INVESTIGATION OF ALTERNATIVE METHODS OF FINANCING UNDERGROUND WATER DISTRICTS

A Report to the Seventieth Legislature

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The Governor of Texas
The Lieutenant Governor of Texas
The Speaker of the House

Transmitted herewith is a report relating to alternative methods of financing underground water conservation districts in Texas which the Texas Department of Water Resources was directed to prepare pursuant to Section 5.03, House Bill 2, Sixty-ninth Legislature. Senate Bill 249, Sixty-ninth Legislature, charged the Texas Water Development Board with certain responsibilities related to ground-water investigations formerly carried out by the Department of Water Resources, and the Board has assumed the responsibility for preparation of this report.

The Board will be pleased to supplement the material presented herewith with additional details at the request of any interested reader.

Respectfully submitted,

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INVESTIGATION OF ALTERNATIVE METHODS OF FINANCING UNDERGROUND WATER DISTRICTS

Introduction

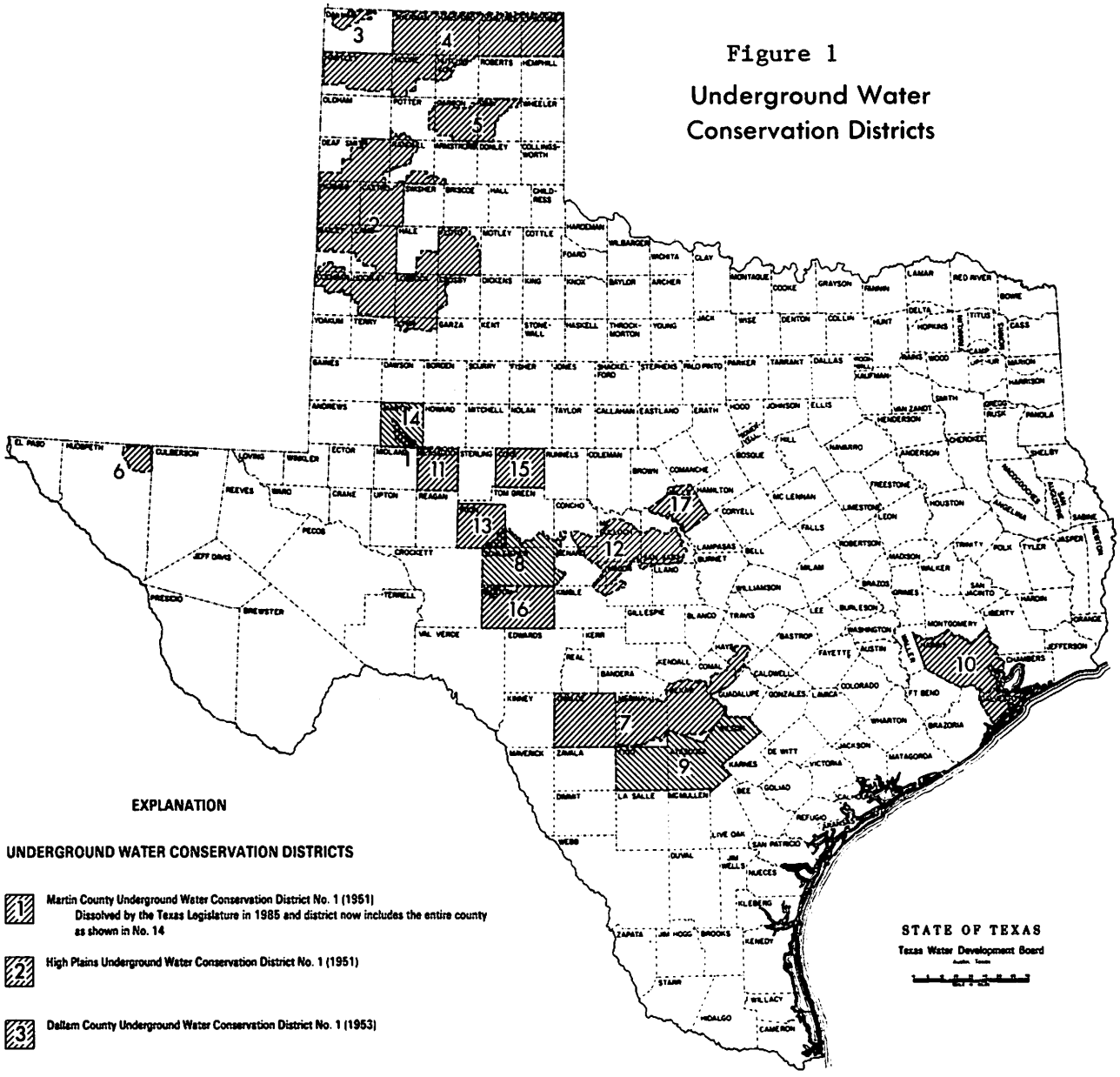
Section 5.03 of House Bill 2, the Sixty-ninth Texas Legislature, Regular Session, 1985, directs the Texas Department of Water Resources to submit to the Governor, the Lieutenant Governor, and the Speaker of the House of Representatives a study of alternative methods of financing for underground water conservation districts. Also, the feasibility of using fees and other charges are to be investigated. The Texas Water Development Board has assumed the responsibility for this report.

Currently, such districts are primarily financed by ad valorem taxes. One district receives funding through a pumpage fee. Proposed legislation has included measures such as well permit fees, pumpage fees, and well fees based on size of well. The purpose of this report is to investigate these and other funding mechanisms.

Current Financing Methods

Sixteen local entities are authorized to regulate underground water in Texas. Fourteen are underground water conservation districts which generally operate under Chapter 52 of the Texas Water Code. The Edwards Underground Water District and the Harris-Galveston Coastal Subsidence District operate under special acts; Chapter 99, 1959 Tex. Gen. Laws, 173; Chapters 69 and 306, 1979 Tex. Gen. Laws, 110 and 706; Chapter 1010, 1983 Tex. Gen. Laws, 5422; Chapter 284, 1975 Tex. Gen. Laws, 672; and Chapter 557, 1977 Tex. Gen. Laws, 1390. The locations of these districts are shown in Figure 1. Table 1 provides information on district revenues.

Figure 1
Underground Water Conservation Districts



EXPLANATION

UNDERGROUND WATER CONSERVATION DISTRICTS

1. Martin County Underground Water Conservation District No. 1 (1951)
   Dissolved by the Texas Legislature in 1985 and district now includes the entire county as shown in No. 14
2. High Plains Underground Water Conservation District No. 1 (1951)
3. Dallam County Underground Water Conservation District No. 1 (1953)
4. North Plains Ground Water Conservation District No. 2 (1954)
5. Panhandle Ground Water Conservation District No. 3 (1955)
6. Hudspeth County Underground Water Conservation District No. 1 (1957)
7. Edwards Underground Water District (1959)
8. Plateau Underground Water Conservation and Supply District (1965)
   Northwest portion of district also included in Irion County district as shown in No. 13. The southwest portion of the district also included in Sutton County district as shown in No. 16
9. Evergreen Underground Water Conservation District (1965)
   Frio County added to district in October 1985 after election following passage of SB-1253
10. Harris-Galveston Coastal Subsidence District (1975)
11. Glasscock County Underground Water Conservation District (1981)
12. Hickory Underground Water Conservation District No. 1 (1982)
13. Irion County Water Conservation District (1985)
    Southeast portion of district also included in Plateau district as shown in No. 8.
14. Martin County Underground Water Conservation District (1985)
15. Coke County Underground Water Conservation District (1986)
16. Sutton County Underground Water Conservation District (1986)
    Northwest portion of district also included in Plateau district as shown in No. 8. A small area in the northcentral part of the county was omitted from district
17. Fox Crossing Water District (1986)

1 14 Limits of underground water conservation districts (numbered in the order in which they were established)

(1959) Date of establishment of district

Table 1. Sources and Amounts of Revenues
for Underground Water Conservation Districts

District	Tax Rate Cents/$100	Tax Revenue	Pumpage Fee Revenue	Interest	Other Fees	Total Revenue
High Plains Underground Water Conservation District No. 1	0.7	$ 859,308	NA	$ 61,436	$22,491	$ 943,235
Dallam County Underground Water Conservation District No. 1	0.0	0	NA	3,115	0	3,115
North Plains Ground Water Conservation District No. 2	0.88	309,306	NA	50,849	9,131	369,286
Panhandle Ground Water Conservation District No. 3	0.412	72,970	NA	9,128	2,381	84,479
Hudspeth County Underground Water Conservation District No. 1	2.0	5,000	NA	2,000	0	7,000
Edwards Underground Water District	1.2	2,902,277	NA	610,988	29,450	3,542,715
Plateau Underground Water Conservation and Supply District	0.0	3	NA	777	0	780
Evergreen Underground Water Conservation District	0.5	78,180	NA	2,414	0	80,594 1/
Harris-Galveston Coastal Subsidence District	NA	NA	$938,435	163,025	52,240	1,153,700
Glasscock County Underground Water Conservation District	2.0	75,174	NA	6,077	800	82,051
Hickory Underground Water Conservation District No. 1	4.4	165,573	NA	12,426	1,858	179,857
Irion County Water Conservation District	3.0	110,265	NA	2,100	0	112,365 1/

(continued)

Table 1. Sources and Amounts of Revenues
for Underground Water Conservation Districts (continued)

District	Tax Rate Cents/$100	Tax Revenue	Pumpage Fee Revenue	Interest	Other Fees	Total Revenue
Martin County Underground Water Conservation District	0.0	0	NA	0	0	0
Coke County Underground Water Conservation District	1.0	2,107	NA	2,734	31	4,872
Sutton County Underground Water Conservation District	1.0	59,540	NA	0	0	59,540 2/
Fox Crossing Water District 3/						

1/ Estimate prior to audit.
2/ Based on assessed value and projected collections.
3/ No financial activities.
NA - Not Available
Values are for most recent year available, generally 1984 or 1985.

Taxes

The most common method of financing district operations is through ad valorem taxes on all taxable property within the district. The maximum tax rate for operations and maintenance expenses is 50 cents per $100 of assessed valuation. Financing district operations through taxes allows all persons and entities with taxable property in the district to support district operations. Although a municipal-owned water system does not pay taxes, the users of the water, such as households and commercial businesses pay property taxes to the respective districts. Tax exempt institutions, such as schools, military bases, and prisons do not contribute taxes to district operations. Others who may benefit from the district but do not help fund operations through taxes include entities which produce underground water within the district but export it outside the district for use. While an exporting industry may be taxed on the value of the pumping plant and transmission line within the district, a tax exempt exporter would pay no taxes.

Districts rely on local tax appraisal districts to determine taxable values and county tax collectors to collect the taxes. Each of these services are an expense to the District.

Pumpage Fee

The Harris-Galveston Coastal Subsidence District does not collect taxes but receives operating funds through a pumpage fee. The fee is set at $6.50 per million gallons of water pumped annually, with the agricultural use fee set at 70 percent of that rate. The District currently has permitted 2,200 wells through the issuance of 1,500 permits. There are many wells in the two

counties that are exempt from permits. The Texas Water Commission has received drillers logs for 17,800 wells drilled in the counties since 1962. Only those persons and entities who use underground water produced within the District contribute funds towards District operation costs.

Collection of the pumpage fee is performed by District staff when application is made for a permit or permit renewal. Funds are rebated if a permittee does not produce the amount of water authorized by the permit. District staff performs audits to ensure proper reporting of water use.

Miscellaneous Sources

Another common source of revenue is interest on time deposits. This can equate to a significant portion of district operational expenses. Miscellaneous fees such as those imposed to plug open bore holes, deposits for well permits, or requests for information are also sources of funding. The High Plains Underground Water Conservation District No. 1 received over $21,000 from the sale of information related to the Federal income tax-related depletion allowance. The Harris-Galveston Coastal Subsidence District received over $25,500 in permit application fees. Also, districts can contract with other entities to provide services.

Water Sales

Amendments to Chapter 52 of the Texas Water Code contained in House Bill 2 allow districts to sell surface and ground water. To date, no existing districts have begun these operations. This could be a very significant source of revenue for districts.

Bonds and Notes

The 1985 Texas water legislation allows Chapter 52 districts to issue and sell bonds and notes to construct dams, drain lakes, install equipment, provide facilities for the purchase, sale, transportation, and distribution of surface water and ground water, and pay for organizational expenses of district creation. The bonds and notes may be secured by a pledge of taxes and/or other district revenues. Bonds or notes secured in any part by taxes must be authorized by election of district voters. To date, bonding has not been used by districts.

Other Financing Methods

There are several other possible methods of funding district operations. Some have been included in bills introduced in the Legislature.

Permit Application Fee

One suggested method is a permit application fee. This could be used to fund the expenses related to issuance, monitoring and enforcement of permits. As currently written, Section 52.166, Texas Water Code, directs districts to issue permits for drilling, equipping, or completing wells or for substantially altering the size of wells, well pumps, or for all of these operations. These permits do not expire, so routine renewal does not occur. However, it is likely that any reasonable, one-time fee per permit would not generate sufficient revenues to fund the operations of underground water conservation districts. Since 1984, the North Plains Ground Water Conservation District has issued on the average less than five well permits per month. That equates to less than one permit per county per month. These statistics are based on the

former statutory criterion which exempts wells capable of producing less than 100,000 gallons per day, whereas the new limit is 25,000 gallons per day. Only 231 logs of the wells in the seven counties in the District were received by the Texas Water Commission in FY 1986 and most of these logs probably are for wells which are exempt according to Section 52.170, Texas Water Code. An analysis of driller's logs received by the Texas Water Commission shows that approximately 75 percent of the water wells drilled in the State produce less than 25,000 gallons per day. That leaves approximately 5,000 new wells that might be subject to district permitting annually. The Harris-Galveston Coastal Subsidence District has approximately 1,500 permits which must be renewed. This district's permit application fee generated approximately $25,500 in 1985.

Well Fee

Another potential source of additional revenue is an annual fee applied to each permitted well. The total number of wells drilled in the State, which can only be estimated, is believed to be at least 600,000. It is estimated that about 100,000 irrigation wells were operational in the State in 1984. A survey of ground-water users in 1984 showed that 7,800 wells were used for municipal supply and 2,500 were used for industrial supply. Based on these values, there are at least 110,000 operational large capacity wells in Texas. Of these, approximately 56,700 irrigation wells and 2,500 municipal and industrial wells are located within existing districts. The High Plains Underground Water Conservation District No. 1 contains most of these wells (47,000 irrigation and 560 municipal and industrial). Using these values, a rate of $18 per well would raise the same revenue as taxes for that District. Likewise, using the

values for the Edwards Underground Water District (650 irrigation wells and 525 municipal and industrial wells), a rate of $2,470 per well would be needed by that District to generate the same revenue as it collected in taxes. The number of wells used are estimates and the actual number of wells permitted may vary greatly from the values given.

Pumpage Fee

A fee on pumpage is another alternative. This is the funding mechanism for the Harris-Galveston Coastal Subsidence District. This procedure has advantages in that the users of underground water pay for the cost of operating the district. All persons in the district, however, do not contribute to the operations of the district. For example, people in Harris and Galveston Counties who use surface water from Lakes Conroe and Houston or from the Trinity and Brazos Rivers do not help fund the Subsidence District through their water bills. Also, persons outside the district will help fund district operation if underground water is exported from the district. Such export is occurring from the Edwards Underground Water District, the Panhandle Ground Water Conservation District, and would be the case for the proposed Barton Springs-Edwards Aquifer Conservation District near Austin.

As a means of comparing this method of financing to ad valorem taxes, consider the following example for two individuals in Moore County, within the North Plains Ground Water Conservation District. A homeowner with a home which has a taxable value of $100,000 at the 1985 tax rate pays $8.80 in taxes to the District. A farmer with 100 acres of irrigated cropland which is valued at $1,000 per acre pays the same amount of tax. The Board's estimate of pumpage

in 1984 within the District is 1,222,000 acre-feet. To generate the same tax revenue as shown in Table 1, a pumpage fee of $0.776 per million gallons ($0.253 per acre-foot) would be needed. A homeowner in the City of Dumas would pay on the average $0.14 to the District annually through a pumpage fee. The farmer, assuming an average water-application rate for Moore County, would pay a pumpage fee of $34.67. If the District adopted the agricultural discount which the Harris-Galveston Coastal Subsidence District uses (70 percent of base rate), the homeowner would pay $0.19 and the farmer would pay $34.15 if the base fee is changed to $1.09 per million gallons ($0.355 per acre-foot). Irrigation pumpage accounts for over 96 percent of the pumpage in the District.

Delegation of State Programs

Revenue also could be generated by State-agency delegation of certain inspection and monitoring responsibilities to the districts. Activities that could affect underground water quality would be of interest. The district could take enforcement actions based on their own rules or they could recommend such to the State agency. Funding could be by grant or contract from the State agency, fee imposed by the district, or from other district funds. Examples of activities that could be covered include existing and/or proposed underground storage tanks, septic tanks, injection wells, and land fills. Also, persons engaged in activities could be required to obtain a license from the district. This could include installers of underground storage and septic tanks, water well drillers, monitor well drillers, and oil well drillers. Except for paying a portion of a district's overhead, it is likely that these programs would generate revenue sufficient only to cover the inspection and monitoring

services performed. This would be particularly true if the funding is obtained from the State.

Recommendations

Districts should be funded from a broad base. The ad valorem tax is such a system. Generally, all persons within the district receive benefits from district operations, and therefore should pay a portion of the district operational expenses. Persons who use underground water can receive benefits directly, but all persons benefit if the life of the resources is lengthened by water conservation and if the quality of the water resource is protected. Therefore, it is recommended that ad valorem taxes continue to be the prime source of district regulatory, data collection, and education funds.

Entities which export underground water from a district receive benefits from district operations, but do not help fund those operations. Therefore, it is recommended that districts be authorized to collect a fee from such exporters equivalent to the taxes which would have been collected if the users of the water were located in the district.

Districts offer a good mechanism to improve monitoring of activities which could result in contamination of underground water. It is recommended that districts continue to closely coordinate data-collection programs with State and Federal agencies and accept delegation of any State data-collection, monitoring, or other programs as might be available. Districts and State and Federal agencies should share in funding any such delegated programs.