EXECUTIVE SUMMARY

The Briscoe, Hale and Swisher County Priority Groundwater Management Area (PGMA) was delineated and designated by the Texas Water Commission in 1990,¹ when the Texas Commission on Environmental Quality (TCEQ) was not required to make a formal recommendation for the establishment of a groundwater conservation district (GCD).

Today, the Executive Director (ED) is authorized to petition the Commission to establish groundwater management in PGMAs where there is none.² This report identifies the areas in the Briscoe, Hale and Swisher County PGMA not included in a GCD. The purposes of this report is to evaluate whether one or more GCDs should be created or added to an existing GCD, or both; and to provide a recommendation on the best option.

All of the Hale County and Swisher County portions of the PGMA are now a part of High Plains Water Conservation District No. 1 (Hale County by 1993, and Swisher County by vote on November 2, 2010). Thus, the only part of the PGMA without groundwater management is the portion of Briscoe County overlying the Ogallala aquifer. The ED believes that a uniform groundwater management program to conserve, preserve, and protect the groundwater resources is necessary for the Briscoe, Hale and Swisher County PGMA, both for landowners that are presently within the High Plains Water Conservation District No. 1 (HPWD), and for those landowners in the subject area of Briscoe County.

Two groundwater management options are available for the western portion of Briscoe County. First, a new GCD could be created. This option would have the greatest economic impact on landowners and the GCD would only manage a limited, politically delineated portion of the Ogallala aquifer. Second, the area could be added to the HPWD. This option would have the least economic impact on landowners and would allow for a uniform groundwater management program for this region of the Ogallala aquifer. The HPWD currently covers all or part of 16 counties and overlies most of the Ogallala aquifer in Groundwater Management Area 2 (GMA 2) (Figure 1).

The ED made a draft version of this report available for public comment from January 9, 2013 until June 30, 2013. No public comments were received. The ED recommends that the Commission find that the remaining area of the PGMA should be added to the HPWD, pursuant to 30 TAC, Chapters 293 and 294. The ED further recommends that the Commission find that doing so is the most feasible, practicable, and economic means to achieve groundwater management within the Briscoe, Hale and Swisher County PGMA. If the Commission chooses the second option and finds that the PGMA should be added to an existing GCD, it shall issue an order recommending this action.

¹ For an exact description, see 30 TAC §294.31.
² See Texas Water Code (TWC), Chapters 35 and 36, and Title 30 Texas Administrative Code (30 TAC), §293.19(b) and §294.44.
Figure 1 Groundwater Management Area 2
BACKGROUND

The PGMA process provided in Chapter 35 of the Texas Water Code is implemented by TCEQ rules. These rules are contained in 30 TAC, §§293.19 and 294.41 - .44. The rules outline procedures for designating PGMAs and creating GCDs in PGMAs. Chapter 36 of the Texas Water Code provides the general management and regulatory framework for groundwater conservation districts (GCDs).

In 1985, the Texas Department of Water Resources was given authorization to study, delineate, and designate areas of the state that were experiencing or expected to experience critical groundwater problems within the next 20 years. In 1987, the portion of Briscoe County covering the Caprock Escarpment, and Hale and Swisher counties (Figure 2) were identified for a Critical Area Study. The Texas Water Development Board (TWDB)(Nordstrom, 1989) prepared an evaluation report and the Texas Water Commission completed a report titled Briscoe, Hale and Swisher Counties – A Critical Area Ground Water Study (Study) with recommendations (Hart, 1990).

The 1990 Study concluded that the primary hydrologic problems facing the Briscoe, Hale and Swisher County area were the continuing decline in water levels; the potential, over the next 20 years, for groundwater shortages and waste of groundwater; and the absence of surface water supplies. The 1990 Study recommended the Texas Water Commission designate the Briscoe, Hale and Swisher County study area as a Critical Area.

In response, the Texas Water Commission adopted rules designating Briscoe, Hale, and Swisher Counties, excluding the portion of Briscoe County below the Caprock Escarpment and the portion of Hale County within the HPWD, as a Critical Area. Official designation was set out in the former Section 294.21 and published in the June 29, 1990 edition of the Texas Register (15 TexReg 3743).

In 1997, Senate Bill 1 renamed Critical Areas as PGMAs and changed the process for PGMA designation and studies. In 1999, the Commission renumbered Section 294.21 to 294.31, where the delineation and designation of the Briscoe, Hale and Swisher County PGMA can be found today. These rules were published in the February 12, 1999 edition of the Texas Register (24 TexReg 965-969).

UNMANAGED PGMA

In response to landowner petitions, the HPWD expanded to include the rest of Hale County in 1993. Since 1951, Swisher County has petitioned to join HPWD six times, and the residents voted the proposition down five times. The sixth attempt by Swisher County to join HPWD passed the November 2, 2010 election. The only portion of the PGMA remaining without GCD protection is the approximately 406 square miles of Briscoe County that overlies the Ogallala aquifer (Figure 2).

All of Briscoe County is included in GMA 2, which was delineated by the TWDB as an area that is suitable for the management of the southern part of the Ogallala aquifer, the Edwards-Trinity (High Plains) aquifer, and part of the Dockum aquifer. GMA 2 covers about 18,160 square miles of the groundwater resources in the management area and
Figure 2 Briscoe County and surrounding GCDs
includes 23 counties and seven GCDs that manage the Ogallala aquifer in all or part of 20 of those counties.

The HPWD manages all or part of 13 of the 20 counties in GMA 2, as well as part of three additional counties in GMA 1 to the north. The PGMA portion of Briscoe County is contiguous to the HPWD to the north, west, and south, but is not contiguous with any GCD to the east.

DISTRICT CREATION OPTIONS AND CONSIDERATIONS

In accordance with Section 293.19, the options for the Briscoe County portion of the PGMA are to create a new GCD, or add the territory to the HPWD. When evaluating these options, the ED must consider the purpose, feasibility, and practicability of a recommended GCD creation action. Relevant to these determinations are:

- whether a recommended GCD creation action can effectively manage the groundwater resources under the authority of Chapter 36,
- whether the boundaries for a recommended GCD creation action will provide for the effective management of groundwater resources, and
- whether the recommended GCD creation action can be adequately funded to finance required or authorized groundwater management planning, regulation, and district operation under Chapter 36.

FEASIBILITY OF GROUNDWATER MANAGEMENT

GCDs finance their operations through taxes, well production fees, or both. Taxes are levied on all residents; well production fees are paid by large groundwater users. GCDs are required to operate from an annual budget. District directors are not entitled to receive a salary and spending district revenue is limited to budgeted items. Present GCDs range in size from as large as 16 counties, to as small as part of a single county.

Budgets for existing operational GCDs range from $1,000, for a single-county district with limited permitting and monitoring programs, to several million dollars for special-law districts with specific statutory groundwater management responsibilities or regional-scale GCDs. Present budgets for GCDs in GMA 2 are shown in Table 1.

Potential Tax Revenues

Most of the GCDs within GMA 2 are funded by ad valorem taxes. Before any GCD can levy and collect an ad valorem tax, the proposition must first be offered to and approved by the voters. By law, a GCD may levy an ad valorem tax at a rate not to exceed $0.50 per $100 assessed valuation to pay for maintenance and operating expenses.3 Most GCDs

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3 TWC, §36.201.
Table 1. Financial Information for GCDs in the GMA 2

<table>
<thead>
<tr>
<th>GCD Name</th>
<th>2012 Annual Budget</th>
<th>Total Staff</th>
<th>Ad Valorem Tax Rate/$100</th>
<th>Permit Fees</th>
<th>Production Fees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Garza County UFWCD</td>
<td>$1,000</td>
<td>5</td>
<td>NA</td>
<td>$150/permit approx. $600/year</td>
<td>NA</td>
</tr>
<tr>
<td>High Plains UWCD No 1</td>
<td>$2,818,265</td>
<td>19</td>
<td>$0.00754</td>
<td>$250-refunded if returned promptly</td>
<td>NA</td>
</tr>
<tr>
<td>Llano Estacado UWCD</td>
<td>$498,342</td>
<td>3</td>
<td>$0.008386</td>
<td>$100</td>
<td>NA</td>
</tr>
<tr>
<td>Mesa UWCD</td>
<td>$218,792</td>
<td>2.5</td>
<td>$0.0170</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Permian Basin UWCD</td>
<td>$505,957</td>
<td>3</td>
<td>$0.007023</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Sandy Land UWCD</td>
<td>$478,025</td>
<td>9</td>
<td>$0.01064</td>
<td>$200-refunded if returned in 90 days</td>
<td>NA</td>
</tr>
<tr>
<td>South Plains UWCD</td>
<td>$325,000</td>
<td>2</td>
<td>$0.02500</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>

Source: GCDs in GMA 2 Annual Budgets (August 2012).

Table 2. Estimated Tax Calculations

<table>
<thead>
<tr>
<th>GCD Name</th>
<th>2012 Annual Budget</th>
<th>No. of Counties in District</th>
<th>Budget Per County</th>
<th>Square Miles</th>
<th>Budget Per Square Miles</th>
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</thead>
<tbody>
<tr>
<td>Garza County UFWCD</td>
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<td>$1,000</td>
<td>896</td>
<td>$1</td>
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<tr>
<td>High Plains UWCD No 1</td>
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<td>16</td>
<td>$176,142</td>
<td>11,850</td>
<td>$238</td>
</tr>
<tr>
<td>Llano Estacado UWCD</td>
<td>$498,342</td>
<td>1</td>
<td>$498,342</td>
<td>1,503</td>
<td>$332</td>
</tr>
<tr>
<td>Mesa UWCD</td>
<td>$218,792</td>
<td>1</td>
<td>$218,792</td>
<td>902</td>
<td>$243</td>
</tr>
<tr>
<td>Permian Basin UWCD</td>
<td>$505,957</td>
<td>2</td>
<td>$252,979</td>
<td>1,315</td>
<td>$385</td>
</tr>
<tr>
<td>Sandy Land UWCD</td>
<td>$478,025</td>
<td>1</td>
<td>$478,025</td>
<td>800</td>
<td>$598</td>
</tr>
<tr>
<td>South Plains UWCD</td>
<td>$325,000</td>
<td>1</td>
<td>$325,000</td>
<td>891</td>
<td>$365</td>
</tr>
<tr>
<td>Total</td>
<td>$4,845,381</td>
<td>23</td>
<td>$1,950,279</td>
<td>18,157</td>
<td>$2,160</td>
</tr>
<tr>
<td>Average</td>
<td></td>
<td></td>
<td>$278,611</td>
<td></td>
<td>$309</td>
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</table>

Table 3. Estimated Tax Rate in Briscoe County PGMA

<table>
<thead>
<tr>
<th>2012 Valuation</th>
<th>Revenue needed to Generate $0.01/$100</th>
<th>Average Budget Per County</th>
<th>Square Miles</th>
<th>Average Budget per square mile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Briscoe County PGMA</td>
<td>$65,963,027</td>
<td>$659,630</td>
<td>$278,611</td>
<td>406</td>
</tr>
<tr>
<td>Estimated Tax Rate</td>
<td></td>
<td>0.4224</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
have lower tax caps set by their enabling legislation or by the voters. Present tax rates for GCDs in GMA 2 range from $0.007023 to $0.0250 per $100 assessed valuation.

In the western portion of Briscoe County, the total appraised value for county taxation for 2012 is $65,963,027 (McWaters, 2012). If that land is added to the HPWD, the current tax rate of $0.00754 would be assessed per $100 of valuation, for a total ad valorem tax impact of $4,974. If that land is incorporated into a single district, the district would have to assess a tax rate between $0.1899 and $0.4224 per $100 of valuation to generate an operating budget between $125,287 and $278,611 (based on the average cost per square mile and average cost per county as shown in Tables 2 and 3).

Potential Production Fee Revenues

GCDs may also generate revenue through the assessment and collection of well production fees on permitted wells. Unless otherwise addressed by a district’s enabling legislation, the production fees are initially capped by law at $1 per acre-foot/year for agricultural use, and $10 per acre-foot/year for other uses. The rates can be doubled over a five-year period. Based on year 2008 groundwater use, an estimated 34,855 acre-feet of groundwater was produced from the Ogallala aquifer for irrigation and livestock in western Briscoe County. The municipal water use for year 2008 was 29 acre-feet in western Briscoe County according to TWDB Historical Water Use Database (2009).

The potential revenue from production fees for a GCD in the western portion of Briscoe County in year one would be about $35,145 ($34,855 from agricultural use and $290 from municipal use), and could potentially be doubled to around $70,209 by year five.

Analysis

The two options for bringing the Briscoe County PGMA under groundwater management identified above have somewhat different procedures. In the first option, the TCEQ issues an order that would create a new Briscoe County GCD. Such an order would provide the district’s purpose, set the district’s boundary, and estimate the minimum maintenance tax or production fee necessary to support the district. The order would also provide for the appointment of five temporary directors by the Briscoe County Commissioners Court. The new GCD would be responsible for the cost of the election for directors and the tax proposition and, if the tax proposition were defeated, the new GCD would be financed though well production fees, or any other means available under Chapter 36.

In the second option, the TCEQ would issue an order that recommends adding the Briscoe County portion of the PGMA to the HPWD. The board of directors of the HPWD would vote on that recommendation and, if the board accepted the territory, that territory would be given reasonable representation on HPWD’s board of directors consistent with the district’s existing director representation scheme. The HPWD would then be required to call an election within the territory to determine if the landowners will assume a proportional share of the debts and taxes of the district instead of the assessment of production fees. If the election fails, groundwater management for the Briscoe PGMA territory could be financed by well production fees or any other means available under Chapter 36.

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4 TWC, §36.205.
Create a GCD

In analyzing the benefits of creating a GCD for the Briscoe PGMA territory, the ED looks at whether a GCD can effectively manage the groundwater resources under the authority of Chapter 36. There are five single county GCDs in the southern portion of GMA 2. Each one of these has adopted rules, policies, a management plan, and participates in joint planning. If the TCEQ were to create a GCD for western Briscoe County, the general powers in Chapter 36 would provide sufficient authority to effectively manage the groundwater resources. The new GCD would have to adopt new rules, policies, and a management plan, and participate in joint planning.

The boundaries of a new GCD would provide for the management of groundwater resources. Although the boundaries of a new GCD in western Briscoe County could provide for an effective management program, it would manage only a small, politically delineated portion of the Ogallala aquifer.

A GCD funded by ad valorem taxes could raise adequate funding for operation and maintenance expenses at a rate that is within the limits provided by Chapter 36. Based on average cost to manage groundwater in GMA 2, the ED estimates that a GCD for western Briscoe County would need an operating budget between $125,287 and $278,611 and that the ad valorem tax rate needed to generate this amount of revenue would be between $0.1899 and $0.4224. Production fees alone would likely not be sufficient to finance the operations and maintenance of a new GCD.

Add the territory to an Existing GCD

If the TCEQ issued an order recommending western Briscoe County be added to a district, the only practical district to add it to would be the HPWD. This district is the only GCD that shares a boundary with the unmanaged PGMA.

The boundaries of the HPWD allow for effective management of the groundwater resources under Chapter 36. The HPWD has an approved management plan and rules that provide for the effective management of the water resources within its jurisdiction. HPWD already has rules, policies, and a management plan, and participates in joint planning for GMA 2, all which could make managing the southern Ogallala aquifer more immediate, uniform, and effective.

Joining the HPWD is also preferable from a funding perspective. The HPWD currently has a tax rate of $0.00754 per $100 valuation, which would cause a total tax impact of $4,974 per year to the landowners in Briscoe County. This option would have the least economic impact on landowners, while also providing adequate funding to manage that area.

If the HPWD board of directors votes against accepting the Briscoe PGMA territory to the district, the Commission will have two options. The first is to create a GCD. The second is, if creating a GCD is not feasible, to include a recommendation for the future management of the PGMA in the biennial report to the Texas Legislature required by Section 36.018.
**CONCLUSION AND RECOMMENDATION**

In accordance with state law and TCEQ rules, this report conveys the ED's petition to the Commission for actions to establish groundwater management in identified areas in the Briscoe, Hale and Swisher County PGMA that have neither created nor joined an existing GCD.

The ED recommends the Commission issue an order recommending that all of the territory in the Briscoe, Hale and Swisher County PGMA not currently in a GCD be added to the HPWD in accordance with Chapters 293 and 294. The alternative, to create a new GCD for a small territory, is feasible and practicable but would be financially burdensome for taxpayers. Adding the territories to a historically successful district, like the HPWD, appears to be the most feasible, practicable, and cost-effective option for the landowners in the PGMA. Also, a uniform groundwater management strategy is essential to the conservation of the finite groundwater resource and to the future of all the residents in the PGMA including those in western Briscoe County.
REFERENCES

F. Wheeler (Garza UFWCD), P. Kunkel (High Plains UWDC), M. Quintana (Llano Estacado UWCD), H. Everheear (Mesa UWCD), L. Adams (Permian Basin UWCD), G. McDonnell (Sandy Land UWCD), L. Harris (South Plains UWCD) Personal Communication. August 2012.


