in the proposal--"not so much in the approach of the draft as in the present underground water district law on which it is primarily based. He said the draft would require the Water Rights Commission to regulate ground water in all areas of the state by the same correlative rights doctrine set up under the present underground water district law, and the Commission would have to follow the doctrine whether it is best for the particular area or not. This, he interprets to mean subjecting ground water supplies to rationing by either a local district or by the State. He predicted two serious problems to result: 1) It will not protect the existing user when rationing begins. It may wind up putting the user out of business in favor of some newcomer. 2) In those areas where rationing is undertaken, foreseen, or even remotely contemplated, it will result in the development of a massive system of buying and selling groundwater rights."

Frank R. Booth, former chief and legal examiner of the Texas Board of Water Engineers and one-time executive director of the Water Rights Commission, discussing Alternative Ground Water Laws for Texas, said he is concerned that the draft proposal fails to address itself to conjunctive use of surface and groundwater.

"I think the legislature and the people must make up their minds. Is it in the best interest to let those springs--Comal, San Marcos, Edwards, Balmorhea--dry up, bearing in mind that the groundwater production of these springs is also the surface water of those river basins? This to me is a situation that must be resolved. Trust legislation, but guide it and keep it from going astray."

The strong pro-local control feeling that prevailed at the meeting was matched by equally avid anti-federal control attitudes:

Anti-Federal

Gov. Dolph Briscoe: "Texas is thrust into a greater role in water resource development due to shifting federal policies. These trends point to reduction of federal government participation in the development of water . . .I believe we must continue in this state, local control of our ground water resources."

Lt. Gov. Hobby: "It has become apparent that big government does not work. we must resolve not to make this mistake with our water resources. We must not rely on a large bureaucratic mechanism in Austin or Washington to magically solve all our water problems. We must emphasize regional solutions carried out by regional authorities."

Rep. Clayton: "One of the greatest injustices ever perpetrated on those who depend on ground water is contained in the report of the National Water Commission stating that highest economic use receives that highest authority."

Don Owen, water engineer from Orange County, Calif.: "In California we have all kinds of control. The least successful are national and state. If groundwater management succeeds, it will be tailored exactly to that local area that is involved."

Frank Rayner, general manager of High Plains Underground Water district: "It is a nightmarish concept to envision a federal law that will appoint and empower an administrator capable of addressing all the nation's aquifer problems. Since most groundwater problems fall between black and white of the law, democratizing political decisions is essential to groundwater management--the system that is now employed by groundwater districts in Texas, giving raw power to local law and entrusting administration/interpretation of such law to rules promulgated by boards of directors.

Robert VanDyke, general manager San Antonio City Water Board: "Any groundwater law submitted to the Texas legislature should be tailored to fit Texas, should be locally administered and controlled . . ."

Bill Waddle: "If we don't assume the responsibility for management, the feds will come and do it for us . . . little or no consideration given to our desires . . . lack of understanding and knowledge or local problems . . . need rules tailored to local needs . . . one blanket law on aquifers too broad to do any good."

Basic reasoning for advocating local control is that each aquifer is unique in its uses and individual problems, and should be administered according to those individual needs. Speakers did, however, indicate a need for state stimulus in getting local control underway and in coordinating solutions to water shortages.

With legislative action on water management expected in January, the question of local management of Texas water will continue to be important. Although state-wide, regional or national management schemes were not explored at the conference, these management forms offer options to the local management plan.

Other Concerns: Subsidence, Depletion, Pollution

Issues of major concern to which the conference addressed itself included subsidence, depletion and pollution.

Subsidence was cited by Gov. Briscoe as a problem which "must be faced, met and cured." During the past 25 years, according to Mrs. Jean Williams from the Division of Planning Coordination Office of the Governor, subsidence within the city of Houston has occurred on the order of 2 to 4 feet and up to 6 feet in the Pasadena-Houston Ship Channel, Baytown, and Texas City.

Robert K. Gabrysch, U.S. Geological Survey, and Lonnie L. Jones, agricultural economics professor at A&M University, presented slide reports on studies made in the subsidence-affected areas. The thrust of each report was the need to recover artesian pressure to halt subsidence.

Depletion was looked at from two standpoints: the adverse effects on the economy and the remedial possibilities through recharge. Speakers were James E. Osborn, Texas Tech agricultural economist, and Jim Valliant, director of High Plains Research Foundation.

Deputy Director of Texas Water Quality Board, Dick Whittington, addressed the pollution problem with recommendations on regulations to protect ground water resources.

Other issues and speakers were the metropolitan water issue, Robert VanDyke, general manager of San Antonio City Water Board; and ground water management in irrigated areas, J.W. Buchanan, general manager of the North Plains Ground Water District.

Conferees also saw slides of groundwater models developed on the Carrizo sand aquifer and Edwards limestone aquifer, recommended by Lewis B. Seward, director of the Hydrology Division of the Texas Water Development Board, as "a marvelous way to start to contemplate the management of a ground water aquifer."

Jack K. Williams, president of A&M University, welcomed delegates. Presiding chairman were Joe D. Carter, chairman of the Texas Water Rights Commission, Harry P. Burleigh, executive director of Texas Water Development Board, and Col. MacDonald D. Weinert, Edwards Underground Water District.