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NOTE

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INTRODUCTION

Texas is threatened by a shortage of water now and in the near future. As population levels rise, industrial and municipal demands for water will increase. Over the whole of Texas, the continued long-term development and use of groundwater is limited by the fact that more groundwater is being removed than is being replaced by natural recharge.¹ Nonetheless, groundwater will continue to be a very important source of water in the future.² To combat problems of shortage and groundwater depletion, the Texas legislature made major changes in its water code in April 1985. The changes were enacted by Texas House Bill No. 2, (H.B. 2) regulating surface and underground water.³ The bill provides various financing mechanisms to fund conservation, development, protection, and quality enhancement for surface and groundwater.⁴ Further, the legislation provides for subsidence control, recharge, desalinization, and chloride control measures. The bill also includes provisions for agricultural soil and water conservation.⁵ Article 5 of this bill addresses groundwater specifically.

This casenote will analyze the portion of H.B. 2 dealing with the creation of groundwater critical areas, and predict the statute's impact on the ability of the Texas Legislature to meet its goals of conservation and protection of underground water.

BACKGROUND

Groundwater Law in Texas

Texas groundwater law differs from that of all the other western states in that it utilizes the English rule to govern underground water appropriation. The English rule focuses on the ownership of the overlying land. It is based on the maxim *cujus est solum, ejus est usque ad infero* or, "to whomever the soil belongs, he also owns to the sky and to the

1. I TEXAS DEPARTMENT OF WATER RESOURCES, PUB. NO. GP-4-1, WATER FOR TEXAS: A COMPREHENSIVE PLAN FOR THE FUTURE, 37 (1984) [hereinafter cited as TEXAS WATER PLAN]

2. *Id.*

3. TEXAS WATER CODE ANN. § 52.001 (Vernon 1986 supp. 21).

4. *Id.*

5. *Id.*

depths."⁶ The rule developed in the 1843 English case, *Acton v. Blunell*.⁷ The plaintiff landowner sought damages for the impairment of his ground-water supply caused by his neighbor's pumping of groundwater. The Court of Exchequer denied the plaintiff relief, and established the theory that a landowner owns the percolating water found beneath the land surface.⁸

The two other rules most often used by other western states are those of correlative rights and prior appropriation. The correlative rights concept provides that each owner of a surface tract overlying a common reservoir containing percolating water does not have an absolute right or title to all of the groundwater. Rather, his property rights are correlative so that each landowner is restricted to such use of the water as is reasonable with respect to his own use and that of the other landowners whose tracts overlie the common reservoir.⁹

The prior appropriation system of groundwater withdrawal is used in many western states.¹⁰ Withdrawals are controlled by regulatory administration of permits to withdraw groundwater.¹¹ The procedures for obtaining a permit to appropriate are not identical in all states where a permit is required. The water taken must be put to beneficial use, and when there is a water shortage, those with older rights have priority.¹²

Case law developed in Texas using the English rule. The rule is still in force today. Texas first applied the *Acton* rule in *Houston & T.C. Railway Co. v. East*.¹³ The owner of the land in *East* was allowed to pump unlimited quantities of water from under his land, regardless of the impact on the adjoining landowner's water supply.¹⁴

The *East* doctrine was reaffirmed by the Texas Supreme Court in *City of Corpus Christi v. City of Pleasanton*.¹⁵ The Texas Supreme Court allowed the City of Corpus Christi to transport artesian well water 118 miles down surface watercourses to its diversion point, even though a

6. Comment, *Water Law—Groundwater—Land Use and Rights in Groundwater*, *Alameda County Water District v. Niles Sand and Gravel Co.*, 10 LAND & WATER L. REV. 489, 491 (1975).

7. 12 M. & W. 324, 152 Eng. Rep. 1223 (Exch. 1843).

8. *Id.*

9. *Id.* Texas and California apply the doctrine of correlative rights. Clark, *Overview of Groundwater Law and Institutions in United States Border States*, 22 NAT. RES. J. 1007, 1011 (1982).

10. The following states adhere to the appropriations doctrine: Alaska, Colorado, Hawaii, Idaho, Kansas, Montana, Nevada, New Mexico, North Dakota, Oklahoma, Oregon, South Dakota, Utah, Washington, and Wyoming. *Texas Underground Water Law: The Need for Conservation and Protection of a Limited Resource*, 11 TEX. TECH L. REV. 637, 641 (1980).

11. See DuMars, *New Mexico Law: An Overview and Discussion of Current Issues*, 22 NAT. RES. J. 1045 (1982).

12. Comment, *Groundwater Management, A Proposal for Texas*, 51 TEX. L. REV. 289, 290 (1973).

13. 98 Tex. 146, 81 S.W. 279 (1904).

14. *Id.*

15. 154 Tex. 289, 276 S.W.2d 798 (1955).

great amount of the water was being lost in transit to evaporation, seepage, and transpiration.¹⁶ The court stated that percolating waters are regarded as the property of the owner of the surface who may, in the absence of malice, intercept, impede, and appropriate such waters while they are upon his premises, and make whatever use of them he pleases.¹⁷ The use is allowed regardless of the fact that the user cuts off the flow of such waters to adjoining land and deprives the adjoining owner of their use.¹⁸

The Texas Supreme Court further entrenched the English Rule in *Friendswood Development Co. v. Smith-Southwest Industries, Inc.*¹⁹ This action was brought as a suit for damages by landowners who alleged that subsidence of their land was caused by defendant's pumping of groundwater for industrial uses.²⁰ The court followed the long established common law rule that in the absence of willful waste or malicious injury a landowner has a right to withdraw groundwaters located on his own land without liability for resulting damage to his neighbor's land.²¹ The court refused to abandon the common law doctrine because it had become an established rule of property law in Texas although the court did recognize and apply the law of negligence along with willful waste and malicious injury as limitations on the holding that the landowner can withdraw all the water he wants.²²

Constitutional and Statutory Provisions

The Texas Constitution was amended in 1917 to include the Conservation Amendment.²³ This amendment was adopted to meet the state's need for a conservation program and planned water control system. The constitution before amendment contained financial barriers making it impossible for any unit of general government to attempt a solution to problems such as unrestrained use of septic tanks and open water wells

16. *Id.*

17. *Id.* at 802.

18. *Id.* The general rule in the United States is that subterranean waters are divided into two classes: percolating water and underground streams. Percolating water is defined as waters which ooze, seep or filter through the soil beneath the surface, without a defined channel, or in a course that is unknown and not discoverable from surface indications without excavation for that purpose. Castleberry, *A Proposal for Adoption of a Legal Doctrine of Ground-Stream Water Interrelationship in Texas*, 7 ST. MARY'S L. J. 503, 505 (1975). An underground stream is a constant stream of water flowing in a known and well defined channel. Texas considers groundwater to be percolating unless it is specifically designated otherwise. D. Caroom, *Water Law and Institutions* 1 (paper presented at Univ. of Texas Water Law Conference, Oct. 3 & 4, 1985). This distinction is important because it fails to recognize the interrelationship of ground and surface water which is necessary to plan for future water needs.

19. 576 S.W.2d 21 (Tex. 1978).

20. *Id.*

21. *Id.* at 22.

22. *Id.*

23. TEXAS CONST. XVI § 59.

dangerous to health.²⁴ The Conservation Amendment authorized the Texas Legislature to create conservation and reclamation districts which may incur debts to finance projects to further the conservation goals of the amendment.²⁵

Pursuant to this amendment, many different kinds of conservation and reclamation districts were created, including special districts.²⁶ These special districts operate on the local level outside the regular governmental structures. For example, a type of special district is the river authority. Each special district is authorized by special legislation which specifically defines the powers, duties and limitations of the special district.²⁷ Special districts were created in response to the failure of local and state government to provide needed public services or embark on large-scale improvement projects.²⁸ In addition, there was a desire to avoid excessively large government and its political entanglements.²⁹

The Texas Legislature imposes three requirements for the creation of an underground water conservation district (UWCD). First, a hydrological reservoir must be formally designated. Second, either the Texas Water Rights Commission (WRC) or the local county commissioners' court must decide that formation of a district is "feasible and practicable."³⁰ Third, local residents must approve the district by a majority vote.³¹ The designation of a reservoir does not reflect the WRC's judgment that the area has serious groundwater conservation problems. Areas with serious problems may escape regulation if there is no local support for a UWCD.³² The district cannot be effective unless local residents, acting through popularly elected directors, are willing to impose management controls on their own pumping activities. None of the existing UWCDs have overcome this barrier, and none have imposed production quotas, neither maximum or minimum.³³

Governmental Entities

A water district is one of several state political subdivisions designated as special districts. There are thirteen types of water districts which are all concerned with either controlling or providing water services.³⁴ In-

24. Comment, *The Water Control and Improvement District: Concept, Creation and Critique*, 8 HOUS. L. REV. 712, 715 (1971).

25. TEXAS CONSTITUTION ART. III § 59.

26. Comment, *supra* note 12, at 294.

27. *Id.* at 33.

28. Comment, *supra* note 24, at 713.

29. *Id.*

30. Comment, *Groundwater Management: A Proposal for Texas*, 51 TEX. L. REV. 289, 294 (1973).

31. *Id.*

32. *Id.* at 295.

33. *Id.* at 298.

34. *Id.*

cluded as water districts are: (1) Water Control and Improvement (WCID), (2) Fresh Water Supply (FWSD), (3) Conservation and Reclamation, (4) Drainage, (5) Navigation, (6) Water Improvement, (7) Levee and Flood Control and (8) River Authorities.³⁵

Water Control and Improvement Districts have extensive powers to regulate domestic and commercial water supply, sewage disposal, drainage, irrigation, reclamation, and conservation.³⁶ Given its powers, the WCID has become the main financing mechanism for development in urban areas. For this reason, the water districts are often termed "development districts."³⁷

The Texas Water Commission was created by a reorganization of the Board of Water Engineers which was established by the Irrigation Act of 1913.³⁸ Three commissioners are appointed by the governor for a six year term and must be knowledgeable in water supply, conservation, and quality issues.³⁹ The Commission has administrative authority within its subject matter area, and it sits as the adjudicatory body ruling on all contested cases. The subject matter jurisdiction of the Commission extends to water rights, water pollution, water quality, water rates, district formation and supervision, nonmunicipal solid waste disposal, and hazardous waste disposal.⁴⁰ The Commission has substantive and procedural rulemaking authority.⁴¹

The Texas Department of Water Resources (Department) is the state agency given primary responsibility for implementing the provisions of the constitution and laws of the state relating to the conservation and development of water.⁴² The Department was created in 1977 when the three water agencies existing at that time⁴³ were combined by the legislature. Within this new single agency a multitude of responsibilities were placed, including water resources planning, water quality protection, water rights administration, and water development loan administration.⁴⁴

35. *Id.* at 716.

36. Comment, *The Texas Groundwater District Act of 1949: Analysis and Criticism*, 30 TEX. L. REV. 864, 866 (1952). The powers and functions of a district include: (1) making and enforcing regulations for the conservation and recharging of underground water reservoirs; (2) making and enforcing rules against "waste" of underground water, as "waste" is defined in the act; (3) issuing permits for the drilling of wells within the reservoir; (4) imposing spacing rules and prorating withdrawals; (5) requiring reports on the drilling, equipping, and completion of wells; (6) acquiring lands for the purpose of carrying on recharging operations; (7) making surveys and plans and carrying on research relative to groundwater; and (8) enforcing by injunction or other appropriate process, the duly adopted regulations of the district.

37. Comment, *supra* note 24, at 713.

38. Caroom, *supra* note 18, at 29.

39. *Id.*

40. *Id.* at 30.

41. *Id.*

42. TEXAS WATER PLAN, *supra* note 1, at 1.

43. *Id.* at 5. The agencies existing at the time were the Water Development Board, Water Rights Commission, and Water Quality Board.

44. *Id.*

DESCRIPTION OF THE RECENTLY ENACTED LEGISLATION

Up to as much as 50% of municipal water in Texas is obtained from underground sources.⁴⁵ This dependence on groundwater is important because the Texas Legislature recognizes that certain areas of the state are experiencing and will continue to experience critical groundwater problems such as water shortages, land subsidence, underground water contamination including salt water intrusion, and waste of underground water.⁴⁶ In order to increase supply, the Texas Legislature adopted policy to promote conservation of water by creating critical areas. Rapid population growth and economic development, coupled with a climate in which water resources are scarce, have imposed real and potential water supply problems in many areas within the state.

In much of the state today, available storage capacity in existing surface water reservoirs is barely sufficient to meet water demands during critical droughts. Additional water supplies must be developed to meet growing needs.⁴⁷ Reliance on groundwater will no longer be possible given these problems. A critical area is designated and delineated by the Texas Department of Water Resources (Department) and the Texas Water Commission (Commission) as an area which is experiencing or is expected to experience critical groundwater problems.⁴⁸ The legislature established a procedure by which the Department can monitor and study on a continuing basis the underground water situation within the state, and work within critical areas to solve existing or potential problems. The legislature also wanted to ensure that the local areas contained within a groundwater basin determine the best methods for handling groundwater problems for themselves. This was accomplished through the creation of underground water conservation districts.⁴⁹ The districts are designated by the Commission and must be an area having the same boundaries as an underground reservoir which is defined as a specific subsurface water-bearing reservoir with ascertainable boundaries.⁵⁰

The Department will monitor and make available to all underground water conservation districts information that is acquired by the Department from its monitoring activities. The Department will identify areas of the state which are experiencing critical underground water problems including shortage of surface or underground water, land subsidence resulting from underground water withdrawal, or contamination of underground water supplies.⁵¹ Should the Department determine there is

45. *Id.* at 12.

46. TEXAS WATER CODE ANN. § 52.051 (Vernon 1986 supp. 29).

47. TEXAS WATER PLAN, *supra* note 1, at 465.

48. TEXAS WATER CODE ANN. § 52.001 (Vernon 1986 supp. 22).

49. TEXAS WATER CODE ANN. § 52.051 (Vernon 1986 supp. 29).

50. *Id.*

51. TEXAS WATER CODE ANN. § 52.053 (Vernon 1986 supp. 30).

a problem area, several steps are taken. First, the Department will create and appoint an advisory committee comprised of people familiar with the underground water problems of the underground water basin area, including representatives of those economic sectors which are significant water users in the area being studied.⁵² Second, the Department will prepare a report on underground water conservation and protection in the proposed critical area.⁵³ Third, if the report recommends the creation of an underground water conservation district, a hearing regarding the situation in the proposed critical area shall be held to provide information to the local officials and citizens. Testimony on the underground water situation in the area and the potential economic, political, geological, and hydrological impact of creating the specific district will be heard.⁵⁴ Testimony of local governmental officials and citizens will be heard as well.

Fourth, thirty days after the conclusion of the hearing, the Department will issue an order prescribing whether or not the area should be declared a critical area. If the Department recommends that the proposed area be declared a critical area, the Department will prepare and submit to the Commission a written report describing the boundaries of the critical area and the reasons for its creation.⁵⁵ Should the Department determine that a critical area not be created then it will issue an order stating that a district should not be created within the boundaries of the problem area.

Upon receipt of the Department's report in favor of creating a critical area, the Commission will call and hold a hearing to consider whether the creation of a district is feasible and necessary.⁵⁶ The Commission shall include with its notice of the hearing a brief summary of the Department's report. At the conclusion of the hearing, the Commission will issue an order stating its findings and conclusions.⁵⁷

After reviewing the Department's recommendation, if the Commission also determines that a critical area should be created, it will issue an order

52. *Id.*

53. *Id.* This report shall include an assessment of: (1) information on the underground water resources in the area; (2) the efficiency of existing institutions regulating underground water use; (3) the administrative feasibility and economic impact of restricting withdrawals of underground water; (4) potential methods of increasing aquifer recharge; (5) potential for additional underground water development; (6) the potential and need for conjunctive use of underground water and surface water; (7) alternative methods of financing the district. The report shall also include an evaluation of (1) control strategies for protecting underground water supplies on a regional basis; and (2) an evaluation of the significance of groundwater problems within the area. Finally, the report will include a recommendation as to whether an underground water conservation district would be a benefit to the area and if so what the boundaries of the district should be.

54. TEXAS WATER CODE ANN. § 52.053 (Vernon 1986 supp. 31).

55. *Id.*

56. *Id.* Administrative procedures including notice of hearing are set out with an extra requirement that notice be published at least one time before the tenth day preceding the date of the hearing.

57. *Id.*

proposing the creation and delineating the boundaries of the district.⁵⁸ In addition, the Commission will direct that an election be held within the boundaries of the proposed district to determine whether the district will be created.⁵⁹ All of the citizens residing within the boundary of the proposed district are eligible to vote, and if a majority of the votes cast at the election favor the creation of the district, the temporary board shall declare the district created and shall enter the results in its minutes. If the proposition to create a district is defeated, another election may not be called during the next twelve months.

ANALYSIS

It seems that a critical area offers little advantage over the already existing underground water conservation districts. Whether the critical area will be any more successful in solving the underground waste problems of Texas is unknown. Under the groundwater system before the implementation of H.B. 2, groundwater districts were set up to handle problems of appropriation and conservation. The districts as they still exist require that permits be obtained before landowners drill wells, may provide for the spacing of wells, and may regulate withdrawals from wells so as to minimize as far as practicable the drawdown of the water table or the reduction of artesian pressure. In addition, districts may formulate plans and carry out projects for recharging reservoirs.⁶⁰

One limitation of a conservation district in Texas is that it has no authority to determine priorities between users or to prorate underground water in the event of shortage. The English rule of groundwater law expressly recognizes that landowners own the water under their lands.⁶¹ Therefore, there is little incentive to curtail pumping of underground water since a landowner may remove groundwater regardless of the impact on adjacent landowners. In contrast, the critical area system as provided for by H.B. 2 specifically provides for tighter control and oversight of an underground water basin. The underground water conservation district allows the Department to study and monitor the situation in a basin on a continuing basis, unlike the existing UWCDs.⁶² There are however, more complex administrative procedures to go through in order to establish a critical area. Not only must the Commission approve the creation

58. TEXAS WATER CODE ANN. § 52.053 (Vernon 1986 supp. 31).

59. *Id.* The Commission will appoint five people to serve as temporary directors for the proposed district. Within 30 days after all temporary directors have been appointed and have qualified, the temporary directors shall meet and shall call an election to be held within the boundaries of the proposed district to approve the creation of the district.

60. R. Harnsberger, *Nebraska Groundwater Problems*, 42 NEB. L. REV. 721, 758 (1963).

61. Comment *supra* note 6.

62. See TEXAS WATER CODE ANN. § 52.021 (Vernon 1986 supp. 25).

of a critical area, but the Department must approve as well. Whether there will be animosity between the Commission and Department as they struggle for power and control over the process is an open question. It may be that the two work quite well together, but if they do not, the consequence will be no action to conserve and protect underground water.

The Texas Legislature has established a very complicated and cumbersome administrative process by enacting H.B. 2. Before this legislation was enacted, only one set of hearings was needed to establish an underground water conservation district. Now a critical area applicant must undergo two sets of hearings as well as gain public approval.⁶³ By requiring the participation of both the Department and the Commission in the creation of critical areas, it seems that there is duplication of effort. Before enactment of H.B. 2, the Commission served as the main adjudicatory body, had substantive and procedural rulemaking authority and oversaw the administrative functions of the Commission through the Commission's Director.⁶⁴

It is unclear how the critical area will be any more efficient or beneficial, because it will take tremendous amounts of time for the Department and Commission to make studies, write reports, and hold hearings. It is possible that it will take years to create a critical area because of the cumbersome requirements; in the meantime, the needs of the community go unfulfilled. The legislation will not allow an applicant to act quickly or efficiently to establish a critical area. Further, there are no emergency measures set up to circumvent the lengthy process should an extreme need arise suddenly in an area. It is doubtful that the process will serve the broad interests of conservation and reclamation because of the administrative and political barriers established by the administrative requirements of the bill.

Given the complexity of the process, it is doubtful Texas citizens will be willing to apply for and establish critical areas. There seems to be little motivation for the local people to impose regulations on their own use of groundwater because the resource is expensive and difficult to obtain. It is possible that a local landowner using water for domestic uses would be pitted against adjacent landowners who might be much larger and more powerful. Because the new process will take a long time and favors those who are able to utilize the political process through lobbying or other action, people who need protection but lack such political resources will face alone the immediate problems of subsidence or salinization.

The extent of public participation in the process is unique, but it may

63. See TEXAS WATER CODE ANN. §§ 52.053, 52.058 (Vernon 1986 supp. 30,33).

64. Caroom, *supra* note 18, at 30.

be that the legislation is completely ineffective because the statute allows veto by public vote. Should the Department or the Commission fail to convince the local people of the importance of the proposed critical area, the proposed area can be easily defeated in the election. If the measure to create a critical area is defeated, the statute prohibits another vote on the proposed area for one year.⁶⁵ The one year prohibition prevents the Department or Commission from moving quickly to establish a conservation program for areas suffering from immediate problems.

Public hearings serve many different functions, including education, cooptation, ritualization, and interaction.⁶⁶ In the case of H.B. 2, the hearings may serve mainly to educate the public about the local groundwater problems. Hearings may reach a very few interested people in the community such as landowners and farmers. However, these hearings are not suited to reach the people who can do the most to conserve water and prevent problems such as salinization and subsidence.

A unique feature of the new Texas law is that local governments are the primary water conservation agencies. While it is desirable to have local control over any problem that effects the citizens in a particular area, local entities may not have the governmental skill or administrative capability to meet statewide regulatory needs. In Texas, local governments are assumed to be the primary water conservation agencies. However, many small cities, small water supply corporations, and small irrigation districts may not have the financial capability to establish and promote a water conservation program. Further, it is unlikely that local district directors possess the technical skill and geological information which are undoubtedly essential to the proper management of a groundwater conservation program.⁶⁷ Thus, special assistance should be provided to such entities to enable statewide coordination of a comprehensive conservation plan.⁶⁸

The problem of planning and coordination reaches beyond the local government level to the State of Texas and southwest region as a whole. One possible solution is to establish a regional program designed to coordinate and plan for the water needs of all the western states together.⁶⁹

65. TEXAS WATER CODE ANN. § 52.058 (Vernon 1986 supp. 34).

66. T. Heberlein, *Some Observations on Alternative Mechanisms for Public Involvement: The Hearing, Public Opinion Poll, the Workshop, and the Quasi-Experiment*, 16 NAT. RES. J. 197, 200-201 (1976).

67. Comment, *supra* note 36, at 872.

68. *Id.*

69. Wilkinson, *Western Water Law in Transition*, 56 COLO. L. REV. 317, 328 (1985). A helpful model is the Northwest Power Planning Council (NWPPC), established by the Northwest Power Act of 1980. The NWPPC was established by Congress and is controlled by the United States Department of Energy. However, the NWPPC is not a federal agency. The NWPPC sets energy and fisheries policy in the Columbia River basin. Two representatives are appointed to the NWPPC from each of the Northwest states: Washington, Oregon, Idaho, and Montana.

The creation of a federal commission is not necessarily the ultimate solution to the water problems of the southwest region but the states must recognize future challenges to meet pressing needs. This alternative would allow local government input into a statewide agency especially if the agency were structured specifically to receive such input. The agency would provide the expertise in a coordinated framework while allowing local input.

CONCLUSION

Although the Texas Legislature made an admirable attempt to solve pressing underground water problems, the legislation will be ineffective because of cumbersome administrative requirements. The goals of conservation and protection of underground water must be addressed in a more effective manner, and must be timely. The future of underground water supplies for the southwest as a whole is at stake because Texas will look to neighboring states for water in times of shortage. The legislature must abandon the English rule and enact legislation to immediately set in motion plans to conserve the valuable and irreplaceable water resource.

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