



## Technical Note 15-06

# Groundwater Production Monitoring in the State of Texas

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by

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## Abstract

We conducted this study to determine the extent to which groundwater conservation districts in the state of Texas require groundwater production from wells to be metered. To achieve this goal, we analyzed rules for 94 established and confirmed groundwater conservation districts and 2 subsidence districts regarding production monitoring including elements such as metering, flow monitoring or measurement, and reporting requirements.

For the purposes of this study, we initially categorized districts into three groups:

1. Districts with no rule relating to groundwater metering or monitoring (9 percent)
2. Districts with strict requirements for production metering or monitoring with no additional exemptions outside of Texas State Water Code mandates (16 percent)
3. Districts with rules regarding metering or monitoring of groundwater production that either exempt certain well types not mandated by the Texas State Water Code or apply only to specific well types or in certain situations (75 percent)

We then analyzed and divided the groups into subgroups:

- Group 2
  - Subgroup 2a – districts with strict metering requirements (53 percent)
  - Subgroup 2b – districts with strict requirements allowing for use of meters or alternative flow measurement devices and districts with non-exemptible monitoring requirements (47 percent)
- Group 3
  - Subgroup 3a – districts that require metering only for water transported out of the district or sold (14 percent)
  - Subgroup 3b – districts that require metering only in certain climatic conditions (8 percent)
  - Subgroup 3c – districts that have no flow monitoring or metering requirement but have reporting requirements that suggest the necessity of groundwater production measurement (6 percent)
  - Subgroup 3d – districts that have a metering requirement but exempt wells beyond those mandated by the Texas State Water Code or only require specific well types to comply (72 percent)

In Group 3, the most common further exemptions were based on characteristics such as production capacity, pipe diameter, or type of use.

Considering that an estimated 80 percent of annual groundwater use in Texas is for agricultural irrigation purposes, a secondary goal of this study was to determine which districts provide special metering rules or exemptions for agricultural wells, specifically wells used for production agriculture and irrigation. We took each district's definition of an "agriculture well" into account in the analysis. Of the 96 districts reviewed in this study, approximately 29 percent

had specific rules or exemptions relating to agricultural metering or monitoring requirements. While some districts' rules had special provisions regarding fees or reporting withdrawals for agricultural purposes, direct permitting or metering exemptions for agricultural wells were the most commonly expressed rules in this category.

## Introduction

Groundwater in Texas may be managed individually by the landowner or collectively by land owners or groundwater conservation districts. Groundwater conservation districts can be formed in a variety of ways including by legislative action, petition by property owners, and initiation by the Texas Commission on Environmental Quality. Landowners may also petition an existing groundwater conservation district to join the district. These districts, whether locally formed or state mandated, are governed on a local level and manage groundwater by providing for the conservation, preservation, protection, recharge, and prevention of waste of the groundwater resources within their jurisdictions (Texas Water Development Board, 2012).

The concept of locally managing groundwater resources in Texas originated in 1949, when drought concerns from the Dust Bowl prompted the state legislature to promote the voluntary creation of local groundwater conservation districts (Texas Commission on Environmental Quality 2015). These districts were formed to protect water supplies while respecting the rights of property owners (Lehman, 2004). This voluntary structure for groundwater conservation remained largely unchanged until 1997 when the Texas Legislature enacted Senate Bill 1, which, among other things, provided the framework for modern groundwater management in the state (Brown, 1998). Senate Bill 1 set forth regulatory guidelines and provided local management initiatives aimed at strengthening the role of groundwater conservation districts in the state's water conservation efforts. The bill focused on the conservation of existing groundwater supplies and allowed the districts to enforce more stringent management goals by requiring water users to disclose specific information when applying for a well permit, such as a statement of purpose and quantified water usage. By 1999, Texas was home to 45 locally controlled groundwater conservation districts (Mace, 1999, 2015).

In furtherance of local groundwater management initiatives, the Texas Legislature passed Senate Bill 2 in 2001. The bill contained several elements aimed directly at expanding the scope of a district's regulatory authority. Among other provisions, Senate Bill 2 provided local groundwater conservation districts with increased authority to regulate well spacing and production to minimize instances of well interference. The bill also modified permit requirements and exemption statutes for wells used for domestic, industrial, and agricultural purposes (Lehman, 2004).

Approximately 60 percent of water used in Texas today is groundwater, a resource predicted to decrease in availability by 30 percent before 2060. In the same span of time, the state's population is predicted to increase by 82 percent (Texas Water Development Board, 2012). This skewing of water supply and demand creates an interesting conundrum for state water planners.

As the state prepares to face the challenge of meeting growing water demands, the need for innovative methods of managing and conserving groundwater resources becomes more prevalent. As of July 1, 2015, 99 confirmed groundwater conservation districts and 2 subsidence districts existed, with 3 additional groundwater conservation districts pending local

confirmation (Texas Water Development Board, 2015). Groundwater conservation districts are tasked by the Texas Water Code with the development of comprehensive management plans that, among other things, provide for the most efficient use of groundwater resources, prevent land subsidence and groundwater waste, and, where appropriate, address issues of conservation (Texas Water Code §36.1071(a)1.-7.). Under Chapter 36 of the Texas Water Code, a groundwater conservation district shall, not later than three years after the creation of the district, submit a management plan as required under Section 36.1071 to the executive administrator of the Texas Water Development Board (TWDB) for review and approval (Texas Water Code 36.117). Additionally, districts must issue permits, maintain records of local wells and production, establish operating and administrative procedures, and promulgate rules to enforce management decisions (Texas Water Code § 36.113, 36.111. 36.057).

Various other regulatory functions are left to the discretion of individual groundwater conservation districts. Expanded regulatory authority from Senate Bill 1 (1997) and Senate Bill 2 (2001) allows groundwater conservation districts to customize and enforce rules to regulate groundwater withdrawals according to local needs. Some districts include groundwater metering (the installation of water meters on wells to accurately measure withdrawals) in their rules as a means of better managing groundwater resources. Metering regulations can be used for the purposes of restricting pumping capacity, estimating groundwater availability, and more effectively managing groundwater availability throughout the state (Lehman, 2004).

### **Metering and agriculture**

Agricultural irrigation is consistently the largest user of groundwater in the state. As the largest groundwater user in the state, accurate estimates of irrigation use is imperative to planning efforts and local management decisions. To better assist local districts in their efforts to monitor agricultural irrigation water use, the TWDB administers a voluntary irrigation metering program. Through this program, participating entities (mostly groundwater conservation districts) are able to provide cost-share incentive programs to encourage agricultural producers and private landowners to install meters on their groundwater wells and/or irrigation systems. Funding sources for this program have varied throughout the years. Dating back to 1986, the TWDB has provided metering equipment to local political subdivisions through capital equipment purchases and memorandums of understanding. In 2001, the TWDB provided a regional water planning grant to the Panhandle Regional Water Planning Area (Region A) to be distributed through participating local groundwater conservation districts. Since 2005, the metering program has been administered through the agricultural water conservation grants program (Turner and others, 2011).

In 2013, the 83rd Texas Legislature appropriated \$3 million to the Agricultural Water Conservation Fund from General Revenue, in fiscal years 2014 and 2015 through Senate Bill 1 Rider 25. These funds were designated for making additional agricultural water conservation monitoring grants to groundwater conservation districts with promulgated rules requiring metering (Turner, 2015). During the 2014–2015 biennium, the Texas Water Development Board approved the full \$3 million to fund grants for 13 projects across 9 districts with eligible

metering rules (Turner, 2015). Agricultural producers located within these 9 participating districts will have access to a 50 percent cost-share reimbursement of meter purchases. These locally driven metering efforts of the participating groundwater conservation districts will lead to refinement in groundwater availability models, more accurate annual irrigation estimates, and improved irrigation water demand projections in the state and regional water plans.<sup>1</sup>

At the time of this technical note's initiation, the Texas Water Development Board did not have a publication combining groundwater metering regulations for groundwater conservation districts in the state. The purpose of this report is to present a snapshot of these groundwater metering and monitoring rules<sup>2</sup> and gauge district understanding of groundwater use across the state. Our survey of rules categorized districts based on the rigidity of their metering and production monitoring regulations (if any), the type of devices permitted, and the set of exemptions that each district allowed. Through this process we are able to provide an in-depth analysis of the extent of metering regulations in each district.

## Methodology

We conducted this study of groundwater metering requirements by extensively reviewing the rules of each groundwater conservation district and two subsidence districts. First, we compiled a list of the 102 districts (TCEQ, 2015) formed and proposed in the state as of July 1, 2015 – 99 of which were confirmed. We located the districts' rules using the TWDB website. Of the 99 confirmed groundwater conservation districts, 85 had rules published on their district websites, 10 had copies of their rules linked to the TWDB webpage, and 4 did not have rules available online. Two of the districts with no rules published online, Calhoun County and Comal Trinity, were newly formed and confirmed and had not yet adopted rules; the Texas Water Code provides for a the three-year period between district creation and the adoption of a management plan. We contacted the remaining two districts directly to request copies of their rules. Kinney County subsequently provided a copy of newly amended rules. We found proposed rules for the remaining district, Red Sands, online, but we were unable to obtain adopted rules from the district. We did not analyze the district's proposed rules as they had not been officially adopted. Given that we excluded districts without adopted rules from this study, a sample size of 96 districts remained.

We analyzed the rules largely by conducting content searches for keywords related to our study including "meter", "monitor", "measure", "report", "exempt", "agriculture", and "irrigation". We compiled all rules relating to this language into a spreadsheet categorically by the rule and exemption types they expressed. For this preliminary categorization, we classified rules containing the word "meter" as having metering requirements, while we considered rules containing requirements such as "flow monitoring devices" or "district approved production measurement device", to have monitoring requirements, as they did not explicitly require meters. The following information was recorded for each district during this stage of the

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<sup>1</sup> Note that flow meters include a very specific range of groundwater production monitoring devices, while the aforementioned flow monitor can include a much broader range of equipment.

<sup>2</sup> This report reflects information available at the time that we conducted research for the project.

research process: name of district, date rules were accessed and downloaded, and date of last rule amendment by the district. Any rules containing language relating to metering in accordance with the aforementioned search criterion were copied and pasted into the following categories: meter requirement, meter exemption, non-metering monitoring requirement, meter required for export or sale of water outside the district only, permitting exemptions, reporting requirements, reporting exemptions, agricultural metering regulations, agricultural metering exemptions, and other stipulations relating to metering.

Upon completion of the initial spreadsheet documenting all rules related to metering, a new spreadsheet was created marking each district with an “x” as belonging to one of the following categories:

- Group 1—Districts with no metering or monitoring requirements
- Group 2—Districts with strict requirements for production metering or monitoring with no exemptions beyond Texas State Water Code mandates
- Group 3—Districts with rules regarding metering or monitoring of groundwater production that exclude certain wells.

It is important to understand that every groundwater conservation district is subject to the following exemptions mandated by Section 36.117 of the Texas Water Code, unless otherwise noted in their enabling legislation or subsequent amendments:

“(b) A district may not require any permit issued by the district for: 1. a well used solely for domestic use or for providing water for livestock or poultry on a tract of land larger than 10 acres that is either drilled, completed, or equipped so that it is incapable of producing more than 25,000 gallons of groundwater a day; 2. the drilling of a water well used solely to supply water for a rig that is actively engaged in drilling or exploration operations for an oil or gas well permitted by the Railroad Commission of Texas provided that the person holding the permit is responsible for drilling and operating the water well and the well is located on the same lease or field associated with the drilling rig; or 3. the drilling of a water well authorized under a permit issued by the Railroad Commission of Texas under Chapter 134, Natural Resources Code, or for production from such a well to the extent the withdrawals are required for mining activities regardless of any subsequent use of the water.”

Districts are considered to have “non-exempted” metering or monitoring requirements by this study if they do not specify any exemptions in addition to these listed in code.

We further subdivided each group in order to provide greater detail regarding metering and monitoring regulations used by groundwater conservation districts across the state (Table 1). The separation of metering from monitoring requirements is important for grasping the scope of monitoring required. “District approved production monitoring device,” or other similar terms may be ambiguous in nature and could include a number of flow monitoring methods such as records of energy consumption, water consumption measurements based on gallons per capita per day, measuring nozzle flow rates and hours of use, or wireless, agricultural pivot tracking devices, whereas “meter” requirements tend to be more specific.

**Table 1:** Groups and subgroups analyzed.

Group	Subgroups
<b>Group 1:</b> Districts with no rule relating to groundwater metering or monitoring	None.
<b>Group 2:</b> Districts with strict requirements for production metering or monitoring with no additional exemptions outside of Texas State Water Code mandates	<b>2a.</b> Districts with strict metering requirements <b>2b.</b> Districts with strict requirements allowing for use of meters or alternative flow measurement devices and districts with non-exemptible monitoring requirements
<b>Group 3:</b> Districts with rules regarding metering or monitoring of groundwater production that either exempt certain well types not mandated by the Texas State Water Code or apply only to specific well types or in certain situations	<b>3a.</b> Districts that require metering only in certain climatic conditions <b>3b.</b> Districts that require metering only for water transported out of the district or sold <b>3c.</b> Districts with reporting requirements that suggest the necessity of groundwater production monitoring <b>3d.</b> Districts that have a metering requirement but exempt wells beyond those mandated by the Texas State Water Code or only require specific well types to comply

Exemptions recorded by this study, beyond those required by the Texas Water Code, were separated into three subdivisions: exemptions specific to metering requirements, exemptions from permitting that affected metering, and exemptions from reporting requirements. Exemptions from permitting, the most common type, also included, on occasion, grandfathered wells, or wells that were in existence prior to the creation of the districts rules or the adoption of metering or monitoring requirements.

## Analysis

### Group 1

The following eight districts were included in Group 1, requiring no metering or monitoring: Clear Fork, Coke County, Garza County, Glasscock, Lone Wolf, Permian Basin, Refugio, Sandy Land, and South Plains. These groundwater conservation districts did not have rules pertaining to either metering or any type of flow monitoring in any circumstance. They did not have production amount reporting requirements. These districts equate roughly 9 percent of the total.

### Group 2

Group 2 contained 15 groundwater conservation districts (16 percent) which had strict metering or monitoring requirements. We defined strict as requiring metering, production monitoring, or the use of district-approved alternative measurement devices with no permitted exemptions beyond the previously mentioned Texas Water Code section 36.117 mandates. Districts in the strict meter requirement subgroup (Subgroup 2a) contained rules requiring metering of all permitted wells. Eight districts belong to Subgroup 2a (Table 2), which used language explicitly pertaining to the use of “meters” with no alternative measurement options. This subgroup represents approximately 8 percent of the total and 53 percent of Group 2.

**Table 2:** Districts with strict metering requirements not allowing for alternative measurement methods or exemptions (Subgroup 2a).

District	Rule	Date Amended
Brewster County	<b>5.2.</b> (a) New operating wells will be equipped with equipment to measure static and pumping levels to facilitate well monitoring. (c) All non-exempt operating wells will be metered.	19-Feb-15
Cow Creek	<b>3.1.</b> (b) ...An operating permit shall require installation of a meter, specify and authorize the annual maximum groundwater production from the well as provided by Rule 10, the owner of the well, the well number, the purpose of use permitted, and any special permit conditions, including the production fee, if required under Rule 4.4.	12-Aug-10
Culberson County	<b>8.001.</b> (a) Duty to Install: The owner and/or operator of a non-exempt well located within the District shall equip the well with a meter meeting the specifications of these Rules and shall operate and maintain the meter to measure the instantaneous flow rate and cumulative amount of groundwater withdrawn from the well. For an existing, non-exempt well, a meter shall be installed by the owner and/or operator no later than January 1, 2012. For a new, non-exempt well, a meter shall be installed before any groundwater is withdrawn from the well.	7-Mar-12

District	Rule	Date Amended
Guadalupe County	<p><b>5.1.</b> (d) To insure regular production monitoring, all permitted wells shall be equipped with approved metering devices accessible to District employees at any time during normal business hours. The District may require the permit holder, at the permit holder's expense, to test the accuracy of the meter and submit a certificate of the test results. This requirement is in addition to the requirement for meter calibration in District Rule 5.10. If the tests reveal that a meter is not registering within an accuracy of 95%- 105% of actual flow, or is not properly recording the total flow of groundwater withdrawn from the well or well system, the permit holder must take appropriate steps to remedy the problem, and to retest the meter within 90 calendar days from the date the problem is discovered.</p>	10-Nov-10
Hemphill County	<p><b>5.505.</b> (a) Producing groundwater from the aquifer from a well, or exporting groundwater outside the District's boundaries, without a required meter is illegal, wasteful per se, and a nuisance. Unless a person has installed a properly functioning meter as required under this subchapter, no person may produce groundwater from an existing or new well, or export groundwater outside the District's boundaries. The owner of the well, or export pipeline, shall install a meter to measure the flow rate and cumulative amount of groundwater produced from the well.</p> <p><b>5.513.</b> (a) Types of meters approved for installation are as follows: 1. internal impeller meters; 2. magnetic meters; and 3. time-delay ultrasonic meters. (b) The types of flow meters prohibited from installation are as follows: 1. Doppler ultrasonic flow meters; 2. pilot tube meters; and 3. open discharge meters.</p>	17-Jul-13
Jeff Davis County	<p><b>8.1.</b> All production wells are required to be metered in accordance with this section. (a) Approved Meters: Meters must be mechanically driven, digital, totalizing water meters. The digital totalizer must not be resettable by the permittee and must be capable of a maximum reading greater than the maximum expected pumpage during the permit term. Battery operated registers must have a minimum five year life expectancy and must be permanently hermetically sealed. Battery operated registers must visibly display the expiration date of the battery. All meters must meet the requirements for registration accuracy set forth in the American Water Works Association Standards for cold-water meters.</p>	1-May-01
Kinney County	<p><b>4.02.</b> (b) Equipment Required for Establishing Quantity of Groundwater Produced. All non-exempt use wells must have installed meters and monitoring equipment approved by the District from a list of approved vendors. Monitoring equipment may include real-time monitoring equipment installed at the District's office at the well owner's expense.</p>	12-Mar-15

District	Rule	Date Amended
	The meter and monitoring equipment installation must be inspected by the District and schematic drawing of installation provided to the District. Metering Device failure must be reported to the District and the District must approve an appropriate measuring alternative. The purpose of the approved meter and monitoring equipment is to ensure that the District has the capability to promptly and accurately measure the amount of groundwater being transported out of the District.	
Medina County	<b>13.1.</b> (a) Duty to Install: The owner and/or operator of a non-exempt well located within the District shall equip the well with a meter meeting the specifications of these Rules and shall operate and maintain the meter to measure the instantaneous flow rate and cumulative amount of groundwater withdrawn from the well. For an existing, non-exempt well, a meter shall be installed by the owner and/or operator by no later than the April 1, 2011. For a new, non-exempt well, a meter shall be installed before any groundwater is withdrawn from the well. Upon installing a new meter on a new or existing well, the owner and/or operator of the well shall register the meter with the District. All registrations under this Chapter shall identify the manufacturer and model of the meter, and the serial number of the particular meter installed. (b) Approved Meters: Meters must be mechanically driven, digital, totalizing water meters. The digital totalizer must not be resettable by the permittee and must be capable of a maximum reading greater than the maximum expected pumpage during the expected lifetime of the meter. Battery operated registers must have a minimum five year life expectancy and must be permanently hermetically sealed. Battery operated registers must visibly display the expiration date of the battery. All meters must meet the requirements for registration accuracy set forth in the American Water Works Association standards for cold-water meters.	24-Mar-10
Mesquite	<b>4.1.</b> Metering System: All Groundwater produced from non-exempt Wells within the District after January 1, 2017 shall be metered by a District approved flow meter. The meter shall be at the Well or at the central collection point on a closed system	16-Apr-15

Subgroup 2b (Table 3) contained both districts with strict requirements allowing metering to be interchanged with a district approved alternative measurement device and non-exemptible flow monitoring requirements. As mentioned previously, we separated rules requiring water meters from rules requiring other production monitoring devices due to the general ambiguity of terms such as “production monitoring device” (as opposed to the relative consistency of

“meter”). This subgroup, containing 7 districts, comprised about 7 percent of the total and 47 percent of the group.

**Table 3:** Districts with strict requirements allowing metering to be interchanged with a district approved alternative measurement device and non-exemptible flow monitoring requirements (Subgroup 2b).

District	Rule	Date Amended
Corpus Christi	<p><b>8.4.4.</b> Injections or withdrawals from all non-exempt wells must be measured by a water meter or estimated by the owner or operator using a water measuring device or method that is within plus or minus 10% of accuracy. Measured or estimated water use shall be reported to the district monthly and the applicable fee paid. Permittees shall keep accurate records of the groundwater injected or withdrawn and the purposes of the withdrawal. Such records shall be available for inspection by district representatives.</p>	18-Apr-13
High Plains	<p><b>5.7.</b> Beginning on January 1, 2015, all non-exempt wells are required to begin recording the use of groundwater through a meter or through the use of an approved alternative measuring method as prescribed by Rule 5.8. Metering is required for any well that is not authorized to produce using an approved alternative reporting method.</p> <p><b>5.8.</b> An owner or operator shall report the use of groundwater as measured by meter(s), or one of the following alternative methods: (a) One Irrigated Crop. An owner or operator of property producing groundwater solely for agricultural purposes may certify that they will not engage in the practice of double cropping as defined in Rule 1 (n). Certification under this provision shall satisfy the requirements of Rule 5.3 subject to verification by the District. (b) Energy Consumed. An owner or operator of property producing groundwater may certify the amount of energy consumed by producing said groundwater in accordance with the methods developed and published by the Board. (c) Nozzle Packages. An owner or operator of property producing groundwater for use through a center pivot or drip irrigation system may certify: (a) the nozzle package flow rate, and (b) the hours of use. Hours of use may be reported by (a) the hour-meter or (b) computer recording system such as PivoTrac Monitoring, AgSense, Wagnet or similar type system approved by the Board. (d) Confined Animal Feeding Operation (CAFO). An owner or operator of property producing groundwater for use in a Confined Animal Feeding Operation may certify the average number of animals on feed during a year, multiplied by a water use value (gallons per head per day) for a</p>	13-Mar-15

District	Rule	Date Amended
	<p>particular animal type. (Annual use = Average number of animals per day x Daily Water Intake x 365). (e) Maximum Production Capacity. Certification of the production rate on contiguous acres of 0.93 gallons per minute per acre or less demonstrates the subject property is unable to exceed the Allowable Production Rate. This certification, once verified by the District, will be effective until such time that the irrigation system's capacity is altered. (f) Other Approved List of Alternative Reporting Methods. An owner or operator of a non-exempt well may apply to the Board for approval of any alternative reporting method or additional meters not included in the list developed by the District. The Board will approve or deny such applications, after notice and an opportunity for a hearing. (g) If an owner or operator of property producing groundwater solely for agricultural purposes fails to choose one of the above reporting methods, they will be deemed to have elected Rule 5.8 (a), subject to verification by the District.</p>	
Hudspeth County	<p><b>5.1.</b> (a) All owners of Non-exempt Wells or Well Systems located within the District shall equip such wells with flow metering device(s) meeting the specifications of these Rules and shall operate the meters on such wells to measure the instantaneous flow rate and cumulative amount of groundwater withdrawn from the well. (b) A meter shall be installed by the owner or operator of any existing operational nonexempt Well System no later than four months after the Effective Date of these Rules. <b>5.2.</b> (a) The types of meters approved for installation are: 1. Internal Impeller Meter, 2. Magnetic, 3. Time-Delay Ultrasonic, and 4. Any flow measurement method approved in writing by the General Manager of the District.</p>	8-Mar-11
Live Oak	<p><b>15.</b> (a) All groundwater production that has the capability of producing more than 25,000 gallons per day shall be metered or accurately measured by a District-approved method. <b>21.</b> (m) All permitted transportation facilities must be equipped with flow monitoring devices approved by the District and available for District inspection at any time.</p>	30-Nov-11
Middle Pecos	<p><b>10.6.</b> (d) Withdrawals from all nonexempt wells must be accurately measured either by meter or District-approved alternative measuring method, in accordance with the District's rules. The owner or operator of all permitted wells must file an annual pumpage report with the District. If the well is metered, the meter readings must be attached to the annual pumpage report filed with the District. Wells that are drilled, completed, or equipped so that they are incapable of producing more than 25,000 gallons per day are not required to have a meter or report annual production if used for domestic purposes or for watering livestock or poultry</p>	21-Oct-14

District	Rule	Date Amended
Rusk County	<p><b>9.7.</b> Withdrawals from all non-exempt wells must be measured or estimated by the owner or operator using a device or method approved by the District that is within plus or minus 10% of accuracy. The operating permit holder shall maintain records of withdrawal on the property where the well is located or at its business office, and shall make those records available to the District for inspection. Whether measured or estimated by an approved method, water use shall be reported to the District annually, as requested by the District.</p>	4-Aug-08
Wintergarden	<p><b>6.4.</b> Water Meters or Monitoring Devices. All wells or production facilities subject to the requirement to obtain a well permit under Rule 10, shall be equipped with a flow meter or at a minimum, a production monitoring device approved by the District, and available for District inspection at any time during normal business hours. An hour meter may be considered as a production-monitoring device on a well, if the well output (expressed in gallons per minute) can be accurately determined.</p> <p><b>10.10.</b> Well Meters or Monitoring Devices. A permitted well (i.e., not a grandfathered well) or related groundwater production facilities subject to the requirement to obtain a well permit, shall equip the well or the production facility with a well meter or monitoring device in accordance with Rule 6.4.</p>	29-Mar-07

*Group 3*

Group 3 was the largest group, containing 72 total districts (75 percent). This group focused on districts that had metering or monitoring requirements in their rules that in some way excluded certain wells from compliance in addition to those already excluded in the Texas Water Code. Subgroup 3a (Table 4) included 10 districts that required metering or monitoring of groundwater production only when that water was to be transported out of the district or sold. This subgroup contained roughly 10 percent of the total and 14 percent of the group. Most districts in Subgroup 3a allow groundwater to be transported out of the district for a variety of uses, often including agricultural use by farmers with land on either side of district boundaries and sale or redistribution to other regions. Specific requirements or exemptions for groundwater to be transported out of the district are common among all subgroups in Group 3, not only in Subgroup 3a. We placed districts into Subgroup 3a if they did not mention monitoring of groundwater production in any circumstances other than for transportation or sale.

**Table 4:** Districts requiring production monitoring and metering for water to be transported only (Subgroup 3a).

<b>District</b>	<b>Rule</b>	<b>Exemption</b>	<b>Date Amended</b>
Bee	<b>22.</b> ...All permitted transportation facilities must be equipped with flow monitoring devices approved by the District and available for District inspection at any time...	None.	18-Oct-12
Duval County	<b>20.</b> ...All permitted transportation facilities must be equipped with flow monitoring devices approved by the District and available for District inspection at any time.	<b>1.</b> "Exempt Well" means any artificial excavation constructed, fitted or equipped to produce less than 25,000 gallons of water per day. Exempt Wells must be registered in accordance with these rules but are otherwise exempt from any other requirements for obtaining permits, installing meters, or reporting usage.	16-Feb-10
Kimble County	<b>6.13.</b> (a) All transporting facilities for well subject to the requirements of this subsection shall be equipped with flow monitoring devices approved by the District and shall be available for District inspection at any time.	None.	15-Aug-04

District	Rule	Exemption	Date Amended
Lipan-Kickapoo	<b>16.6</b> (a) All transporting facilities for wells subject to registration and permitting shall be equipped with flow monitoring devices approved by the District and shall be available for inspection by District personnel at all reasonable times.	None.	5-Sep-11
Menard County	<b>12.11.1.</b> All transporting facilities for wells subject to the requirements of this subsection shall be equipped with flow monitoring devices approved by the District and shall be available for District inspection at any time.	None.	14-May-13
Middle Trinity	<b>13.1.</b> (a) A meter is required for the production or transport of any groundwater for use inside or outside of the District for any activity for which a fee that is based on the amount of groundwater produced or transported is required to be calculated under these Rules. The owner of a well required to be metered under this Rule shall equip the well with a flow measurement device meeting the specifications of these Rules and shall operate the meter on the well to measure the cumulative amount of groundwater required to be measured. (b) A mechanically driven, totalizing water meter is the only type of meter that may be installed on a well required to be metered under this Rule. The totalizer must not be resettable by the permittee and must be capable of a maximum reading	<b>5.4.</b> (a) 2. Drilling or operating a well used solely for domestic use or livestock use overlying a tract of land equal to or less than 10 (ten) acres that is either drilled, equipped, or completed so that the well is incapable of producing more than 25,000 gallons of groundwater per day and that: (A) the tract of land was platted prior to May 11, 2004 for a well located in Comanche and Erath Counties, prior to November 15, 2009, for a well located in Bosque County, and prior to June 15, 2010, for a well located in Coryell County; and (B) the tract of land is not further subdivided into smaller tracts of land after May 11, 2004 for a well located in Comanche and Erath Counties, after November 15, 2009, for a well located in Bosque County, and, after June 15, 2010, for a well located in Coryell County and prior to the drilling, completion, or equipping of the well.	11-May-04

District	Rule	Exemption	Date Amended
	greater than the maximum expected pumpage or amount transported during the permit term...		
Rolling Plains	<p><b>15.2.</b> (a) Persons producing or transporting groundwater within the District or transporting water across the District’s boundaries shall install meters, if required, as set forth under this Section.</p> <p>(b) The installation of meters shall be mandatory in the following situations and locations: 1. If water is being produced from a well or well system located on a tract of land in one Section and any of such water produced is being used on a different Section of land, a meter shall be installed at the wellhead(s) and/or at a distribution point or points capable of ensuring an accurate accounting for the District of all water produced from the tract of land or Section and all water transported for use at a location outside of that Section; 2) If water is being produced from a well or well system located within the boundaries of the District and any of such water produced is being transported across the District’s boundaries Groundwater District Rules 27 for use outside of the District, a meter shall be installed at the wellhead(s) and/or at a distribution point or points, including at any point at which water is finally transported across the District’s boundaries,</p>	None.	18-Sep-03

District	Rule	Exemption	Date Amended
	<p>capable of ensuring an accurate accounting for the District of all water produced from such well or well system and all water transported across the District's boundaries for use outside of the District; 3. If a person has been under enforcement by the District for violation of District Rules or Chapter 36, Texas Water Code, and has been determined by the Board to have violated the same, all wells owned or operated by such person and located within the District shall have meters installed at the wellheads, unless a variance is granted by the Board for just cause at its sole discretion; or 4. If the Board by order determines, for good cause, that a well or distribution system should be metered to further the purposes of these Rules, the District Act, or the District's groundwater management plan, the well or distribution system shall be metered in accordance with the Order of the Board.</p>		
San Patricio County	<p><b>21.</b> ...All permitted transportation facilities must be equipped with flow monitoring devices approved by the District and available for District inspection at any time...</p>	<p><b>1.</b> "Exempt Well" means any artificial excavation constructed, fitted or equipped to produce less than 25,000 gallons of water per day. Exempt Wells must be registered in accordance with these rules but are otherwise exempt from any other requirements</p>	1-Apr-12
Starr County	<p><b>9.2.</b> An application for the transportation of water for which a registration is required under this Rule must: (i) if the water is to be resold to others, provide a description of the</p>	<p><b>12.8.</b> (h) Water produced by an exempt well may not be sold. [No wells exempt outside of Texas Water Code Section 36.117 mandates]</p>	1-Sep-01

District	Rule	Exemption	Date Amended
	<p>entity's service area, entity's metering and leak detection and repair program for its water storage, delivery and distribution system, entity's drought or emergency water management plan, and information on each customer's water demands, including population and customer data, water use data, water supply system data, wastewater data, water conservation measures and goals, and the means for implementation and enforcement. <b>12.4. (e)</b> Production from all non-exempt wells for water sales in or outside of the District must be metered by the owner or operator using a device or method that is within plus or minus 2% of accuracy. Measured or estimated water use shall be reported to the District monthly. Water use may be verified by District. Water sales may be verified by the District.</p>		
Terrell County	<p><b>6.1. (a)</b> The owner of a well that produces water that is transported outside of the District shall equip the well with a meter or a flow measurement device meeting the specifications of these Rules and shall operate the meter or flow meter on the well to measure the flow rate and cumulative amount of groundwater withdrawn from the well.</p>	None.	29-Oct-14

Subgroup 3b (Table 5) consisted of six groundwater conservation districts with groundwater metering or monitoring rules only in specific environmental or hydrological circumstances, such as severe drought or clear and convincing evidence of possible aquifer over mining leading to sustained drawdown of water levels. The districts in this subgroup had varying degrees of strictness. Many contained additional permitting exemptions while others mentioned metering as a possible step, not a requirement. This subgroup contained close to 6 percent of the total and 8 percent of the group.

**Table 5:** Districts with rules pertaining to metering in specific environmental circumstances (Subgroup 3b).

District	Rule	Exemption	Date Amended
Gateway	<p><b>7.2.</b> (a) Extreme Decline Study Area (ESDA) Defined: An ESDA is naming (designation) and drawing on a map (delineation) of a square, nine ft. (9) section area. The purpose for designating an ESDA is to collect hydrological information on all wells in that area. An ESDA may not be any other size or configuration. This size will be large enough to be non-discriminating and small enough to minimize the number of landowners, well owners/operators, or known water right holders.</p> <p><b>7.3.</b> (a) Production Use Measurement Area (PUMA) is the succeeding process of protecting and conserving the aquifer. If the results obtained from the EDSA show clear and convincing evidence of possible over-mining of the aquifer, further actions by the District may be necessary to protect and conserve the groundwater. The Board will designate and delineate an area to accurately measure the use of water. The area must be located inside the EDSA, and the size cannot be larger than four (4) contiguous Sections. The designated area will be large enough to be non-discriminating and will include no less than three (3) different landowners, well owners/operators, or water right holders.</p> <p><b>8.5.</b> (A) All groundwater transportation facilities shall be equipped with flow monitoring devices approved by the District and shall be available at all reasonable times for inspection by District personnel.</p>	None.	1-Jul-03

District	Rule	Exemption	Date Amended
Goliad County	<p><b>Section V.</b> The President of the Board, or his/her designee, shall monitor the defined drought trigger indices and shall determine when conditions warrant initiation or termination of each stage of the Plan. Public notification by the District of the initiation or termination of drought stages shall be by means of notice posted in a newspaper of general circulation and by direct mailing and/or emails to owners/ operators of non-exempt wells. (b) Restriction on Non-exempt Wells – The District has the authority to monitor and manage the production from all Non-exempt (Permitted) wells. These include non-exempt wells used as Public Water Supply (PWS) wells to provide for domestic use and all such wells used to support agricultural, industrial, commercial, institutional and other non-domestic uses. This Plan may place restrictions on the production from such wells as a function of drought stage.</p> <p><b>12.4.</b> (e) Production from all non-exempt wells for water sales in or outside of the District must be metered by the owner or operator using a device or method that is within plus or minus 2% of accuracy. Measured or estimated water use shall be reported to the District monthly. Water use may be verified by District. Water sales may be verified by the District.</p>	<p><b>12.8.</b> Permitting requirements do not apply to the following:</p> <p>(a) A well drilled or equipped such that it is incapable of producing more than 25,000 gallons of groundwater per day for domestic use such as for drinking water, cooking, and washing; provided that the minimum acreage is 1.7 acres. (b) A well used for providing water for livestock or poultry on a tract of land larger than ten (10) acres that is either drilled, completed, or equipped so that it is incapable of producing more than 25,000 gallons of groundwater a day; (c) A well used solely for domestic use on a tract of land less than 1.7 acres provided that the maximum pumping capability is adjusted on the basis of 10 gallons per minute per acre (d) Irrigating a garden or orchard, if the produce of the garden or orchard is to be consumed by the individual, family or household;</p>	16-Feb-15

District	Rule	Exemption	Date Amended
Gonzales County	<p><b>15. (f)</b> All transportation facilities subject to registration or permitting shall be equipped with flow monitoring devices approved by the District and shall be available at all reasonable times for inspection by District personnel. The operator of a transportation facility shall be required to keep records and make reports to the District as to the operation of the transportation facility.</p> <p><b>19. (a)</b> In order to minimize, as far as practicable, the drawdown of the water table or reduction of artesian pressure, to prevent interference between wells, to prevent degradation of water quality, to encourage conservation and to prevent waste in accordance with Chapter 36.116 of the Texas Water Code, the District shall apply a reduction in the allowable permitted production if the Board determines that a well or well field has caused or significantly contributed to an exceedance of the drawdown limits...</p> <p><b>19. (d)</b> When the Board delineates a management area or areas to have limited production it may require: 1. All wells located within the designated management area or areas capable of producing 25,000 gallons or more per day, to be equipped with a District approved meter or measuring device.</p>	<p><b>19. (c)</b> After the public hearing the Board may within thirty (30) days take action on a resolution designating the specific management area(s) and limiting production. Historic use status wells, up to the maximum amount of water certified shall be exempt from reductions in production rates; however such wells will be required to implement water conservation measures.</p>	16-Mar-10
Hill Country	<p><b>5.5. (b)</b> The Board may require monitoring devices on permitted wells, which would be available for District inspection during business hours. An hour meter may be considered as a production monitoring device, if the well output (gpm) can be measured accurately.</p> <p><b>9.2.</b> Permits for new wells or amendments to permits for increased production from existing wells may be subject to increased spacing, restricted production, or denial if the well is located in a High Historical Groundwater Use Area (HHGUA). The District can declare a HHGUA and Buffer Zones only after notice and hearing conducted according to the procedure required by Rule 12.1 Such a designation will be based on current production levels, well density, and</p>	None.	8-Jul-08

District	Rule	Exemption	Date Amended
	<p>aquifer conditions as determined by the District’s aquifer monitoring program. These criteria are as follows: (d) 3. Metering of either flow or pumped time shall be required for new or increased production permitted well production in a HHGUA.</p> <p><b>9.3.</b> The District periodically reviews the water level data obtained from its various water level monitoring programs across the District. If evidence of drawdown of the water table or reduction of artesian pressure in an area of an aquifer indicates an aquifer mining situation, that is, a non-sustainable yield, and/or in consideration of such local climate indicators such as the Palmer Hydrological Drought Severity Index published by the National Oceanic and Atmospheric Administration (NOAA), the Board may declare the area a Critical Groundwater Depletion Area (CGDA). Prior to establishing a CGDA the District will invite comment from and exchange aquifer condition data with well owners within the proposed CGDA. (b) 3. Require all Permitted Wells within the CGDA to be equipped with a District approved meter or measuring device. The expense of the device shall be borne by the well owner. (b) ...Owners of Permitted Wells within the CGDA shall provide the District with reports of the amount of water produced from each well under permit in the CGDA on forms provided by the District and on a schedule determined by the Board. If the Board has not required metering devices on wells, production volume reports shall be provided by accurate estimates such as recording duration of pumping and the well output capacity (gpm).</p> <p><b>10.9.</b> 1. All permitted transportation facilities shall be equipped with flow monitoring devices approved by the District and shall be available at all reasonable times for inspection by District personnel, 2. The operation of a permitted transportation facility shall be required to keep records and provide monthly production reports</p>		

District	Rule	Exemption	Date Amended
	to the District, which show daily production rates.		
Mesa	<p><b>7.2.</b> An Extreme Decline Study Area (EDSA) is naming (designation) and drawing on a map (delineation) of a square, nine (9) section area. The purpose for designating an EDSA is to collect hydrological information on all wells in that area. An EDSA may not be any other size or configuration. This size will be large enough to be non-discriminating and small enough to minimize the number of landowners, well owners/operators, or known water right holders.</p> <p><b>7.3.</b> The Production Use Measurement Area (PUMA) is the succeeding processes of protecting and conserving the aquifer. The results obtained from the EDSA shows clear and convincing evidence of possible over mining of the aquifer. Further actions by the District may be necessary to protect and conserve the groundwater. The Board will designate and delineate an area, to accurately measure the use of water. The area must be located inside the EDSA, and the size cannot be larger than four (4) contiguous Sections. The designated area will be large enough to be non-discriminating and will include no less than three 3. different landowners, well owners/operators, or water right holders. C. Procedure following Establishment of PUMA 1. All well / well systems shall require an operating permit. (a) The District will provide and install a water measuring device to accurately measure the water used in each operating permit.</p> <p><b>8.1.</b> When located inside a Production Use Measurement Area, a water meter shall be installed on all wells or aggregate well systems which require an operating permit in the amount of four (4) acre feet. Unless otherwise required by these rules, the district will provide the metering device including installation and maintenance of the unit to determine the actual true and correct total gallons of water being produced.</p> <p><b>10.3.</b> D. Water Meter: At the time a water meter is required in a PUMA, it shall be installed by the</p>	None.	11-Jul-06

District	Rule	Exemption	Date Amended
	District to accurately record gallons during a specified period of time.		
Saratoga	<p><b>8.2.</b> Once a CGDA (critical groundwater depletion area) is declared and delineated, the area shall be given a unique name or number for identification purposes and all registered and permitted well owners in the area shall be notified. Notification of all Board decisions related to a CGDA shall be made to all registered and permitted well owners within the CGDA by published notice. When the Board declares and delineates a CGDA, the Board shall take action, including any combination of the following:</p> <p>3. Require all Permitted Wells within the CGDA to be equipped with a District approved meter or measuring device. The expense of the device shall be borne by the well owner.</p>	None.	13-Aug-07

Subgroup 3c (Table 6) consisted of four districts with reporting requirements that suggested the necessity of a method of groundwater production monitoring. Groundwater conservation districts in this subgroup did not have rules specifically requiring, or declaring as an option, metering or any type of production monitoring. They composed about 4 percent of the total and 6 percent of the group.

**Table 6:** Districts with reporting requirements suggesting the necessity of groundwater production monitoring (Subgroup 3c).

District	Reporting Requirement	Exemption	Date Amended
Irion County	<b>3.207.</b> (c) All permittees shall maintain records of the actual amount of production and amount of production for each use. The annual production and use reporting period shall begin on January 1 of each calendar year. These reports shall be filed in the District Office by January 15 of each calendar year.	None.	7-Aug-06
Santa Rita	<b>1. C.</b> (d) The permittee must keep records of the amount of groundwater produced and the purpose of the production and agrees to make those records available for District inspection, if requested by the District, on a regular basis, send such records to the District. Immediate written notice must be given to the District by the permittee in the event the well is either polluted or causing pollution of the aquifer.	None.	17-Jan-12
Sterling County	<b>3.207.</b> (c) All permittees shall maintain records of the actual amount of production and amount of production for each use. The annual production and use reporting period shall begin on January 1 of each calendar year. These reports shall be filed in the District Office by January 15 of each calendar year.	None.	13-Apr-09
Sutton County	<b>4.004.</b> (a) The owner of each permitted well shall keep records of the production and use of underground water from the permitted well. The owner of a permitted well shall file a production report with the District on January 1 and July 1 of each calendar year. The production and use report shall state the actual uses of the underground water produced from the well and the amount of water dedicated to each use. All reports required by this Rule shall be filed at the District's office in Sonora, Texas.	None.	15-Oct-03

Subgroup 3d (Table 7) is by far the largest subgroup in this category and overall. This subgroup consisted of all (52) groundwater conservation districts that contained rules requiring, or listing as an option, metering or monitoring, to some extent, beyond stipulations of subgroups a–c. Most commonly, these districts allowed monitoring requirements to be exempted beyond Texas Water Code requirements or required metering only on specific well types. The districts in this subgroup comprise approximately 54 percent of all districts studied and 72 percent of Group 3. Most exemptions were provided for specific well types, locations, and production amounts. Some districts in this subgroup also had rules that qualified them to fit into other subgroups in Group 3; however, since the language of these rules did not restrict them specifically to the aforementioned subgroups, they were only included here. Varying degrees of strictness were implied. For the sake of clarity and greater ease of understanding, districts with metering and monitoring requirements are marked in Table 7.

**Table 7:** Districts with rules requiring, or presenting as an option, groundwater metering or monitoring with exemptions beyond those mandated by the Texas Water Code and previously discussed subgroups (Subgroup 3d).

District	Rule	Exemption	Monitor	Meter	Date Amended
Bandera County	<p><b>3.6.</b> (a) This rule applies to new wells that supply more than five (5) and less than fifteen (15) connections. (e) The operator shall utilize a meter and record the volume pumped on a monthly basis and shall report the amounts to the District by January 15th of each calendar year on a form promulgated by the District.</p> <p><b>3.11.</b> (a) Unless exempted under Rule 3.9. (c), all wells permitted shall be equipped with production monitoring devices approved by the District and available for District inspection at any time during normal business</p>	<p><b>3.2.</b> A. The District will not require a permit for drilling or producing from a well so long as the well is one of the following: (a) For a well located on a tract of land platted before September 1, 2002 and used solely for domestic use or for providing water for livestock or poultry, and that is drilled, completed, or equipped so that it is incapable of producing more than 25,000 gallons of groundwater a day. Also, the tract of land cannot already have an existing working well... The lot size exemption applies only to tracts of land platted before September 1, 2002. For lots platted after September 1, 2002, a track size of five acres or more will be required for a registered well... (b) A Well</p>	x	x	15-Mar-13

District	Rule	Exemption	Monitor	Meter	Date Amended
	<p>hours</p> <p><b>5.3.</b> (b) Well(s) producing water for export shall be equipped with a meter approved by the District, and the device shall be available for District inspection.</p> <p><b>10.6.</b> A. If the Board determines that requirements have not been met, then the board may choose from the following actions to ensure compliance with District Rules: (e) Continue to work with the owner until compliance is met. The District may mandate the monitoring of groundwater use by requiring a meter on the well. The District may mandate the provision of regular production reports as determined by the Board.</p>	<p>located on a tract of land, platted on or after September 1, 2002, of 5 acres or more and used solely for Domestic Purposes and/or for providing water for Livestock or poultry, and that is drilled, completed, or equipped so that it is incapable of producing more than 25,000 gallons per day. There cannot be another water well located on the same 5 acres... For multiple water wells on the same tract of land over 5 acres there shall be a minimum of 5 acres per well to help ensure the wells will still be considered as exempt registered wells. (c) Wells with more than 3 and less than 15 residential connections, and are not considered public water supplies, must be permitted by the District as a Community Shared Well.</p>			
Barton Springs/ Edwards Aquifer	<p><b>3-2.1.</b> A functioning water meter with register, meeting AWWA standards for the line size, pressures, and flows, that is properly installed according to the manufacturer's specifications or other measuring device approved by the District, is required on all nonexempt wells and/or</p>	<p><b>3-1.3.</b> B. 1. A well drilled after August 14, 2003 in the Western or the Eastern Freshwater Edwards Management Zone is exempt if it is registered with the District and it is: (a) A well that is used solely to supply the domestic needs of 5 or fewer households and a person who is a member of each household is either the owner of the well, a person related to the owner or a member of the owner's</p>		x	11-Oct-12

District	Rule	Exemption	Monitor	Meter	Date Amended
	<p>nonexempt Aggregate Wells, at the point each permitted pumpage amount applies. Meters are not required to be installed on exempt wells but exempt well owners are strongly encouraged to install meters for their own use and benefit.</p>	<p>household within the second degree by consanguinity, or an employee of the owner, that is either drilled, completed or equipped so that it is incapable of producing more than 10,000 gallons of groundwater a day, and is on a tract of land larger than 10 acres. (b) A well that is used for providing water for livestock or poultry that is either drilled, completed, or equipped so that it is incapable of producing more than 10,000 gallons of groundwater a day, and is on a tract of land larger than 10 acres. B. 2. A well drilled before August 14, 2003 in the Western or the Eastern Freshwater Edwards Management Zone is exempt if it is registered with the District and it is: (a) A well not capable of producing more than 10,000 gallons per day; (b) A well used to satisfy the needs of five or fewer households and a person who is a member of each household is either the owner of the well, a person related to the owner or a member of the owner's household within the second degree by consanguinity, or an employee of the owner; (c) A well used for the watering, raising, feeding, or keeping of livestock for breeding purposes or for the production of food or fiber, leather, pelts or other tangible products having a</p>			

District	Rule	Exemption	Monitor	Meter	Date Amended
		<p>commercial value. B. 3. A well drilled before September 10, 2009, in the Trinity Outcrop, Middle Trinity, or Lower Trinity Management Zones is exempt if it is registered with the District and it is: (a) A well used to satisfy the needs of five or fewer households and a person who is a member of each household is either the owner of the well, a person related to the owner or a member of the owner's household within the second degree by consanguinity, or an employee of the owner; or B. 3. A well drilled before September 10, 2009, in the Trinity Outcrop, Middle Trinity, or Lower Trinity Management Zones is exempt if it is registered with the District and it is: (b) A well used for the watering, raising, feeding, or keeping of livestock for breeding purposes or for the production of food or fiber, leather, pelts or other tangible products having a commercial value. 4. A District Drought Indicator Well; 5. A Scientific Monitor Well; 6. A Remediation Well; 7. An Injection Well; 8. A Closed Loop Geothermal Well; 9. A Dewatering Well</p>			

District	Rule	Exemption	Monitor	Meter	Date Amended
Blanco-Pedernales	<p><b>4.1.</b> (e) During hydrological studies, pump tests, or in areas designated by the Board as Critical Groundwater Depletion Areas, the Board may require production-monitoring devices to be installed on wells required to have an operating permit at the permittee's expense. These monitoring devices shall be made available for District inspection during normal business hours or during the pump tests or studies as necessary. An hour meter may be considered a production-monitoring device if the well output in gallons per minute can be calculated accurately.</p> <p><b>5.2.</b> The Board may restrict the permitted annual production amount from wells requiring an operating permit if the Board determines that scientific data clearly indicate that one or more of the following conditions exist and that the regulation of production will minimize the drawdown of the water table and/or the reduction of artesian pressure: that the District,</p>	<p><b>3.1.</b> (d) 4. A well drilled and completed solely for purposes of aquifer testing, including a test well, or for monitoring water levels or water quality. Every effort must be made to use any water produced during testing for a beneficial purpose.</p>	×		20-May-08

District	Rule	Exemption	Monitor	Meter	Date Amended
	<p>or a portion of the District, is experiencing 1. a lowering of the water table and/or a reduction in artesian pressure to such a degree that aquifer mining is occurring; 2. subsidence, interference between wells, degradation of water quality, negative impacts on historic use or retail water utilities; or 3. other adverse groundwater quantity or quality conditions.</p> <p><b>5.2.</b> (c) 4. The Board may require all permitted wells within the CGDA to be equipped with a District approved flow meter or other measuring device at the well owner's expense.</p>				
Bluebonnet	<p><b>8.12</b> (d) The permittee shall keep accurate records, on a monthly basis, of the amount of groundwater withdrawn, the purpose of the withdrawal, and, for any transporting of water outside the District, the amount of water transported and the identity and location of the recipients, and such records shall be submitted to the District office on a monthly</p>	<p><b>8.3.</b> (b) The following wells are required to be registered and to obtain approval for drilling, but are not required to have a pumpage or transport permit from the District: 2. Agricultural Wells. Agricultural wells defined by the district as: "Agricultural Well" – means a well used for agricultural activities listed under section 36.001 (19) of the Texas Water Code. Section 36.001 (19) of the Texas Water Code states: "Agriculture" means any of the following activities: (a) cultivating the soil</p>		×	15-Oct-14

District	Rule	Exemption	Monitor	Meter	Date Amended
	<p>basis...</p> <p><b>8.19.</b> (b) 1. Conditions and Requirements. A general permit is authorized for a well used in connection with hydraulic fracturing. The water well must be located on the same lease or field associated with the oil and gas well that is subject to the hydraulic fracturing. This general permit authorization does not include a water station well, which would require an individual permit. Each authorization under this general permit shall be subject to the following conditions and requirements: (b) The well permittee shall keep accurate records and meter readings, on a monthly basis of the amount of groundwater withdrawn, the purpose of the withdrawal, and such records shall be submitted to the District office on a monthly basis;</p>	<p>to produce crops for human food, animal feed, or planting seed or for the production of fibers;</p> <p>(b) the practice of floriculture, viticulture, silviculture, and horticulture, including the cultivation of plants in containers or nonsoil media, by a nursery grower;</p> <p>(c) raising, feeding, or keeping animals for breeding purposes or for the production of food or fiber, leather, pelts, or other tangible products having a commercial value;</p> <p>(d) planting cover crops, including cover crops cultivated for transplantation, or leaving land idle for the purpose of participating in any governmental program or normal crop or livestock rotation procedure;</p> <p>(e) wildlife management; and</p> <p>(f) raising or keeping equine animals.</p>			
Brazoria County	<p><b>4.1.</b> (a) Except as otherwise provided by the District Rules, each permitted well shall be equipped with a functioning water meter, meeting AWWA</p>	<p><b>3.5.</b> (a) A new or existing water well on private property that serves only a single-family dwelling used only for domestic purposes is exempt from: 2. District requirements that a meter be placed on the well.</p>		×	12-Jun-14

District	Rule	Exemption	Monitor	Meter	Date Amended
	standards for line size, pressures, and flows.	<b>3.4.1.</b> a new or existing water well on private property that serves no more than four single-family dwellings on the same property or adjoining properties and the groundwater is used only for domestic use; 2. a new or existing water well used only for agriculture; 6. wells powered by windmills or hand pumps; and 7. leachate wells, extraction wells, injection wells, relief wells, dewatering wells, and monitoring wells that produce less than 5,000 gallons per year.			
Brazos Valley	<b>8.3 (h)</b> All groundwater production from wells in the District is required to be metered, except for groundwater produced from domestic and livestock wells exempt under Rule 8.1 (a) and wells in the Brazos River Alluvium aquifer. The District maintains the discretion to require meters on wells in the Brazos River Alluvium aquifer.	<b>8.1. (a)</b> all groundwater wells in Brazos and Robertson counties used solely for domestic use or for providing water for livestock or poultry that are either drilled, completed, or equipped so that they are incapable of producing more than 50,000 gallons of groundwater per day		×	14-Aug-14
Brush Country	<b>6. (b)</b> All non-exempt wells are required to be equipped with a meter An owner or operator of a water well that is required to be registered with or permitted by the district, except for the owner or operator of a well that is exempt from	<b>14. (a)</b> The District provides an exemption from the District requirement to obtain a permit for: 4. Drilling or operating a well used for agricultural purposes, if the well is drilled, completed, or equipped so that it is incapable of annual production that does not exceed one acre-foot per contiguous		×	26-Aug-13

District	Rule	Exemption	Monitor	Meter	Date Amended
	<p>permit requirements, must record meter readings monthly and report groundwater withdrawals annually. The monthly water production records shall be submitted to the District on an annual basis on January 31st of each year for the previous 12 months...</p>	<p>surface acre owned or operated by the well owner; 5. Drilling or operating a small commercial well; 6. Drilling or operating a well used for a privately-owned small water system; 9. A water well drilled and completed solely for the purposes of aquifer testing or for monitoring water levels or water quality.</p>			
Central Texas	<p><b>11.01</b> (b) Meters are required for the following wells under these Rules: 1. an existing well that is used in whole or in part for purposes of use other than domestic, livestock, or poultry use which has the capacity, as equipped, to produce more than 50 gallons per minute; 2. an existing well connected to a well system that is used in whole or in part for purposes of use other than domestic, livestock, or poultry use and that has the aggregated capacity, as the wells in the system are equipped, to produce more than 50 gallons per minute; 3. a new well which has the capacity, as equipped, to produce 25,000 gallons per 24-hour interval or more that is used solely for domestic, livestock, or</p>	<p><b>11.01.</b> (a) Meters are not required for the following wells under these Rules: 1. an existing well which is used solely for domestic, livestock, or poultry use, regardless of the size or capacity of the well; 2. an existing well used for purposes other than domestic, livestock, or poultry use if the well does not have the capacity, as equipped, to produce more than 50 gallons per minute; 3. an existing well used for purposes other than domestic, livestock, or poultry use if the well is connected to a well system that does not have the aggregated capacity, as the wells in the system are equipped, to produce more than 50 gallons per minute; and 4. a new well which is used solely for domestic, livestock, or poultry use if the well does not have the capacity, as equipped, to produce more than 25,000 gallons of water per 24-hour</p>		×	1-Jun-14

District	Rule	Exemption	Monitor	Meter	Date Amended
	<p>poultry use; 4. a new well which has the capacity, as equipped, to produce 25,000 gallons per 24-hour interval or more that is used in whole or in part for purposes of use other than domestic, livestock, or poultry use; and 5. a well of any capacity that is involved in the transport of any groundwater for use outside of the District for any activity for which a fee that is based on the amount of groundwater transported is required to be calculated under these Rules.</p> <p><b>11.01.</b> (c) The owner of a well required to be metered under this Section shall equip the well with a flow measurement device meeting the specifications of these Rules and shall operate the meter on the well to measure the flow rate and cumulative amount of groundwater withdrawn from the well</p>	<p>interval, regardless of the size of the tract upon which the well is located.</p>			
Clearwater	<p><b>7.4</b> (e) Withdrawals from all non-exempt wells must be accurately metered or measured through a District-approved alternative measuring method. All permitted</p>	<p><b>7.4.</b> ...Wells that are drilled, completed, or equipped so that they are incapable of producing more than 25,000 gallons per day are not required to have a meter or report monthly production if used for domestic</p>			

District	Rule	Exemption	Monitor	Meter	Date Amended
	<p>wells must report their pumpage to the District monthly. If a meter is installed, the meter readings must then be provided to the District...</p> <p><b>7.5.7. Alternative Measuring Method:</b> The owner of an existing, non-exempt well may apply to the District for approval of an alternative measuring method of determining the amount of groundwater withdrawn. The District General Manager may authorize the alternative measuring method if the applicant well owner demonstrates that the alternative measuring method can accurately measure the groundwater withdrawn. Reporting shall still be required by an owner of a well who is using a District-approved alternative measuring method.</p>	<p>purposes or for watering livestock or poultry.</p> <p><b>7.5.1.</b> ...Wells in existence prior to February 1, 2002, may use an alternative measuring method approved by the District in accordance with this rule. Meters are not required to be installed on exempt wells. Meters are not required to be installed on non-exempt wells that are drilled, completed, or equipped so that they are incapable of producing more than 25,000 gallons per day if used solely for domestic purposes or for watering livestock or poultry.</p> <p><b>8.3.</b> The District's permit requirements in these rules do not apply to: (a) Drilling or operating a well used solely for domestic use or for providing water for livestock or poultry if the well is located or to be located on a tract of land 10 (ten) acres or larger and drilled, completed, or equipped so that it is incapable of producing more than 25,000 gallons of groundwater a day; provided, however, that this exemption shall also apply after March 1, 2004 to a well to be drilled, completed, or equipped on a tract of land less than 10 (ten) acres in size only if : 1. the well is to be used solely for domestic use or for providing water for livestock or poultry on the tract;</p>			

District	Rule	Exemption	Monitor	Meter	Date Amended
		<p>2. such tract was platted, meets an exception to platting, or is otherwise lawfully configured prior to March 1, 2004 as a tract less than 10 (ten) acres in size; and 3. such tract is not further subdivided into smaller tracts of land after March 1, 2004 and prior to the drilling, completion, or equipping of the well. A well qualifying for exemption under this subsection must observe a minimum distance of 50 feet from the property line (exception may be made if the property line is adjacent to a public road then the center of the road may be the measuring point used to determine the minimum setback of 50 feet per rule 11.5.5 (b) and 100 feet from other wells if producing from the same aquifer. Refer to Section 11 for spacing requirements between wells producing from different aquifers</p>			
Coastal Bend		<p><b>3.5.</b> (a) The following wells are not required to have a permit from the District: 4. a well used for domestic use or agricultural use if the well owner or well operator provides a signed statement that the well will not produce more than five million gallons (15.34 acre feet) of water per year; 5. leachate wells, extraction wells, injection wells, relief wells and dewatering wells; And 6.</p>		x	16-Jun-15

District	Rule	Exemption	Monitor	Meter	Date Amended
		<p>monitoring wells that produce less than 5,000 gallons per year.</p> <p><b>4.6.</b> (a) The following wells may be excepted from the water meter requirements at the Board’s discretion: 1. wells five inches or less in casing diameter with estimated pumpage of five million gallons per year or less and are not connected with any other well; and 2. wells in aggregate systems in which all wells are five inches or less in inside casing diameter and where the aggregate system has an estimated pumpage of five million gallons per year or less.</p>			
Coastal Plains	<p><b>4.1.</b> (a) Except as provided in Subsection (b) of this section, each permitted well shall be equipped with a functioning water meter, meeting AWWA standards for line size, pressures, and flows. (c) Well owner or well operator of a well exempt from permitting under Section 3.5 (a) 3. shall equip the well with a meter meeting the specifications of this chapter and shall record monthly water use and report annually to the District: 1. the total amount of water withdrawn during a month; 2. the quantity of</p>	<p><b>4.1.</b> (b) Wells drilled prior to January 1, 2013 and permitted for agricultural use may use an alternative measuring method or device as authorized and approved by the District.</p> <p><b>4.6.</b> (a) The following wells may be excepted from the water meter requirements at the Board’s discretion: 1. wells five inches or less in casing diameter with estimated pumpage of five million gallons per year or less and are not connected with any other well; and 2. wells in aggregate systems in which all wells are five inches or less in inside casing diameter and where the aggregate system has an estimated pumpage of five million gallons per year or less.</p> <p>(b) If evidence is presented to the Board that indicates that the</p>		×	29-Jun-12

District	Rule	Exemption	Monitor	Meter	Date Amended
	water necessary for mining activities; and 3. the quantity of water withdrawn for other purposes.	well or wells do not meet the casing diameter or pumpage requirements of these exceptions, or where there is no reasonable basis for determining the pumpage (such as wells serving ponds, irrigation, landscaping, or car washes), the Board may require that water meters be installed within a specified time period.			
Colorado County	<p><b>5.1.1.</b> (a) Equipment – All permitted wells except those exempted in rule 5.1.2 below or granted an exception by the Board, shall be equipped with a functioning water meter, meeting American Water Works Association (AWWA) standards for line size, pressures, and flows. Failure to equip a well with a functioning water meter is a violation of these rules and subjects the well owner or operator to civil penalty as stated in Section 36.102 of the Texas Water Code and Chapter 9 of these Rules.</p>	<p><b>3.22.</b> (b) Domestic Usage – All wells with casing equal to or less than five (5) inches in diameter and that are used solely for domestic purposes are exempt from requiring a permit. For domestic use wells with greater than five inch diameter casing, the well is exempt from requiring a permit as long as it is not capable of producing more than 50,000 gpd (34.7 gpm).</p> <p><b>5.1.2.</b> (a) Class A and B Wells – Non-exempt wells designated as Class A or B do not require a meter unless the Board has sufficient cause to require one.</p> <p><b>3.3.1.</b> (a) i. Operating Permit Class A – Any well that has a maximum pumping rate of 200 gpm or less will require an operating permit of this class. The General Manager will have full authority to grant or deny these permit applications. ii. Operating Permit Class B – Any well that is capable of pumping more than 200 gpm but less than 600 gpm will require an</p>		×	15-Sep-10

District	Rule	Exemption	Monitor	Meter	Date Amended
		<p>operating permit of this class. Authority to grant or deny these permit applications lies with the Board of Directors. Action on an operating permit of this class must be included as an agenda item and posted as part of the Notice of Open Meeting of the CCGCD Board of Directors. Any applicant or affected party may appeal the Board's ruling by filing, within twenty (20) calendar days of the ruling, a written request for hearing. The District will issue written notice indicating a date and time for a hearing on the application in accordance with the Rules as set forth in Chapter 8 (b) Aggregate Wells – An exception may be granted at the Board's discretion to wells in an aggregate system in which all wells are six (6) inches or less in inside casing diameter.</p>			
Crockett County	<p><b>2.8.</b> All non-exempt wells must be equipped with production monitoring devices approved by the district and available for inspection by the district at any time during normal business hours. An hour meter may be considered a production monitoring device on the well if the well output in gallons per minute (GPM) can be accurately determined.</p>	<p><b>2.2.</b> (a) The following wells must be registered, but are exempt from permitting and are considered exempt wells. A permit is not required to drill or produce groundwater from the following wells, so long as the well complies with District Spacing Rules: 1. A well used solely for domestic use or for providing water for livestock or poultry on a tract of land larger than 75 acres that is either drilled, completed, or equipped so that it is incapable of</p>	x		1-Jul-13

District	Rule	Exemption	Monitor	Meter	Date Amended
		producing more than 25,000 gallons of groundwater a day; 4. Test wells for geophysical, environmental investigation or purposes exempted by the laws of the State of Texas			
Edwards Aquifer Authority	<p><b>711.400.</b> (a) Except as provided in Subsection (b), this subchapter applies to the owner of any well that withdraws groundwater from the Aquifer. (b) This subchapter does not apply to owner of the following wells: 1. exempt wells; or 2. monitoring wells.</p> <p><b>711.402.</b> (a) Owners of permitted wells and metered limited production wells under § 711.68 shall install, and, if necessary, modify a meter that meets the specifications in § 711.408 to measure the flow rate and cumulative amount of groundwater withdrawn from the well. (b) A meter shall be installed by the owner of a well no later than July 17, 2001, or for wells constructed after that date, prior to commencement of withdrawals from the well. This deadline does not apply to meters</p>	<p><b>711.416.</b> Persons may seek to employ an alternative measuring method instead of installing a meter 711.20 (a) A well qualifies for exempt well status if it is: 1. capable of producing no more than 25,000 gallons of water a day; 2. used solely for domestic or livestock use; and 3. not serving a subdivision requiring platting; or 4. located on and operated by, or for the benefit of, a federal facility, and prior to September 1, 2003, the Authority has not approved the transfer of ownership of an application for an initial regular permit related to the well from the federal facility to another person.</p>	×	×	19-Dec-14

District	Rule	Exemption	Monitor	Meter	Date Amended
	installed by the Authority.				
Evergreen	<b>5.12. and 6.0. (b) Monitoring Devices:</b> All production facilities or wells subject to the requirements of this Subsection [permitting requirements] shall be equipped with production monitoring devices approved by the District and available for District inspection at any time during normal business hours. An hour meter may be considered as a production monitoring device on the well, if the well output (gpm) can be accurately determined.	<b>5.3. [Exempts:]</b> (a) Wells used to produce water for exempt purposes are not required to obtain a well drilling permit or an operating permit. "Exempt purposes" means water to be used by an individual, a family, or household for: 1. Drinking water and cooking; 2. washing; 3. Irrigating a garden or orchard, if the produce of the garden or orchard is to be consumed by the individual, family, or household; 4. Watering animals used in operating a farm or animals being raised as food for the individual, household or family; and	x		23-Jan-09
Fayette County	<b>9.3.3.</b> Withdrawals from all non-exempt wells must be measured by the owner or operator using a meter that is within plus or minus 10% of accuracy. Measured water use shall be reported to the District annually in January. The Board may require monitoring devices on permitted wells which would be available for	<b>6.2. (a) Exempt Wells</b> that require registration prior to drilling are: 1. a well that does not produce more than 25,000 gallons of groundwater a day;	x	x	8-Sep-14

District	Rule	Exemption	Monitor	Meter	Date Amended
	District inspection during business hours <b>9.9.</b> (b) All wells in the District that produce more than 25,000 gallons per day shall be metered or accurately measured by a District-approved meter, as required in Rule 9.3.3.				
Fort Bend Subsidence District	<b>8.1.</b> Except as provided in Rule 8.2., a water meter is required for all permitted wells.	<b>5.7</b> Exemptions and Exclusions (a) Single-Family Small Wells Excluded: A well with a casing diameter of five inches nominal or less that primarily serves a single-family dwelling is excluded from the permit requirements of these rules. (b) Single Commercial Wells: The permit requirements do not apply to persons owning only one commercial well within the District with an inside casing diameter of five inches nominal or less. (c) Exemptions: The permit requirements do not apply to: (i) windmills serving a well with a casing diameter of five inches nominal or less, (ii) monitoring wells, (iii) leachate wells, or (iv) dewatering wells. <b>8.2.</b> (a) The following exceptions from the water meter requirements may be authorized by the District at its discretion: 1. Wells five inches nominal or less in inside casing diameter with estimated pumpage of five million gallons per year or less that are not		×	1-Jan-09

District	Rule	Exemption	Monitor	Meter	Date Amended
		<p>connected with any other well.</p> <p>2. Wells in aggregate or interconnected systems in which all wells are five inches nominal or less in inside casing diameter and where the aggregate or interconnected system has an estimated pumpage of five million gallons per year or less. (b) If evidence is presented at a hearing indicating the well or wells do not meet the casing diameter, pumpage or purpose requirements of these exceptions, or where there is no reasonable basis for determining the pumpage, the Board may require water meters to be installed within a specified time period. In addition, verification of well size may be required in accordance with Rule 8.3.</p>			
Harris-Galveston Subsidence District	<p><b>8.1.</b> Except as provided in Rule 8.2., a water meter is required for all permitted wells and at the point of connection for all alternative water supplies used to meet District regulatory requirements.</p>	<p><b>5.7. Exemptions and Exclusions</b></p> <p>(a) Single-Family Small Wells Excluded: A well with a casing diameter of five inches nominal or less that primarily serves a single-family dwelling is excluded from the permit requirements of these rules. (b) Single Commercial Wells: The permit requirements do not apply to persons owning only one commercial well within the District with an inside casing diameter of five inches nominal or less. (c) Exemptions: The permit requirements do not</p>		×	11-Sep-13

District	Rule	Exemption	Monitor	Meter	Date Amended
		<p>apply to: (i) windmills serving a well with a casing diameter of five inches nominal or less, (ii) monitoring wells, (iii) leachate wells, or (iv) dewatering wells.</p> <p><b>8.2.</b> (a) The following exceptions from the water meter requirements may be authorized by the District at its discretion: 1. Wells five inches nominal or less in inside casing diameter with estimated pumpage of five million gallons per year or less that are not connected with any other well. 2. Wells in aggregate or interconnected systems in which all wells are five inches nominal or less in inside casing diameter and where the aggregate or interconnected system has an estimated pumpage of five million gallons per year or less. (b) If evidence is presented at a hearing indicating the well or wells do not meet the casing diameter, pumpage or purpose requirements of these exceptions, or where there is no reasonable basis for determining the pumpage, the Board may require water meters to be installed within a specified time period. In addition, verification of well size may be required in accordance with Rule 8.3.</p>			

District	Rule	Exemption	Monitor	Meter	Date Amended
Hays Trinity	<p><b>4.1.6.</b> All wells, both new and existing, that withdraw groundwater for non-exempt uses shall be instrumented with a totalizing water meter. Meters with reset capabilities must have that particular function disabled.</p> <p><b>4.2.4.</b> During hydrological studies or pumping tests, calibrated production-monitoring devices shall be installed on wells at the expense of the permittee. The production-monitoring devices shall measure both instantaneous flow rate and cumulative volume pumped. These monitoring devices shall be made available for District inspection during normal business hours or during the pumping tests or studies as necessary</p>	<p><b>3.11.1.</b> New wells exempted from obtaining an operating permit must comply with District Rules and all State and District well construction requirements. The following wells are not required to obtain an operating permit as the use is considered exempt: (a) Domestic / Residential: A well used solely for domestic use by a single private residential household if the well is drilled, completed, or equipped so that its production capability does not exceed 25,000 gallons per day (17.36 gallons per minute). (b) Agricultural: A well used solely for conventional farming and ranching activities, including such intensive operations as aquaculture, livestock feedlots, or poultry operations. Landscape irrigation such as sport fields are not considered agricultural use. (c) A well used solely for dewatering and monitoring in the production of coal or lignite. (f) A monitoring well, remediation well, injection well, or construction dewatering well. (g) A well or wells drilled used solely as geoexchange wells for earth-coupled heat exchange purposes. The well must comply with Rule 3.12. A geoexchange well may not produce groundwater and must be of a “closed loop” design.</p>		x	1-Sep-13

District	Rule	Exemption	Monitor	Meter	Date Amended
Headwaters	<p><b>7.</b> (l) All Wells requiring a Production/Operating Permit must place a Monitoring Device on the Well/system to monitor the annual production....</p>	<p><b>1.</b> (u) "Exempt Well" means: 1. a well used solely for Domestic Use or for providing Groundwater for livestock or poultry if the Well is: (a) located or to be located on a tract of land larger than five (5) acres; and (b) drilled, completed, or equipped so that it is incapable of producing more than 25,000 gallons of Groundwater a day;</p> <p><b>4.</b> (c) Exempt Wells must comply with Rule 13 regarding drilling and Well construction, including Rule 13.D regarding water quality analysis; however, no Monitoring Device or metering of production is required for Domestic Use or livestock/poultry use Exempt Wells for as long as such Wells maintain their status as Exempt Wells.</p>	x		12-Feb-14
Hickory	<p><b>8.7.</b> B. Monitoring: All permitted wells shall be equipped with a flow monitoring device approved by the District and available for District inspection.</p> <p><b>13.8.1.</b> All permitted transportation facilities shall be equipped with flow monitoring devices approved by the District and shall be available at all reasonable times for inspection by District personnel,</p>	<p><b>8.2.</b> C. In addition to the exceptions required by law in Texas Water Code, Section 36.117 (b) stated above, the District also exempts from the requirement of a permit a well on a lot ten (10) acres or less in size if there shall be only one well per lot and (a) that well is used to supply groundwater to no more than four households solely for domestic use and (b) a member of each household shall either be the owner of the well, a person related to the owner or a member of the owner's household within the second</p>	x		No date listed

District	Rule	Exemption	Monitor	Meter	Date Amended
		degree by consanguinity or affinity, or an employee of the owner. Wells exempted by the provisions of this subsection C are required to be registered pursuant to Rule 7 and are subject to the regulations of Rule 9. Rule 9 contains regulations regarding well spacing.			
Kenedy County	<p><b>5.2.</b> The production from all Wells required under Rule 3.4 to obtain an Operating Permit shall be recorded using a totalizing flow meter or other reliable water measuring device, installed at the Well Owner's expense...</p> <p><b>5.4.</b> (a) The production from all Wells Exempted under Rules 3.1. (a) 2. and 3. from obtaining an Operating Permit (Exempt Oil and Gas Water Supply Wells) shall be recorded using a meter or other reliable water measuring device.</p>	<p><b>3.1.</b> (a) Wells Exempt From Obtaining an Operating Permit (Exempt Wells) 1. A well used solely for Domestic or Livestock Use unless the Well will be used to supply water for a subdivision of land for which a plat approval is required by Chapter 232, Local Government Code. 6. A Well drilled and Completed solely for purposes of aquifer testing, including a Test Well, or for monitoring water levels or water quality.</p>	x	x	25-Jul-12
Llano-Estacado	<p><b>7.1.</b> (a) A well or well system may only be permitted to be drilled and/or equipped for the production of a cumulative total of 10 gallons per minute per contiguous acre owned. (c) In the event an existing well or well system is</p>	<p><b>5.2.</b> Permitting requirements do not apply to: (b) A well used to supply the domestic needs of 10 or fewer households if each of the households is for the well owner, a person related to the well owner within the second degree on consanguinity, or an employee of the well owner;</p>		x	No date listed

District	Rule	Exemption	Monitor	Meter	Date Amended
	<p>located on property where a permit to drill a new well has been applied for, said cumulative gallonage per acre owned or operated shall be computed by District personnel of the existing well or well system. The District shall note on the application the maximum rate at which the new well can be operated if all existing wells are operated at the reported rate. At the discretion of District personnel, the actual rate of water produced will be calculated using a flow meter to measure the gallons per minute the well or well system is producing during normal operations.</p>				
Lone Star	<p><b>11.1.</b> (a) Except as provided in Rule 11.2, the owner of a registered or permitted well located in the District shall equip the well with a flow measurement device meeting the specifications of these Rules and shall operate the meter on the well to measure the flow rate and cumulative amount of groundwater withdrawn from the well. Except as provided in Rule</p>	<p><b>3.8</b> (a) The permitting, metering, and fee requirements of these Rules do not apply to:  1. wells, including replacement wells, completed on or after April 14, 2009, a well with an inside casing diameter of five inches (5") or less to be used solely for domestic use or livestock use, regardless of the tract size on which the well is drilled  2. a well that was completed on or before April 14, 2009, and equipped so that it is incapable of producing more</p>	x		12-Nov-13

District	Rule	Exemption	Monitor	Meter	Date Amended
	11.2, the owner of an existing well that is located in the District shall install a meter on the well prior to producing groundwater from the well after December 31, 2002.	<p>than 25,000 gallons of groundwater a day and that is used solely for domestic use, livestock use or poultry use, regardless of tract size, so long as the well or water use is not subsequently altered so that it no longer qualifies under this exemption; 3. a well completed after April 14, 2009, that is incapable of producing more than 25,000 gallons of groundwater a day and that is used solely for domestic use, livestock use or poultry use on a tract of land larger than ten acres; a well to the extent the withdrawals are required for mining activities regardless of any subsequent use of the water; 6. for wells completed before April 14, 2009, a well to be used solely for domestic use or livestock use with the capacity to produce more than 25,000 gallons of water per day that will produce a total of less than 9,125,000 gallons of water per year; or 7. leachate wells, monitoring wells, and dewatering wells.</p> <p><b>11.2.</b> (b) Following notice and hearing, the Board may grant an exception from the water meter requirements of these Rules for a non-exempt well with a column pipe inside diameter of one inch or less.</p>			
Lost Pines	<b>5.3.</b> B. All Operating Permits are granted	<b>3.1.</b> A. 1. A water well completed before January 1,	x		No date listed

District	Rule	Exemption	Monitor	Meter	Date Amended
	<p>subject to the District Rules, the orders of the Board, the District Management Plan, and Chapter 36 of the Texas Water Code. In addition to any well-specific permit provisions and special conditions included in the Operating Permit, each Operating Permit includes the following standard permit provisions: 3. Water produced from the well must be measured using a water measuring device or method approved by the District that is within plus or minus 10% of accuracy.</p>	<p>2013, that is used solely for Domestic Use or for Livestock Use is exempt from obtaining an Operating Permit under Section 5 of these Rules if the well is drilled, completed, or equipped so that it is incapable of producing more than 25,000 gallons of groundwater a day. 2. A water well completed after January 1, 2013, that is used solely for Domestic Use or Livestock Use is exempt from obtaining an Operating Permit under Section 5 of these Rules if the well is: (a) located or to be located on a tract of land larger than two 2. acres; and (b) drilled, completed, or equipped so that it is incapable of producing more than 25,000 gallons of groundwater a day. E. A water well drilled and completed solely for purposes of aquifer testing, including a test well or a well for monitoring water levels or water quality, is exempt from obtaining an Operating Permit under Section 5 of these Rules. B. Agricultural well. A water well that uses less than 200 acre-feet of water per year solely for Agricultural Use is exempt from obtaining an Operating Permit under Section 5 of these Rules.</p>			
Lower Trinity	<b>3.8.</b> (d) Withdrawals from all non-exempt wells must be accurately metered and their pumpage	<b>1.1.</b> (v) "Exempt Well" shall mean any well for which the District is prohibited to require a permit under the District Act,		x	9-Jan-09

District	Rule	Exemption	Monitor	Meter	Date Amended
	reported to the District quarterly.	<p>Texas Water Code §36.117 or the District Rules. Exempt wells include wells used solely for domestic or Agricultural use or for providing water for livestock or poultry. Wells to supply water for a subdivision of land for which plat approval is required by law or regulation are not exempt. For all purposes herein, an Exempt Well shall be exempt from permitting requirements and production fees but shall not be exempt from pre-registration or registration requirements.</p> <p><b>3.5.</b> Any existing operational well not exempt under Rule 1.1 (v), in existence prior to effective date of these Rules (officially adopted January 9, 2009) is considered grandfathered and will automatically be granted an operating permit upon completion of the well registration procedure as provided in Rule 13. These grandfathered wells will not be assessed a registration or permit fee if the procedure is completed by December 31 , 2008 and the owner or operator provides all the information requested by the District relating to matters within the District's powers. The volume allowed by the permit will be determined by past or planned production of the well. .</p>			

District	Rule	Exemption	Monitor	Meter	Date Amended
McMullen	<p><b>15.</b> (a) All groundwater production that has the capability of producing more than 25,000 gallons per day shall be metered or accurately measured by a District-approved method.</p>	<p><b>1.14.</b> "Exempt Well" means any artificial excavation constructed, fitted or equipped to produce less than 25,000 gallons of water per day. Exempt Wells must be registered in accordance with these rules but are otherwise exempt from any other requirements for obtaining permits, installing meters, or reporting usage.</p>	×	×	26-Sep-12
Mid-East Texas	<p><b>3.2.</b> The production from all wells required under Rule 8.2 to obtain an operating permit must be metered using a device or an approved method that is within plus or minus 5% of accuracy, installed at the well owner's expense. The well owner shall keep a record of monthly water production. Calendar year annual water use shall be reported to the District prior to April 1st of the following year, unless the District imposes alternate recordkeeping and reporting requirements in the operating permit for the well.</p> <p><b>8.2. 1.</b> All existing non-exempt wells, as defined in Rule 2, shall obtain an operating permit as described in this Rule 8.2.A</p>	<p><b>3.6.</b> ....Exceptions to this requirement [metering] may be granted through the variance process as long as the well owner can demonstrate an alternate method of determining and recording monthly water production.</p> <p><b>8.9.</b> (d) A well drilled and completed solely for purposes of aquifer testing, including a test well, or for monitoring water levels or water quality, as long as the well is used solely for those purposes. (e) A well whose production is used wholly or substantially wholly for growing plants in a greenhouse operation or in a water conservation drip irrigation system in which the water is distributed to the plant in a closed (piped) system and is applied directly to the soil or growing medium at the plant. (f) A well that would otherwise be considered a commercial well if:</p> <p>1. the water is used solely for domestic purposes as defined in</p>	×	×	17-Dec-13

District	Rule	Exemption	Monitor	Meter	Date Amended
		Rule 2, and 2. the well is drilled, completed, or equipped so that it is incapable of producing more than 35 gallons of groundwater per minute.			
Neches and Trinity valleys	<b>3.8. (d) 1.</b> Withdrawals from all non-exempt wells, except wells used for Domestic or agricultural capable of providing more than 25,000 gallons per day but less than 100,000 gallons per day, must be accurately metered and their pumpage reported to the District quarterly.	<b>3.8. (d) 1.</b> Withdrawals from all non-exempt wells, except wells used for Domestic or agricultural capable of providing more than 25,000 gallons per day but less than 100,000 gallons per day, must be accurately metered and their pumpage reported to the District quarterly.		×	10-May-07
North Plains	<b>3.1.</b> Water Right Owners shall install a flow Meter or use an Alternative Metering System and report Annual Water production to the District.	<b>3.5. E.</b> An Owner may use an Alternative Metering System or a central collection point to report groundwater withdrawals from a Property until the Owner applies for a Permit to construct a Well or amend an existing Well Permit on the Property. At that time, the Owner must install meters at the pump on all Wells on the Property within 150 days after the Permit or amended Permit <b>23.1. (A)</b> Any Applicant desiring an exception to any Rule shall file a written application under oath with the District at its principal office stating: 1. the nature of the exception requested; and 2. the Rule number(s) and Paragraph(s) or sub-paragraph(s); and	×	×	14-Jul-14

District	Rule	Exemption	Monitor	Meter	Date Amended
		<p>3. the justification for granting the exception; and</p> <p>4. any information that the Applicant deems appropriate in support of the application.</p>			
North Texas	<p><b>6.1.</b> (a) A person who produces or wishes to produce water from a well not exempt under Rule 2.1. (a) that is located or is to be located within the District and transport such water for use outside of the District must register the well and submit timely payment of the Groundwater Transport Fee to the District under Rule 7.2. for any water transported out of the District. The District may require the person to install any meters necessary to report the total amount of groundwater transported outside of the District for reporting purposes and for purposes of calculating the Groundwater Transport Fee.</p> <p><b>8.1.</b> (a) Except as provided in Rule 8.2, the owner of a well located in the District and not exempt under Rule 2.1 shall equip the well with a flow measurement device meeting the specifications</p>	<p><b>2.1.</b> (a) The requirements of these Temporary Rules relating to the payment of fees under Section 7, the requirement to install and maintain a meter under Section 8, and the requirement to report to the District the amount of water produced from a well under Section 3 do not apply to the following types of wells: 1. All wells, existing or new, of any size or capacity used solely for domestic use, livestock use, or poultry use; 2. An existing well or new well that does not have the capacity, as equipped, to produce more than 25 gallons per minute and is used in whole or in part for commercial, industrial, municipal, manufacturing, or public water supply use, use for oil or gas or other hydrocarbon exploration or production, or any other purpose of use other than solely for domestic, livestock, or poultry use, except as provided by Subsection (b) of this rule; or 3. Leachate wells, monitoring wells, and piezometers.</p> <p><b>2.8.</b> Groundwater produced from a well during its development or rehabilitation, including groundwater used in</p>	x		12-Aug-14

District	Rule	Exemption	Monitor	Meter	Date Amended
	<p>of these rules and shall operate the meter on the well to measure the flow rate and cumulative amount of groundwater withdrawn from the well. Except as provided in Rule 8.2, the owner of an existing well not exempt under Rule 2.1 that is located in the District shall install a meter on the well in compliance with the requirements herein prior to producing groundwater from the well after July 1, 2011.</p>	<p>pump tests, is exempt from the requirements relating to the payment of fees under Section 7, the requirement to install and maintain a meter under Section 8, and the requirement to report to the District the amount of water produced from a well under Section 3. However, use of the well must comply with those requirements before being placed into operation unless otherwise exempt under these rules.</p>			
Northern Trinity	<p><b>6.1.</b> (a) A person who produces or wishes to produce water from a well not exempt under Rule 2.1. (a) that is located or is to be located within the District and transport such water for use outside of the District must register the well and submit timely payment of the Groundwater Transport Fee to the District under Rule 7.2. for any water transported out of the District. The District may require the person to install any meters necessary to report the total amount of groundwater transported outside of the District for reporting</p>	<p><b>2.1.</b> (a) The requirements of these Temporary Rules relating to the payment of fees under Section 7, the requirement to install and maintain a meter under Section 8, and the requirement to report to the District the amount of water produced from a well under Section 3 do not apply to the following types of wells: 1. All wells, existing or new, of any size or capacity used solely for domestic use, livestock use, or poultry use; 2. An existing well or new well that does not have the capacity, as equipped, to produce more than 25 gallons per minute and is used in whole or in part for commercial, industrial, municipal, manufacturing, or public water supply use, use for oil or gas or</p>	x		11-Mar-10

District	Rule	Exemption	Monitor	Meter	Date Amended
	<p>purposes and for purposes of calculating the Groundwater Transport Fee.</p> <p><b>8.1.</b> (a) Except as provided in Rule 8.2, the owner of a well located in the District and not exempt under Rule 2.1 shall equip the well with a flow measurement device meeting the specifications of these rules and shall operate the meter on the well to measure the flow rate and cumulative amount of groundwater withdrawn from the well. Except as provided in Rule 8.2, the owner of an existing well not exempt under Rule 2.1 that is located in the District shall install a meter on the well in compliance with the requirements herein prior to producing groundwater from the well after July 1, 2011.</p>	<p>other hydrocarbon exploration or production, or any other purpose of use other than solely for domestic, livestock, or poultry use, except as provided by Subsection (b) of this rule; or</p> <p>3. Leachate wells, monitoring wells, and piezometers.</p> <p><b>2.8.</b> Groundwater produced from a well during its development or rehabilitation, including groundwater used in pump tests, is exempt from the requirements relating to the payment of fees under Section 7, the requirement to install and maintain a meter under Section 8, and the requirement to report to the District the amount of water produced from a well under Section 3. However, use of the well must comply with those requirements before being placed into operation unless otherwise exempt under these rules.</p>			
Panhandle	<p><b>4.4.</b> (c) All wells drilled after May 26, 2004, that are equipped with a 4 inch or larger column pipe diameter shall be required to install an approved flow meter. These wells must be constructed with a sufficient clear run of 10 pipe diameters upstream</p>	None.	x	x	18-Mar-14

District	Rule	Exemption	Monitor	Meter	Date Amended
	<p>and 5 pipe diameters downstream of the meter, or in a sufficient manner to meet the installation specifications of the chosen approved meter. This rule applies to all wells including water wells used for oil and gas exploration or production purposes.</p> <p><b>6.3.</b> All production facilities or wells registered to transport groundwater shall be equipped with flow monitoring devices approved by the District and available for District inspection at any time, during normal business hours.</p> <p><b>15.3.</b> (c) When the Board delineates a Conservation Area, the Board may: 1. require metering devices within 120 days after the Board has delineated the Conservation Area. All owners or operators of wells capable of producing 25,000 gallons or more per day within the Conservation Area must install a District approved meter or measuring device at the owner’s expense.</p>				
Panola County	<b>1.1.</b> (pp) “Non-exempt well” means an existing or	<b>3.5.3</b> a well which meets all of the following requirements [is	x	x	23-Oct-12

District	Rule	Exemption	Monitor	Meter	Date Amended
	<p>a new well that does not qualify for exempt well status under the laws of this State or these Rules.</p> <p><b>6.1.</b> (a) The owner of the following wells shall equip the well with a meter or a flow measurement device meeting the specifications of these Rules and shall operate the meter or flow meter on the well to measure the flow rate and cumulative amount of groundwater withdrawn from the well:</p> <p>1. a well which produces water that is sold or leased to another person or entity; 2. all new, non-exempt wells and existing wells that have been substantially altered, as that term is defined in Rule 1.1; and 3. a well described by Rules 3.5(a) 4. &amp; (a) 5.</p>	<p>exempt]: (A) provides water for agricultural irrigation use, as that term is defined in Rule 1.1; (B) that is located or to be located on a tract of land of 5 acres or less; and (C) that is drilled, completed, or equipped so that it is incapable of producing more than 25,000 gallons of groundwater a day.</p>			
Pecan Valley	<p><b>6.2.5.</b> Withdrawals from all non-exempt wells must be measured or estimated by the owner or operator using a device or method that is within plus or minus 10% of accuracy. Measured water use shall be reported to the District on a quarterly basis using the District's quarterly water user form, Grandfathered</p>	<p><b>6.4.1.</b> Wells used solely for domestic use or for providing water for livestock, or poultry completed with casing with an inside diameter of five inches (5.0") or smaller or equipped such that it is incapable of producing more than 43,200 (30 gpm) gallons of groundwater per day 3. Wells that were fully completed before February 16, 2004 (Grandfathered wells which the intended use and</p>	x		15-Oct-13

District	Rule	Exemption	Monitor	Meter	Date Amended
	wells are not subject to these fees.	production amount has not changed.) [are exempt from permitting requirements].			
Piney Woods	<b>3.8.</b> (d) Withdrawals from all non-exempt wells and wells exempt pursuant to Rule 1.1 (u) shall be accurately metered and the quantity of groundwater produced shall be reported to the District quarterly...	<b>3.8.</b> ...Wells used for Domestic or agricultural purposes capable of providing more than 25,000 gallons per day but less than 100,000 gallons per day are not required to be metered or report production.		x	13-Jan-11
Plateau	<b>7.</b> (d) The District may require permit holders to supply electrical records to verify the amount of water produced annually. The District also reserves the right to require the permit holder to install a water metering device as part the of the permit specifications. This right may be exercised at the time of permit application or any time during the term of the permit. When a water metering device installation is required the time period of metering will also be established. <b>27.</b> II. (b) All transporting facilities for wells subject to the requirements of this Subsection shall be equipped with flow monitoring devices approved by the District and available for District inspection at any time.	None.	x		17-May-12

District	Rule	Exemption	Monitor	Meter	Date Amended
Plum Creek	<p><b>11.</b> (a) The following requirements shall apply to all new wells permitted by the District, whether permitted for testing purposes, for production, or for operation: 4. Totalizing flow meters for Tier II wells; for all other wells permitted by the District either totalizing flow meters, correlated Kw hours for each well or some other acceptable measurement means shall be installed. 1. "Tier I Well" means a well other than one producing groundwater for municipal use that has an annual pumping limit of 300 acre feet or less. "Tier II Well" means any well not a Tier I well</p> <p><b>28.</b> (b) 13. All Transportation Facilities shall be equipped with flow monitoring devices approved by the District and shall be available at all reasonable times for inspection by District personnel. The operator of a Transportation Facility shall be required to keep records and make quarterly reports to the District as to the operation of the transportation facility,</p>	<p>10. B. Domestic Use Wells 1. A well used solely for domestic use is exempt from the need to obtain a permit from the District as long as all the requirements of paragraph 10.B of these Rules are met. 2. Any domestic use well producing water from any formation in the District must be drilled, completed and equipped so that it is incapable of producing, more than 25,000 gallons of groundwater per day.</p>	x	x	29-Dec-09

District	Rule	Exemption	Monitor	Meter	Date Amended
	including the volume of water transported during the preceding quarter.				
Post Oak Savannah	<p><b>11.1.</b> Except for wells specifically exempt under State law from metering requirements, or wells exempt under Rule 7.10. 1. (a), Rule 7.10.2. (a), all wells shall obtain and install a metering or measuring device under this Section 11. Wells exempt under Rule 7.10. 2. (b) or (c), or Rule 7.10. 3. shall have a metering device as necessary to comply with reporting requirements provided by State law. If a well is no longer exempt by State law or these rules, or such well is required by Chapter 36, Texas Water Code or these rules to pay a water use or transport fee for any subsequent use of groundwater withdrawn from such well, a meter or other approved metering device is required.</p>	<p><b>7.10.1.</b> (a) Wells exempted by local rule: i. A well that was in use prior to the effective date, that is used solely for domestic use, and that was drilled, completed, or equipped so that it is incapable of producing more than 25,000 gallons of groundwater per day is an exempt well. ii. A well that, after the effective date is drilled in full compliance with these rules, that is used solely for domestic use and that is completed, equipped and maintained so that it is incapable of producing more than 25,000 gallons of groundwater per day, shall be an exempt well from and after the completion.</p>	×	×	8-Jun-04 Reviewed Feb-2014
Prairie Lands	<p><b>8.1.</b> (a) Except as provided in Rule 8.2, the owner of a well located in the District and not exempt under Rule 2.1 shall equip the well with a flow measurement device meeting the specifications</p>	<p><b>2.1.</b> (a) The requirements of these Temporary Rules relating to the requirement to install and maintain a meter under Section 8: 1. All wells, existing or new, of any size or capacity used solely for domestic use, livestock use, poultry use, or agricultural use;</p>	×		27-Jan-14

District	Rule	Exemption	Monitor	Meter	Date Amended
	<p>of these Rules and shall operate the meter on the well to measure the flow rate and cumulative amount of groundwater withdrawn from the well. Except as provided in Rule 8.2, the owner of an existing well not exempt under Rule 2.1 that is located in the District shall install a meter on the well prior to producing groundwater from the well after July 1, 2011.</p>	<p>2. An existing well or new well that does not have the capacity, as equipped, to produce more than 25 gallons per minute and is used in whole or in part for commercial, industrial, municipal, manufacturing, or public water supply use, use for oil or gas or other hydrocarbon exploration or production, or any other purpose of use other than solely for domestic, livestock, poultry, or agricultural use, except as provided by Subsection (b) of this rule; or 3. Leachate wells, monitoring wells, and piezometers.</p> <p><b>2.4.</b> Groundwater produced from a well during its development or rehabilitation, including groundwater used in pump tests, is exempt from the... the requirement to install and maintain a meter under Section 8. However, use of the well must comply with those requirements before being placed into operation unless otherwise exempt under these rules.</p>			
Presidio County	<p><b>8.1.</b> The permit holder is responsible for measuring the withdrawal of groundwater from each nonexempt well by meter or an alternative measuring method approved by the District in accordance with this section.</p>	<p><b>5.6.</b> (a) The District’s permitting requirements and meter requirements do not apply to: 4. Monitoring wells and leachate wells.</p>	×	×	17-Dec-12

District	Rule	Exemption	Monitor	Meter	Date Amended
Real-Edwards	<p><b>5.3.</b> (i) Monitoring Devices. All production facilities or wells subject to the requirements of this Subsection [requiring permits] shall be equipped with production monitoring devices approved by the District and available for District inspection at any time during normal business hours, which devices must be accurate within plus or minus 10%. An hour meter may be considered as a production monitoring device on the well, if the well output (g.p.m.) can be accurately determined.</p> <p><b>9.5.</b> (a) All groundwater transportation facilities subject to registration or permitting shall be equipped with flow monitoring devices approved by the District and shall be available at all reasonable times for inspection by District personnel.</p>	<p><b>5.5.</b> (c) In addition to the exceptions required by law in Texas Water Code, Section 36.117 and by Section 5.2(A) and (B) of these Rules, the District also exempts from requiring a permit for drilling or producing from a well on lot sizes of ten (10) acres or fewer insofar as there shall be only one well per lot that is either drilled, completed or equipped so that it is incapable of producing more than 25,000 gallons of groundwater a day (36.117(b) 1)) and the well is used to supply groundwater for five or fewer households if each of the households is for the well owner, a person related to the well owner within the second degree of affinity or consanguinity, or an employee of the well owner and the water is for Domestic Use only.</p>	×		22-Sep-04
Red River	<p><b>8.1.</b> (a) Except as provided in Rule 8.2, the owner of a well located in the District and not exempt under Rule 2.1 shall equip the well with a flow measurement device meeting the specifications</p>	<p><b>2.1.</b> (a) The requirements of these Temporary Rules relating to the requirement to install and maintain a meter under Section 8 do not apply to the following types of wells: 1. A well used solely for domestic use. 2. An existing well or new well that</p>	×		15-May-14

District	Rule	Exemption	Monitor	Meter	Date Amended
	<p>of these Rules and shall operate the meter on the well to measure the flow rate and cumulative amount of groundwater withdrawn from the well. All meters that are existing at the time of the Effective Date of these rules, and at a minimum have the ability to measure the cumulative amount of groundwater withdrawn from the well, shall be considered existing and will not have to be replaced with meters that can also measure the flow rate, provided that the meter meets all other requirements herein. Except as provided in Rule 8.2, the owner of a new or existing well not exempt under Rule 2.1 that is located in the District shall install a meter on the well in compliance with the requirements herein prior to producing groundwater from the well on or after July 1, 2012.</p>	<p>does not have the capacity, as equipped, to produce more than 40,000 gallons per day and is used in whole or in part for and of the following: commercial, industrial, municipal, manufacturing, or public water supply use, use for oil or gas or other hydrocarbon exploration or production, agricultural use, including without limitation the irrigation of crops or livestock or poultry use, or any other purpose of use other than solely for domestic use, except as provided by Subsection (b) of this rule. 3. Leachate wells, monitoring wells, and piezometers.</p> <p><b>2.5.</b> Groundwater produced from a well during its development or rehabilitation, including groundwater used in pump tests, is exempt from the requirements relating to the payment of fees under Section 7, the requirement to install and maintain a meter under Section 8, and the requirement to report to the District the amount of water produced from a well under Section 3 However, use of the well must comply with those requirements before being placed into operation unless otherwise exempt under these rules.</p> <p><b>8.2.</b> Wells exempt under Rule 2.1 shall be exempt from the requirement to obtain a water</p>			

District	Rule	Exemption	Monitor	Meter	Date Amended
		meter under Rule 8.1.			
South East Texas	<p><b>10.2.</b> The District shall have the right to install or to require the installation of necessary metering equipment in order to determine well production capacity and monthly production rates.</p> <p><b>14.8.</b> (c) If it determines to issue a permit to transfer Groundwater out of the District, the Board may limit the permit as warranted by consideration of those factors identified above. In addition to conditions identified by Texas Water Code Section 36.1131, the permit to transfer water out of the District shall specify: (i) the amount of water that may be transferred out of the District; (ii) the period for which the water may be transferred; (iii) any monitoring or reporting requirements determined to be appropriate.</p>	None.		×	9-Oct-14
Southern Trinity	<p><b>8.1.</b> (a) Duty to Install: The owner and/or operator of a non-exempt well located within the District shall equip the well with a meter meeting the specifications of these Rules and shall operate and maintain the meter</p>	<p><b>5.501.</b> (a) The owner and/or operator of any of the following types of wells is exempt from the duty to obtain a drilling permit or groundwater withdrawal permit for the well:</p> <p>1. a well that was in use prior to the effective date of these rules, that is used solely for domestic</p>		×	16-Oct-12

District	Rule	Exemption	Monitor	Meter	Date Amended
	<p>to measure the instantaneous flow rate and cumulative amount of groundwater withdrawn from the well. For an existing, non-exempt well, a meter shall be installed by the owner and/or operator no later than February 1, 2008. For a new, non-exempt well, a meter shall be installed before any groundwater is withdrawn from the well.</p>	<p>use, and that was drilled, completed, or equipped so that it is incapable of producing more than 25,000 gallons of groundwater per day; 5. a well completed and capable of withdrawing water solely from the Brazos River Alluvium Aquifer if the water produced or to be produced from the well is used or to be used solely for domestic use or to provide water for livestock or poultry, and the well is: (A) on a tract of land that is 2 acres or more in size but less than 5 acres and the well is drilled, completed, or equipped to be incapable of producing more than 5,000 gallons of groundwater a day; (B) on a tract of land that is 5 acres or more in size but less than 7 acres and the well is drilled, completed, or equipped to be incapable of producing more than 12,000 gallons of groundwater a day; or (C) on a tract of land that is 7 to 10 acres in size and the well is drilled, completed, or equipped to be incapable of producing more than 17,000 gallons of groundwater a day.</p>			
Texana	<p><b>3.2.5.</b> Groundwater production from all non-exempt-use wells must be measured by the owner or operator using method that is accurate within plus or minus 10%.</p>	<p><b>Director's Policy Position 6.</b> Exempt-Use Wells: Wells operated to produce groundwater used solely for domestic, livestock, or personal recreation will be exempt from application fees, production</p>	x		25-Feb-11

District	Rule	Exemption	Monitor	Meter	Date Amended
	Measured water use shall be reported to the District on a quarterly basis using the District's quarterly groundwater production report form.	fees, registration fees, production permits and production reporting requirements. Wells operated to produce groundwater that are incapable of producing more than 35,000 gallons per day will be exempt from application fees, production fees, registration fees, and production permits.			
Trinity Glenrose	<p><b>9.6.</b> All exportation permits shall be issued with and subject to the following conditions: i. installation, equipping, operation, and maintenance of all meters in accordance with the District's rules;</p> <p><b>10.3.</b> If the Board determines that compliance has not been met, then the Board may choose from the following actions to ensure compliance with District Rules: (e) Continue to work with the owner until compliance is met and may mandate the monitoring of groundwater use by requiring the metering of the well or any other monitoring methods and provide regular production reports as determined by the Board.</p>	None.		x	14-Oct-13
Upper Trinity	<b>8.1.</b> (a) Except as	<b>2.1.</b> (a) The requirements of	x		16-Dec-13

District	Rule	Exemption	Monitor	Meter	Date Amended
	<p>provided in Rule 8.2, the owner of a well located in the District and not exempt under Rule 2.1 shall equip the well with a flow measurement device meeting the specifications of these Rules and shall operate the meter on the well to measure the flow rate and cumulative amount of groundwater withdrawn from the well. Except as provided in Rule 8.2, the owner of an existing well not exempt under Rule 2.1 that is located in the District shall install a meter on the well prior to producing groundwater from the well after December 31, 2008.</p>	<p>these Temporary Rules relating to the payment of fees under Section 7, the requirement to install and maintain a meter under Section 8, and the requirement to report to the District the amount of water produced from a well under Section 3 do not apply to the following types of wells: 1. All wells, existing or new, of any size or capacity used solely for domestic use, livestock use, poultry use, or agricultural use; 2. An existing well or new well that does not have the capacity, as equipped, to produce more than 25 gallons per minute and is used in whole or in part for commercial, industrial, municipal, manufacturing, or public water supply use, use for oil or gas or other hydrocarbon exploration or production, or any other purpose of use other than solely for domestic, livestock, poultry, or agricultural use, except as provided by Subsection (b) of this rule; or 3. Leachate wells and monitoring wells. 8.2. Wells exempt under Rule 2.1(a) shall be exempt from the requirement to obtain a water meter under Rule 8.1. <b>8.2.</b> Wells exempt under Rule 2.1(a) shall be exempt from the requirement to obtain a water meter under Rule 8.1</p>			

District	Rule	Exemption	Monitor	Meter	Date Amended
Uvalde County	<p><b>12.2.</b> Permitting Requirements (a) Agricultural Use. 2. A well or well system used for any other agricultural use, except for irrigation use, shall be permitted to withdraw groundwater in accordance with the provision in subsection (d) of this Rule. (b) A well or well system used to supply a surface reservoir, stock tank, lake, or other confinement used for agricultural or any other beneficial use may be permitted to withdraw groundwater in an amount that is economically necessary, when reasonable intelligence and reasonable diligence are used for that purpose, not to exceed two and one half (2 Y.) acre feet per surface acre of the reservoir. For purposes of this subsection, measurement of the surface area of the reservoir shall be based on the maximum capacity of the confinement, as determined by the District based on the length or size of the dam, berm, or similar impoundment creating the reservoir. (c)</p>	<p><b>9.3.</b> (c) A transportation permit shall not be required where the well is located in Uvalde County and some or all of the water produced from that well is used for irrigation or agricultural purposes on land owned by the same person that straddles the Uvalde County line and a county contiguous to Uvalde County, so long as (i) the well and the location of the use of groundwater from that well are on the same contiguous tract of land and (ii) the well and the owner of the well are in compliance with applicable District Rules.</p>		x	19-Oct-10

District	Rule	Exemption	Monitor	Meter	Date Amended
	<p>For public water supply use, a well or a well system shall: 1. be drilled or equipped to meet the Minimum Water System Capacity Requirements for public drinking water systems as set forth in the rules of the Texas Commission on Environmental Quality, 30 Texas Administrative Code Section 290.49; and 2. be permitted to withdraw groundwater in an amount not to exceed the amount that the public water supply can demonstrate it needs to meet its current demands within its certificated service area or the municipal city limits served by that public water supply that are not already met by an alternate existing water supply and a reasonable amount for future growth. (d) For commercial or industrial use, or any other use not otherwise described in this RuJe, a well or well system may be permitted for an amount of groundwater not to exceed the amount of water that is economically necessary, when</p>				

District	Rule	Exemption	Monitor	Meter	Date Amended
	reasonable intelligence and reasonable diligence are used to apply the groundwater to a lawful purpose. (e) Each well that is subject to this Rule shall be equipped with a meter.				
Victoria County	<b>4.3.17.</b> Groundwater production from all non-exempt use wells must be measured by the authorized operator using a device or method that is accurate within 10% of the actual production and reported to the District.	<b>1.1.</b> EXEMPT USE means the operation of a well, well field, or well system: 1. For the sole purpose of producing groundwater to be used for domestic use purposes; 2. For the sole purpose of providing groundwater for livestock, poultry or personal recreation that is drilled, completed, or equipped so that it is incapable of producing more than 28,800 gallons of groundwater per day; 3. For the sole purpose of providing groundwater for firefighting; 4. For the sole purpose of providing a heat source or heat sink to a freshwater closed loop geothermal well; or 5. For the sole purpose of providing access to monitor groundwater resources that does not consume more than 5,000 gallons of water per year.	x		15-Nov-13

District	Rule	Exemption	Monitor	Meter	Date Amended
Wes-Tex	<p><b>3.5.</b> (c) A water well exempt under Subsection (a) shall be: (f) The board may require the well owner or operator to submit information verifying the amount of annual production from any well and the Board may require that a water meter be installed within a specified time period.</p> <p><b>3.20.</b> (b) For the purpose of categorizing wells by the amount of groundwater production, when wells are permitted with an aggregate withdrawal, the aggregate value shall be assigned to the group, rather than allocating to each well its prorated share or estimated production. Water withdrawn from each well shall be independently measured or metered.</p>	<p><b>3.5.</b> (a) The following wells are not required to have a drilling permit from the district: 1. a well used solely to supply water for a rig that is actively engaged in drilling or exploration operations for an oil or gas well permitted by the Railroad Commission of Texas provided that the person holding the Railroad Commission permit is responsible for drilling and operating the water well and the well is located on the same lease or field associated with the drilling rig; 2. a water well authorized under a permit issued by the Railroad Commission of Texas under Natural Resources Code Chapter 134, provided the withdrawals are no greater than the amount necessary for mining activities specified in the Railroad Commission permit, regardless of any subsequent use of the water.</p>	×	×	21-May-13

## Agriculture and metering

The final goal of this project was to determine which districts had specific metering exemptions, or in some cases requirements, for agricultural wells and to identify what those requirements were (Table 8). Of 28 districts with agricultural specific rules, only four districts with rules specific to agriculture fell outside of Subgroup 3d. The Wintergarden and High Plains districts belonged to Subgroup 2b, districts that have a strict meter or alternative measurement rule with no exceptions, the San Patricio district belonged Subgroup 3a, districts with rules requiring groundwater production metering or monitoring for sale or transport only. The Gonzales Groundwater Conservation District belonged to Subgroup 3b, districts with metering or monitoring rules for specific environmental conditions. Districts with agriculture-specific regulations accounted for approximately 29 percent of the total 96 districts examined in the study. Some common, agriculture-specific rules related to metering exempted agricultural wells from permitting, and thus metering. Other common rules altered fee requirements for agricultural wells that utilized metering or outlined groundwater production reporting requirements unique to agricultural wells.

**Table 8:** Districts with agriculture-specific rules and regulations.

District	Agriculture Rule	Agriculture Exemption
Barton Springs/Edwards Aquifer	None.	<p><b>3-3.1. B. 2.</b> A well drilled before August 14, 2003 in the Western or the Eastern Freshwater Edwards Management Zone is exempt if it is registered with the District and it is: (c) A well used for the watering, raising, feeding, or keeping of livestock for breeding purposes or for the production of food or fiber, leather, pelts or other tangible products having a commercial value. Boarding of horses, veterinarian facilities, sale barn or auction facilities, animal slaughtering operations, equestrian or rodeo arenas and facilities, and similar businesses are not considered agricultural livestock operations.</p> <p><b>3-1.3 B. 3.</b> A well drilled before September 10, 2009, in the Trinity Outcrop, Middle Trinity, or Lower Trinity Management Zones is exempt if it is registered with the District and it is: (b) A</p>

District	Agriculture Rule	Agriculture Exemption
		<p>well used for the watering, raising, feeding, or keeping of livestock for breeding purposes or for the production of food or fiber, leather, pelts or other tangible products having a commercial value. Boarding of horses, veterinarian facilities, sale barn or auction facilities, animal slaughtering operations, equestrian or rodeo arenas and facilities, and similar businesses are not considered agricultural livestock operations.</p>
Bluebonnet	None.	<p><b>8.3. B.</b> The following wells are required to be registered and to obtain approval for drilling, but are not required to have a pumpage or transport permit from the District: 2. Agricultural Wells. Agricultural wells defined by the district as: "Agricultural Well" – means a well used for agricultural activities listed under section 36.001 (19) of the Texas Water Code. Section 36.001 (19) of the Texas Water Code states: "Agriculture" means any of the following activities: (a) cultivating the soil to produce crops for human food, animal feed, or planting seed or for the production of fibers; (b) the practice of floriculture, viticulture, silviculture, and horticulture, including the cultivation of plants in containers or nonsoil media, by a nursery grower; (c) raising, feeding, or keeping animals for breeding purposes or for the production of food or fiber, leather, pelts, or other tangible products having a commercial value; (d) planting cover crops, including cover crops cultivated for transplantation, or leaving land idle for the purpose of participating in any governmental program or normal crop or livestock rotation procedure; (e) wildlife management; and (f) raising or keeping equine animals.</p>

District	Agriculture Rule	Agriculture Exemption
Brazoria County	None.	<p><b>3.4.</b> (a) Well owners or operators are not required to have a permit to drill or operate a well for the following uses: 2. a new or existing water well used only for agriculture. 3.5. (b) A new or existing water well used only for agricultural use is exempt from: 1. District fees of any type; and 2. District requirements that a meter be placed on the well. 2.2.4. "Agriculture" or "Agricultural Use" – any of the following activities: (A) cultivating the soil to produce crops for human food, animal feed, or planting seed or for the production of fibers;(B) the practice of floriculture, viticulture, silviculture, and horticulture, including the cultivation of plants in containers or nonsoil media, by a nursery grower; (C) raising, feeding, or keeping animals for breeding purposes or for the production of food or fiber, leather, pelts, or other tangible products having a commercial value;(D) planting cover crops, including cover crops cultivated for transplantation, or leaving land idle for the purpose of participating in any governmental program or normal crop or livestock rotation procedure; (E) wildlife management; and (F) raising or keeping equine animals.</p>
Brush County	None.	<p><b>14.</b> (a) The District provides an exemption from the District requirement to obtain a permit for: 4. Drilling or operating a well used for agricultural purposes, if the well is drilled, completed, or equipped so that it is incapable of annual production that does not exceed one acre-foot per contiguous surface acre owned or operated by the well owner; 14. (j) Groundwater withdrawn under an exemption provided in accordance with this rule and subsequently transported outside the boundaries of the district is subject to any applicable production and export fees provided under</p>

District	Agriculture Rule	Agriculture Exemption
		<p>these rules and established by Board resolution. This provision does not apply to a well used for exempt agricultural purpose where water is transported outside the District for use on land owned by the same landowner who owns and operates the well located within the District.</p>
Coastal Bend	None.	<p><b>3.5.</b> (a) The following wells are not required to have a permit from the District: 4. a well used for domestic use or agricultural use if the well owner or well operator provides a signed statement that the well will not produce more than five million gallons (15.34 acre feet) of water per year;</p> <p><b>3.5.</b> (d) In order to determine if a well is exempt under Subsection (a) 4., the well owner or well operator shall submit meter readings verifying the amount of annual production from the well. Meter readings must be recorded monthly, and reported annually on a form provided by the District.</p> <p><b>3.11</b> (e) Activities Not Considered Export. For purposes of this section, the following activities are not considered to be an export of groundwater: 2. the export of groundwater for an agricultural operation that overlaps or is adjacent to the District boundary.</p>
Coastal Plains	<p><b>3.5.</b> (a) The following wells are not required to have a permit from the District: 4. a well used for domestic use or agricultural use if the well owner or well operator provides a signed statement that the well will not produce more than five million gallons (15.34 acre feet) of water per year; (not exempt from metering. see metering requirements).</p> <p><b>3.5.</b> (d) In order to determine if a well is exempt under Subsection (a) 4., the Board may require the well owner or well operator to submit</p>	<p><b>4.1.</b> (b) Wells drilled prior to January 1, 2013 and permitted for agricultural use may use an alternative measuring method or device as authorized and approved by the District.</p>

District	Agriculture Rule	Agriculture Exemption
	<p>information verifying the amount of annual production from the well. If the Board determines that there is no reasonable basis for determining the amount of production, the Board may require that a water meter be installed within a specified time period.</p>	
Edwards Aquifer Authority	<p><b>709.37.</b> (b) If a person makes unmetered withdrawals of groundwater from the Aquifer for irrigation use, the Board may assess aquifer management fees under § 709.21(g)2.</p> <p><b>711.406.</b> (b) For any irrigation well in existence on September 1, 1993, that is not capped and from which withdrawals were made from the Aquifer during the historical period, or any replacement to such well, meters shall be designed, owned, installed, and maintained by the Authority at the cost of the Authority. Meters for such irrigation wells shall be operated by the well owner at the cost of the well owner.</p>	None.
Evergreen	<p><b>5.11.</b> A permittee authorized to produce water for an agricultural or livestock use shall file with the District annual reports describing the amount of water produced and used for the permitted purpose. Such report shall be filed on the appropriate form or forms provided by the district within fifteen (15) days of December 31, next following commencement of production and annually thereafter....</p>	None.
Goliad County	<p><b>Section V.</b> The President of the Board, or his/her designee, shall</p>	None.

District	Agriculture Rule	Agriculture Exemption
	<p>monitor the defined drought trigger indices and shall determine when conditions warrant initiation or termination of each stage of the Plan. Public notification by the District of the initiation or termination of drought stages shall be by means of notice posted in a newspaper of general circulation and by direct mailing and/or emails to owners/ operators of non-exempt wells. (b) Restriction on Non-exempt Wells – The District has the authority to monitor and manage the production from all Non-exempt (Permitted) wells. These include non-exempt wells used as Public Water Supply (PWS) wells to provide for domestic use and all such wells used to support agricultural, industrial, commercial, institutional and other non-domestic uses. This Plan may place restrictions on the production from such wells as a function of drought stage.</p>	
Gonzales County	<p><b>5.</b> The following wells are not required to have a permit from the District: (b) A well used for agriculture purpose (agricultural well) that produces between 28 acre feet (17.5 gpm) and 161 acre feet (100 gpm) of water per year. In order to determine if a well is exempt under this provision, the District may require the well owner or operator to submit information verifying the amount of annual production from the well. Even though exempt from permitting, an agricultural well must be registered with the District and report water usage annually.</p>	None.

District	Agriculture Rule	Agriculture Exemption
	<p><b>6. (c)</b> All non-exempt wells capable of producing greater than 25,000 gallons per day that are not considered livestock, agricultural, or domestic wells existing on March 18, 2008, in an area annexed into the District's boundaries shall be registered with the District by June 1, 2010 and the owner of any nonexempt well(s) capable of producing greater than 25,000 gallons of water per day shall report annually to the District the total amount of water withdrawn.</p>	
Hays Trinity	None.	<p><b>3.11.1.</b> New wells exempted from obtaining an operating permit must comply with District Rules and all State and District well construction requirements. The following wells are not required to obtain an operating permit as the use is considered exempt: (b) Agricultural: A well used solely for conventional farming and ranching activities, including such intensive operations as aquaculture, livestock feedlots, or poultry operations. Landscape irrigation such as sport fields are not considered agricultural use.</p>
High Plains	None.	<p><b>5.8. (a)</b> One Irrigated Crop. An owner or operator of property producing groundwater solely for agricultural purposes may certify that they will not engage in the practice of double cropping as defined in Rule 1(n). Certification under this provision shall satisfy the requirements of Rule 5.3. subject to verification by the District. (g) If an owner or operator of property producing groundwater solely for agricultural purposes fails to choose one of the [other] reporting methods, they will be deemed to have elected Rule 5.8. (a), subject to verification by the District.</p>

District	Agriculture Rule	Agriculture Exemption
Lost Pines	None.	<b>3.1.</b> (b) Agricultural well. A water well that uses less than 200 acre-feet of water per year solely for Agricultural Use is exempt from obtaining an Operating Permit under Section 5 of these Rules.
Lower Trinity	None.	<b>1.1.</b> (v) "Exempt Well" shall mean any well for which the District is prohibited to require a permit under the District Act, Texas Water Code §36.117 or the District Rules. Exempt wells include wells used solely for domestic or Agricultural use or for providing water for livestock or poultry. Wells to supply water for a subdivision of land for which plat approval is required by law or regulation are not exempt. For all purposes herein, an Exempt Well shall be exempt from permitting requirements and production fees but shall not be exempt from pre-registration or registration requirements. (y) "Agriculture or Agricultural" means: 1. cultivating the soil to produce crops for human food, animal feed, or planting seed or for the production of fibers; 2. the practice of floriculture, viticulture, silviculture, and horticulture, including the cultivation of plants in containers or nonsoil media, by a nursery grower; 3. raising, feeding, or keeping animals for breeding purposes or for the production of food or fiber, leather, pelts, or other tangible products having a commercial use; 4. planting cover crops, including cover crops cultivated for transplantation, or leaving land idle for the purpose of participating in any governmental program or normal crop or livestock rotation procedure; 5. wildlife management; 6. raising or keeping equine animals.
Mid-East Texas	None.	<b>8.9.</b> E. A well whose production is used wholly or substantially wholly for growing plants in a greenhouse operation or in a water conservation drip irrigation system in

District	Agriculture Rule	Agriculture Exemption
		<p>which the water is distributed to the plant in a closed (piped) system and is applied directly to the soil or growing medium at the plant [is exempt from permitting].</p> <p><b>14.6. (d) Activities Not Considered Export.</b> For purposes of this section, the following activities are not considered to be an export of groundwater: 2. the export of groundwater for an agricultural operation that overlaps or is adjacent to the District boundary.</p>
Neches and Trinity	None.	<p><b>3.8. (d) 1.</b> Withdrawals from all non-exempt wells, except wells used for Domestic or agricultural capable of providing more than 25,000 gallons per day but less than 100,000 gallons per day, must be accurately metered and their pumpage reported to the District quarterly.</p>
North Texas (Temporary Rules)	None.	<p><b>1.1. (22) "Livestock"</b> means, in the singular or plural, grass- or plant-eating, single- or cloven- hooved mammals raised in an agricultural setting for subsistence, profit or for its labor, or to make produce such as food or fiber, including cattle, horses, mules, asses, sheep, goats, llamas, alpacas, and hogs, as well as species known as ungulates that are not indigenous to this state from the swine, horse, tapir, rhinoceros, elephant, deer, and antelope families, but does not mean a mammal defined as a game animal in section 63.001, Parks and Wildlife Code, or as a fur-bearing animal in section 71.001, Parks and Wildlife Code, or any other indigenous mammal regulated by the Texas Department of Parks and Wildlife as an endangered or threatened species. The term does not include any animal that is stabled, confined, or fed at a facility that is defined herein as an Animal Feeding Operation.</p> <p><b>2.1. (a)</b> The requirements of these Temporary Rules relating to the payment of fees under Section 7, the requirement to</p>

District	Agriculture Rule	Agriculture Exemption
		install and maintain a meter under Section 8, and the requirement to report to the District the amount of water produced from a well under Section 3 do not apply to the following types of wells:1. All wells, existing or new, of any size or capacity used solely for domestic use, livestock use, or poultry use.
Northern Trinity (Temporary Rules)	None.	<p><b>1.1. 1.</b> “Agricultural irrigation” means the application of produced groundwater to soil for beneficial purposes as part of any of the following activities: 1. cultivating the soil to produce crops for human food, animal feed, or planting seed or for the production of fibers; 2. the practice of floriculture, viticulture, silviculture, and horticulture, including the cultivation of plants in containers or nonsoil media, by a nursery grower; 3. raising, feeding, or keeping animals for breeding purposes or for the production of food or fiber, leather, pelts, or other tangible product having a commercial value; 4. planting cover crops, including cover crops cultivated for transplantation, or leaving land idle for the purpose of participating in any governmental program or normal crop or livestock rotation procedure; 5. wildlife management; and 6. raising or keeping equine animals. (16) “Livestock” means, in the singular or plural, grass- or plant-eating, single- or cloven hooved mammals raised in an agricultural setting for subsistence, profit or for its labor, or to make produce such as food or fiber, including cattle, horses, mules, asses, sheep, goats, llamas, alpacas, and hogs, as well as species known as ungulates that are not indigenous to this state from the swine, horse, tapir, rhinoceros, elephant, deer, and antelope families, but does not mean a mammal defined as a game animal in section 63.001, Parks and Wildlife Code, or as a fur-bearing</p>

District	Agriculture Rule	Agriculture Exemption
		<p>animal in section 71.001, Parks and Wildlife Code, or any other indigenous mammal regulated by the Texas Department of Parks and Wildlife as an endangered or threatened species. The term does not include any animal that is stabled, confined, or fed at a facility that is defined by Texas Commission on Environmental Quality rules as an Animal Feeding Operation or a Concentrated Animal Feeding Operation.</p> <p><b>2.1.</b> (a) The requirements of these Temporary Rules relating to the payment of fees under Section 6, the requirement to install and maintain a meter under Section 7, and the requirement to report to the District the amount of water produced from a well under Section 3 do not apply to the following types of wells: 1. All wells, existing or new, of any size or capacity that are used solely for domestic use, livestock use, poultry use, or agricultural irrigation use.</p>
Panola County	None.	<p><b>1.1.</b> (c) "Agricultural irrigation use" means applying groundwater to soil to produce crops for human food, animal feed, or planting seed or for the production of fibers.</p> <p><b>3.5.</b> 3. a well which meets all of the following requirements: (A) provides water for agricultural irrigation use, as that term is defined in Rule 1.1; (B) that is located or to be located on a tract of land of 5 acres or less; and(C) that is drilled, completed, or equipped so that it is incapable of producing more than 25,000 gallons of groundwater a day.</p>
Piney Woods	None.	<p><b>3.8.</b> (d) Withdrawals from all non-exempt wells and wells exempt pursuant to Rule 1.1 (u) shall be accurately metered and the quantity of groundwater produced shall be reported to the District quarterly. Wells used for Domestic or agricultural purposes capable of providing more than 25,000 gallons per day but less than 100,000</p>

District	Agriculture Rule	Agriculture Exemption
		gallons per day are not required to be metered or report production.
Prairie Lands (Temporary rules)	None.	<b>2.1.</b> (a) The requirements of these Temporary Rules relating to the payment of Water Use Fees under Section 7, the requirement to install and maintain a meter under Section 8, and the requirement to report to the District the amount of water produced from a well under Section 3 do not apply to the following types of wells: 1. All wells, existing or new, of any size or capacity used solely for domestic use, livestock use, poultry use, or agricultural use.
Real-Edwards	<b>5.3.</b> (h) Reporting. A permittee authorized to produce water for an agricultural or livestock use shall file with the District annual reports describing the amount of water produced and used for the permitted purpose. Such report shall be filed on the appropriate form or forms provided by the district within fifteen (15) days of December 31 next following commencement of production and annually thereafter. Permittees authorized to produce water for other purposes of use shall file with the District monthly reports describing the amount of water produced and used for the permitted purpose. Such report shall be filed on the appropriate form or forms provided by the district within fifteen (15) days of the first of each month.	None.

District	Agriculture Rule	Agriculture Exemption
Red River (Temporary rules)	None.	<p><b>2.1.</b> (a) The requirements of these Temporary Rules relating to the payment of Water Use Fees and Groundwater Transport Fees under Section 7, the requirement to install and maintain a meter under Section 8, and the requirement to report to the District the amount of water produced from a well under Section 3 does not apply to the following types of wells:</p> <p>2. An existing well or new well that does not have the capacity, as equipped, to produce more than 40,000 gallons per day and is used in whole or in part for and of the following: commercial, industrial, municipal, manufacturing, or public water supply use, use for oil or gas or other hydrocarbon exploration or production, agricultural use, including without limitation the irrigation of crops or livestock or poultry use, or any other purpose of use other than solely for domestic use, except as provided by Subsection (b) of this rule.</p>
San Patricio	<p><b>Rule 10.</b> ...A well owner may opt to install a meter and pay a minimum annual production fee of \$100 per well plus \$1.00 per acre foot of water used in that calendar year for agricultural purposes...</p>	None.

District	Agriculture Rule	Agriculture Exemption
Upper Trinity (Temporary rules)	<b>2.2.</b> All wells not described as exempt under Rule 2.1 (a) are subject to the fee payment, metering, reporting, registration, and other requirements of these Temporary Rules. Such wells include wells with a capacity, as equipped, to produce more than 25 gallons per minute and that are used in whole or in part for any purpose of use other than solely for domestic use, livestock use, poultry use, or agricultural use.	<b>2.1.</b> (a) The requirements of these Temporary Rules relating to the payment of fees under Section 7, the requirement to install and maintain a meter under Section 8, and the requirement to report to the District the amount of water produced from a well under Section 3 do not apply to the following types of wells: 1. All wells, existing or new, of any size or capacity used solely for domestic use, livestock use, poultry use, or agricultural use.
Uvalde County	<b>12.2.</b> Permitting Requirements (a) Agricultural Use. 1. A well or well system used for irrigation may be permitted to withdraw groundwater in an amount not to exceed a cumulative maximum production level of ten (10) gallons per minute per irrigated acre contiguously owned or operated by the same person, not to exceed two and one half (2 1/2) acre feet per irrigated acre per year, unless an exception has been granted by the District. A tract of land otherwise contiguously owned and operated may be divided by a road or highway or similar right of way. (e) Each well that is subject to this Rule shall be equipped with a meter.	None.
Wes-Tex	None.	<b>3.11.</b> (e) Activities Not Considered Export. For purposes of this section, the following activities are not considered to be an export of groundwater: 2. the export of groundwater for an agricultural operation that overlaps or is adjacent to the District boundary.

District	Agriculture Rule	Agriculture Exemption
Wintergarden	<p><b>6.5. (a) Agricultural or Livestock Use.</b> The owner of a well permit authorized to produce groundwater in excess of 25,000 gallons per day for an agricultural or livestock use, shall file with the District annual reports describing the amount of water produced and used for the permitted purpose. Such reports shall: 1. be filed on forms approved by the District; 2. be due on or before the 30th day (or January 30) following the close of the calendar year in which groundwater production commenced and annually thereafter; and 3. provide the amount of groundwater produced, expressed in acre feet, and describe the use of the groundwater for the preceding calendar year.</p>	None.

## Conclusion

Through this study, we reviewed and analyzed the rules of 96 groundwater conservation and subsidence districts to determine the extent to which each district requires monitoring of groundwater production and how agricultural water use is exempted and regulated within these rules. While the majority of districts have some kind of stipulation for groundwater monitoring (about 91 percent), only 31 districts (about 32 percent) specifically mention meters as the form of measurement required and do not allow for the use of alternative production measurement devices. Considering that the majority of districts with metering and even monitoring regulations allow exemptions beyond those mandated by the Texas Water Code or apply only to specific well types (about 75 percent of all districts), actual understanding of the amount of groundwater produced across the districts is likely limited.

## References

- Brown, J.E., 1998, Senate Bill 1: We've Never Changed Texas Water Law This Way Before: 28 St. B. Tex Env'tl. L.J. 152, 10 p.
- Lehman, C., 2004, Hung Out to Dry? Groundwater Conservation Districts and the Continuing Battle to Save Texas's Most Precious Resource: 35 Texas Tech Law Review 101, 34 p.
- Mace, R., 2015, Personal Communication, Austin, Texas
- TCEQ, 2015, Map of Groundwater Conservation Districts (July 2015): Texas Commission on Environmental Quality
- TCEQ, 2015, What is a Groundwater Conservation District PDF: Texas Commission on Environmental Quality
- Texas Water Code §36.001, §36.111, §36.117
- Turner, C., 2015, Approval of Fiscal Year 2015 Agricultural Water Conservation Grants: Texas Water Development Board
- Turner, C.G., McAfee, K., Pandey, S., and Sunley, A., 2011, Irrigation Metering and Water Use Estimates: A Comparative Analysis, 1999-2007: Texas Water Development Board Report 378, 147 p.
- Texas Water Development Board, 2012, Water for Texas-2012: Texas Water Development Board Report 378, 147 p.