

Category: Governance

Indicator: Groundwater Management: Groundwater Conservation Districts

Methodology

Groundwater Conservation Districts is an indicator of the areas of Texas that have local management and regulation of groundwater pumping. We measured this indicator by mapping the boundaries of all Texas groundwater conservation districts (GCD) and compiling information on each GCD’s management practices.

We used the Texas Water Development Board’s GIS layer of GCD jurisdictional boundaries and joined to this layer additional information on each GCD from TWDB’s GCD Management Plan Summaries and the Texas Alliance for Groundwater Conservation Districts (TAGD) GCD Index. The GCD attributes from TWDB and TAGD (listed in Table 1) are included to provide a summary of management practices for each GCD. It is important to note that there are 17 districts that are not included in the TAGD database and therefore are lacking portions of the complementary information.

In the map viewer we provide a map of the GCDs of Texas and include in the GIS layer all of the supplementary information.

Table 1. Groundwater conservation district information included from TWDB and TAGD.

Source	Field Name
TWDB Management Plan Summaries	GMA
TWDB Management Plan Summaries	Area of District (single/multiple/partial-County)
TWDB Management Plan Summaries	Permit Type
TWDB Management Plan Summaries	Monitoring Program (Y/Unknown)
TWDB Management Plan Summaries	Number of Wells Monitored
TAGD Groundwater Database	Counties Covered
TAGD Groundwater Database	GCD Population
TAGD Groundwater Database	Largest Use
TAGD Groundwater Database	Income Source (fee/tax/both)
TAGD Groundwater Database	Spacing Requirements
TAGD Groundwater Database	Production Limitations
TAGD Groundwater Database	TAGD member (Y/N)

Texas Water Explorer

Methodology

Data Sources

Texas Water Development Board. GIS layer of Groundwater Conservation District boundaries.
http://www.twdb.texas.gov/mapping/gisdata/doc/GCD_Shapefiles.zip

Texas Water Development Board. Groundwater Conservation District Management Plan Summaries. Accessed March 25, 2014.
http://www.twdb.texas.gov/groundwater/management_areas/index.asp

Texas Alliance of Groundwater Districts. GCD Index. Accessed March 25, 2014.
<https://texasgroundwater.org/resources/gcd-index/>