



landowners, state action through the PGMA process, or adding territory to an existing district. Most districts have been created through the Legislature, where the local senator or representative often introduces and carries the bill on the district.

All GCD creations with authority to levy ad valorem (property) taxes are subject to a confirmation election by voters within the proposed district. Voters also elect directors and approve the ad valorem tax rate to finance the district.

More Information

The powers and responsibilities of groundwater conservation districts, the processes involved in creating districts, the PGMA process and an overview of the issues related to groundwater districts are covered in publication B-1612, "Managing Texas' Groundwater Resources through Groundwater Conservation Districts." Copies are available from county offices of the Texas Agricultural Extension Service or via the Internet at <http://agpublications.tamu.edu/pubs/eenviro>.

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Groundwater Conservation Districts

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Texas is blessed with extensive groundwater resources. Most areas of the state are underlain by one or more of nine major aquifers and 20 minor aquifers. As a result, approximately 57 percent of fresh water use and nearly 80 percent of agricultural water use in Texas come from groundwater supplies.

Proper management and protection of the quality of this groundwater resource are widely recognized as being vital to Texas' economy and growth, human health and well being, and preservation of ecosystems. To help protect and manage the groundwater resources, the Texas Legislature has established a process for local management through groundwater conservation districts.

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Texas Water Law

Texas law distinguishes between surface water and groundwater. All surface water, including streams, rivers and lakes, belongs to the state. The only exception is diffused water, such as storm water runoff, which belongs to the landowner. Surface waters are "held in trust" by the state and appropriated to users through permits or "water rights."

In sharp contrast to surface water, groundwater law is based on the English common law doctrine. This doctrine and its interpretation through case law provide that the landowner may withdraw groundwater without limitations and without being liable to neighboring landowners for any harmful effects resulting from the withdrawal. This is commonly referred to as the "right of capture." The right of landowners to capture and make "non-wasteful" use of groundwater has been upheld by Texas courts over the years with only a few exceptions.

Texas groundwater law has often been called the "law of the biggest pump"; the deepest, largest well and most powerful pump gets the water. Texas has established local groundwater conservation districts (GCDs) to manage groundwater through a number of powers they can invoke. Landowners outside of conservation districts have little recourse in protecting local groundwater or in limiting groundwater pumping impacts by neighbors.

GCDs

The Texas Legislature first provided for the voluntary creation of groundwater conservation districts in 1949. These conservation districts could be

created over any groundwater reservoir designated by the state.

The Texas Legislature, while continuing to acknowledge the "right of capture" of groundwater by landowners, passed additional legislation in 1985 and 1997 to encourage the establishment of groundwater conservation districts and, in limited cases, to allow for the creation of districts by state initiative. This legislation confirmed that locally controlled groundwater conservation districts are the state's preferred method of managing groundwater resources. The legislation also stressed the importance and responsibility of GCDs in developing and implementing comprehensive management plans to conserve and protect groundwater resources.

As of January 1999, 45 groundwater districts exist in Texas. The rationale supporting the local creation and control of groundwater districts is related to the large diversity of climatic conditions, water use patterns, growth projections and aquifer characteristics across the state. This diversity would make it difficult to formulate and administer uniform laws and regulations to govern the development and use of groundwater statewide. Locally controlled groundwater conservation districts, with rules, programs and activities specifically addressing the local problems and opportunities, is perceived as the preferred method in Texas.

Priority Groundwater Management Areas

The 1985 legislation, House Bill 2, contained provisions for the Texas Water Commission (TWC, the predecessor to the Texas Natural Resource Conservation Commission) to identify

groundwater management areas (PGMAs).

PGMAs may be designated by the TNRCC in regions that are experiencing or that are expected to experience, within the next 25 years, critical groundwater problems such as shortages of surface water or groundwater, land subsidence and contamination of groundwater. A detailed study is conducted before a "study area" is declared a PGMA. To the extent possible, PGMAs are to coincide with the boundaries of groundwater formations. To date, 16 PGMA studies have been completed, and four study areas have been designated as PGMAs.

GCD Powers and Responsibilities

Groundwater conservation districts are charged to manage groundwater by providing for the conservation, preservation, protection, recharging and prevention of waste of the groundwater resources within their jurisdictions. Groundwater conservation districts have required duties that must be performed, as well as a number of authorized powers that may be invoked.

Some of the required duties of groundwater conservation districts are to:

- Develop and adopt a comprehensive management plan for the most efficient use of groundwater, for controlling and preventing waste of groundwater, and for controlling and preventing land subsidence.
- Require permits for drilling, equipping or completing wells that produce more than 25,000 gallons per day or for alterations

to well size or well pumps. (All wells producing at least 25,000 gallons per day in existence prior to the district's creation must automatically be granted a permit.)

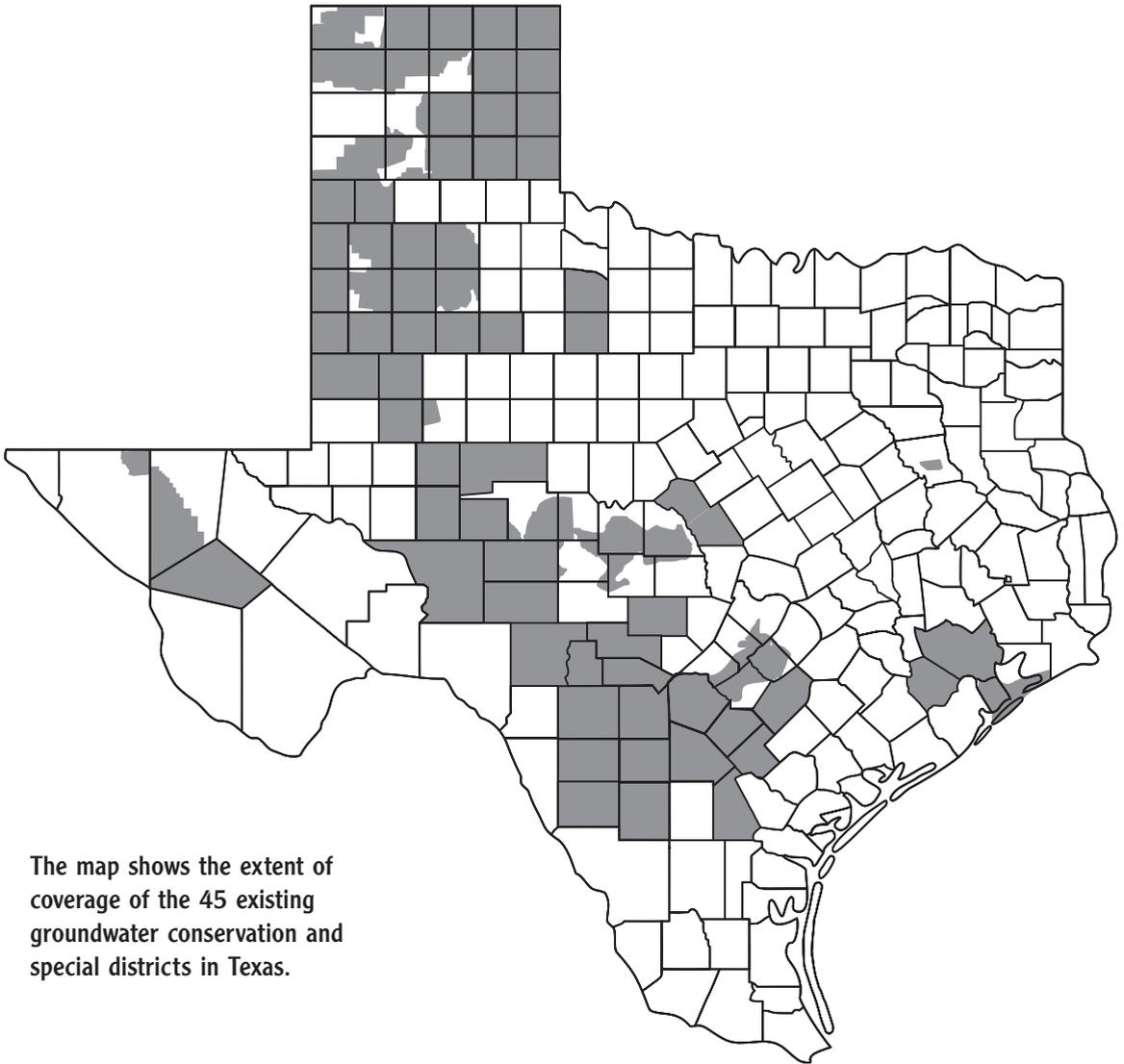
Regulations also specify requirements on the organization and operation of a groundwater conservation district, such as operating on the basis of a fiscal year, holding regular board meetings, etc.

Authorized powers and optional duties of groundwater conservation districts include:

- Adopt rules to conserve, preserve, protect, recharge and prevent waste of groundwater and control land subsidence.
- Provide for the spacing of water wells and regulate the production of wells.
- Acquire land to erect dams or to drain lakes, draws and depressions; construct dams; and establish sites for groundwater recharge.
- Purchase, sell, transport and distribute surface water or groundwater for any purpose.
- Carry out research projects and collect information regarding the use of groundwater, water conservation and the practicability of recharging a groundwater reservoir.
- Promulgate rules to require permits for transferring groundwater out of the district.

Creating GCDs

Groundwater conservation districts can be created by one of four procedures: legislative action, petition by



The map shows the extent of coverage of the 45 existing groundwater conservation and special districts in Texas.

areas of the state that have critical groundwater problems. Such problems include aquifer depletion, water quality contamination, land subsidence or shortage of water supply. Accordingly, beginning in 1986, the TWC and the Texas Water Development Board identified possible critical areas and conducted further studies.

In 1997, the Texas Legislature enacted Senate Bill 1, a major water planning and management bill that, among other provisions, required regional water planning and development of a state plan. The bill also reconfirmed and strengthened provisions for the creation of groundwater conservation districts by state initiative in priority