

**RED RIVER  
GROUNDWATER  
CONSERVATION  
DISTRICT**

**BOARD MEETING**

**BOARD ROOM  
GREATER TEXOMA UTILITY AUTHORITY  
5100 AIRPORT DRIVE  
DENISON, TEXAS 75020**

**THURSDAY  
MAY 17, 2018**

**AGENDA**  
**RED RIVER GROUNDWATER CONSERVATION DISTRICT**  
**BOARD OF DIRECTORS BOARD MEETING**  
**GREATER TEXOMA UTILITY AUTHORITY BOARD ROOM**  
**5100 AIRPORT DRIVE**  
**DENISON, TEXAS 75020**  
**THURSDAY, MAY 17, 2018**

**Board Meeting**

The regular Board Meeting will begin at 10:00 a.m.

Notice is hereby given that the Board of Directors of the Red River Groundwater Conservation District ("District") may discuss, consider, and take all necessary action, including expenditure of funds, regarding each of the agenda items below:

**Agenda:**

1. Call to order, establish quorum; declare meeting open to the public.
2. Public Comment.
3. Consider and act upon approval of Minutes of March 15, 2018, Board Meeting.
4. Review and approval of monthly invoices.
5. Receive monthly financial information.
6. Receive Quarterly Investment Report.
7. Receive Quarterly Report.
8. Consider and act upon authorization to solicit proposals for 2018 audit services.
9. Update and possible action regarding the process for the development of Desired Future Conditions (DFCs).
10. Consider and act upon compliance and enforcement activities for violations of District Rules.
  - a. Texas Rain Holding Co. lawsuit
  - b. Buena Vista Turf Farm, LLC
11. General Manager's report: The General Manager will update the Board on operational, educational and other activities of the District.
  - a. Discuss potential sampling program

12. Receive presentation regarding permanent rules development.
    - a. Consider and act upon action items for rules development
  13. Open forum / discussion of new business for future meeting agendas.
  14. Adjourn.
- 

<sup>1</sup>*The Board may vote and/or act upon each of the items listed in this agenda.*

<sup>2</sup>*At any time during the meeting or work session and in compliance with the Texas Open Meetings Act, Chapter 551, Government Code, Vernon's Texas Codes, Annotated, the Red River Groundwater Conservation District Board may meet in executive session on any of the above agenda items or other lawful items for consultation concerning attorney-client matters (§551.071); deliberation regarding real property (§551.072); deliberation regarding prospective gifts (§551.073); personnel matters (§551.074); and deliberation regarding security devices (§551.076). Any subject discussed in executive session may be subject to action during an open meeting.*

<sup>3</sup>*Persons with disabilities who plan to attend this meeting, and who may need assistance, are requested to contact Velma Starks at (800) 256-0935 two (2) working days prior to the meeting, so that appropriate arrangements can be made.*

<sup>4</sup>*For questions regarding this notice, please contact Velma Starks at (800) 256-0935, at [rrgcd@redrivergcd.org](mailto:rrgcd@redrivergcd.org) or at 5100 Airport Drive, Denison, TX 75020.*



ATTACHMENT 3

MINUTES OF THE BOARD OF DIRECTORS' BOARD MEETING  
RED RIVER GROUNDWATER CONSERVATION DISTRICT

THURSDAY, MARCH 15, 2018

GREATER TEXOMA UTILITY AUTHORITY  
BOARD ROOM  
5100 AIRPORT DRIVE  
DENISON TX 75020

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Members Present: Chuck Dodd, Mark Gibson, Harold Latham, Mark Newhouse, Mark Patterson, David Gattis, and Billy Stephens

Members Absent: N/A

Staff: Drew Satterwhite, Allen Burks, Paul Sigel, Theda Anderson, Carolyn Bennett, and Velma Starks

Visitors: Kristen Fancher, Fancher Law  
John Faulkner, Faulkner & Son  
John Laverman, private citizen, Sadler

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Board Meeting

1. Call to order, establish quorum; declare meeting open to the public.

President Patterson called the meeting to order at 10:00 a.m., established a quorum was present, and declared the meeting open to the public.

2. Public comment

No public comments.

3. Consider and act upon approval of Minutes of February 22, 2018, Board Meeting.

Board Member Gibson made a motion to approve the minutes of the February 22, 2018 meeting. The motion was seconded by Board Member Gattis. The motion passed.

4. Review and approval of monthly invoices.

General Manager Satterwhite reviewed the monthly invoices with the Board of Directors. Board Member Gibson made a motion to approve Resolution 2018-03-15-01. Board Member Stephens seconded the motion. Motion passed unanimously.

5. Receive monthly financial information.

General Manager Satterwhite reviewed the monthly financial information with the Board.

6. Receive Annual Report on Management Plan.

Carolyn Bennett summarized the report. The Board discussed monitoring wells. General Manager Drew Satterwhite answered questions regarding monitoring wells.

7. Consider and act upon Regularly Scheduled Board meeting Date and Time.

Board Member Newhouse made the motion to hold board meetings at 10:00 a.m. Board member Dodd seconded the motion. Motion passed unanimously.

8. Update and possible action regarding the process for the development of Desired Future Conditions (DFCs).

General Manager Drew Satterwhite reported that the eleven GMA-8 Districts have held their public meetings. GMA-8 meeting might be scheduled in June or July.

9. Consider and act upon compliance and enforcement activities for violations of District Rules.

- a. Big D Concrete
- b. Texas Rain Holding Co. enforcement lawsuit.

Pursuant to the Texas Open Meetings Act, Chapter 551, Government Code, Vernon's Texas Codes, Annotated, §551.071, consultation with attorney, the Red River Groundwater Conservation District Board adjourned into Executive Session at 10:30 a.m. to discuss:

- a. Big D Concrete

The Board convened into Regular Session at 10:50 a.m. No action was taken on any items discussed during Executive Session.

Board Member Gattis made the motion that Big D Concrete correct the violation in 30 days and the fine to be forgiven. Board Member Newhouse seconded the motion. Motion passed unanimously.

Board Member Gattis made the motion that new unregistered non-exempt wells receive consecutive 60 days and 60 days extension to come into compliance. If after these periods have passed and violation is left unresolved, then bring back to board. Board Member Newhouse seconded the motion. Motion passed unanimously.

10. General Manager's Report: The General Manager will update the Board on operational, educational and other activities of the District.

General Manager Drew Satterwhite reported that the District has a total of 794 registered wells with 3 since February. Kristen Fancher, Legal Counsel, reported that the railroad injection well being reviewed has checked out. General Manager Satterwhite informed the Board that Board Member Latham provides presentations with educational material to use at schools to teach water conservation. The Board decided to allocate \$2,000 dollars to provide educational incentives for school water conservation programs.

11. Receive presentation regarding permanent rules development.

- a. Consider and act upon action items for rules development

Kristen Fancher, Legal Counsel, provided a presentation for rules development. She reviewed what had been previously discussed. The Board suggested that newspaper articles be submitted regarding spacing once the rules are set. The Board discussed using Historical Data relating to production from 2013 to present, drought buffer using Palmer Index with actual percentage later, historical usage using peak and meter readings, production permit deadline with everything filed

365 days, with one extension of 240 days by staff allowed, and then come before board, drilling deadline to remain same as it is now, and proof of beneficial use with adjustment. These discussions are to be used by legal counsel and District staff to create rules for Board to review.

12. Open Quorum/discussion of future agenda items.

The next meeting will be held on May 17 at 10:00 a.m.

13. Adjourn.

President Patterson declared the meeting adjourned at 12:38 p.m.

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\_\_\_\_\_  
Recording Secretary

\_\_\_\_\_  
Secretary-Treasurer



ATTACHMENT 4



RESOLUTION NO. 2018-05-01

A RESOLUTION BY THE BOARD OF DIRECTORS OF THE RED RIVER GROUNDWATER  
CONSERVATION DISTRICT AUTHORIZING PAYMENT OF ACCRUED LIABILITIES FOR THE  
MONTH OF MARCH-APRIL

The following liabilities are hereby presented for payment:

| <u>Administrative Services</u>                                            | <u>Amount</u>           |
|---------------------------------------------------------------------------|-------------------------|
| GTUA- March                                                               | 28,827.04               |
| GTUA-April                                                                | 17,676.41               |
| <u>Contract Services</u>                                                  |                         |
| ESRI - Renewal server maintenance for mapping well database 18-19         | 2,518.76                |
| IT Nexus (April 2018)                                                     | 600.00                  |
| IT Nexus (May 2018)                                                       | 600.00                  |
| WSP USA, Inc. - Hydro Services through February 2018                      | 3,815.00                |
| WSP USA, Inc. - Professional Services through March 2018                  | 1,283.91                |
| <u>Direct Costs</u>                                                       |                         |
| NexTraq - (March 2018 GPS tracking)                                       | 39.95                   |
| <u>Dues &amp; Subscription</u>                                            |                         |
| Texas Water Conservation Assoc. - Level B Dues & Membership renewal 18-19 | 358.00                  |
| <u>Legal</u>                                                              |                         |
| Law Offices of Kristen Fancher PLLC (services through March 2018)         | 6,939.55                |
| Law Offices of Kristen Fancher PLLC (services through April 2018)         | 4,647.45                |
| <b>GRAND TOTAL:</b>                                                       | <b>\$</b>               |
|                                                                           | <u><u>67,306.07</u></u> |

NOW THEREFORE BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE RED RIVER  
GROUNDWATER CONSERVATION DISTRICT THAT the Secretary-Treasurer is hereby authorized  
to make payments in the amounts listed above.

On motion of \_\_\_\_\_ and seconded by \_\_\_\_\_, the  
foregoing Resolution was passed and approved on this, the 17th day of May 2018 by the following vote:

AYE:

NAY:

At a meeting of the Board of Directors of the Red River Groundwater Conservation

\_\_\_\_\_  
President

ATTEST:

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Secretary/Treasurer

ATTACHMENT 5



**Red River Groundwater Conservation District****Balance Sheet****For General Fund (00)****April 30, 2018****Assets**

|                     |                                      |                      |
|---------------------|--------------------------------------|----------------------|
| 00-01-10001         | Checking Account                     | 124,711.49           |
| 00-01-10010         | Investments-CD                       | 200,000.00           |
| 00-01-10025         | Accounts Receivable                  | 112,990.90           |
| 00-01-10026         | A/R Texas Rain Holding Co            | 2,600.00             |
| 00-01-10101         | Allowance for Uncollectible Accounts | (1,530.00)           |
| 00-01-10200         | PP Expense                           | 720.82               |
| <b>Total</b>        |                                      | <u>439,493.21</u>    |
| <b>Total Assets</b> |                                      | <u>\$ 439,493.21</u> |

**Liabilities and Fund Balance**

|                                            |                                              |                                     |
|--------------------------------------------|----------------------------------------------|-------------------------------------|
| 00-01-23100                                | Accounts Payable                             | 19,919.68                           |
| 00-01-23150                                | Deposits to be Refunded                      | 6,700.00                            |
| <b>Total</b>                               |                                              | <u>26,619.68</u>                    |
| <b>Total Liabilities</b>                   |                                              | <u>26,619.68</u>                    |
|                                            |                                              |                                     |
| 00-01-35100                                | Fund Balance                                 | 73,069.05                           |
| 00-01-35120                                | Current Year Excess of Revenue over Expenses | 368,341.26                          |
| <b>Total</b>                               |                                              | <u>441,410.31</u>                   |
|                                            |                                              | Excess of Revenue Over Expenditures |
|                                            |                                              | (28,536.78)                         |
| <b>Total Fund Balances</b>                 |                                              | <u>412,873.53</u>                   |
| <b>Total Liabilities and Fund Balances</b> |                                              | <u>\$ 439,493.21</u>                |

# Red River Groundwater Conservation District

## Statement of Revenue and Expenditures

Revised Budget  
For General Fund (00)  
For the Fiscal Period 2018-4 Ending April 30, 2018

| Account Number                                           | Current<br>Budget     | Current<br>Actual     | Annual<br>Budget      | YTD<br>Actual         | Remaining<br>Budget % |
|----------------------------------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| <b>Revenues</b>                                          |                       |                       |                       |                       |                       |
| 00-01-46002 GW Production Cost                           | \$ 0.00               | \$ 0.00               | \$ 325,000.00         | \$ 91,185.03          | 71.94%                |
| 00-01-46005 Late Fees                                    | 0.00                  | 0.00                  | 0.00                  | 394.21                | 0.00%                 |
| 00-01-46007 Registration Fees                            | 458.33                | 200.00                | 5,500.00              | 1,100.00              | 80.00%                |
| 00-01-46010 Well Drillers Deposit                        | 0.00                  | 0.00                  | 0.00                  | (100.00)              | 0.00%                 |
| 00-01-46100 Interest Income                              | 208.33                | 0.00                  | 2,500.00              | 249.64                | 90.01%                |
| <b>Total General Fund Revenues</b>                       | <b>\$ 666.66</b>      | <b>\$ 200.00</b>      | <b>\$ 333,000.00</b>  | <b>\$ 92,828.88</b>   | <b>72.12%</b>         |
| <b>Expenditures</b>                                      |                       |                       |                       |                       |                       |
| 00-01-77010 Administrative Cost                          | \$ 9,166.67           | \$ 7,206.50           | \$ 110,000.00         | \$ 35,647.40          | 67.59%                |
| 00-01-77020 Advertising                                  | 0.00                  | 0.00                  | 1,000.00              | 0.00                  | 100.00%               |
| 00-01-77027 Auditing                                     | 0.00                  | 0.00                  | 4,750.00              | 0.00                  | 100.00%               |
| 00-01-77031 Banking Fees                                 | 0.00                  | 0.00                  | 100.00                | 0.00                  | 100.00%               |
| 00-01-77032 Contract Services                            | 5,683.33              | 3,118.76              | 68,200.00             | 19,426.59             | 71.52%                |
| 00-01-77035 Field Technician                             | 6,666.67              | 5,692.50              | 80,000.00             | 24,837.50             | 68.95%                |
| 00-01-77040 Direct Cost                                  | 333.33                | 721.82                | 4,000.00              | 2,475.98              | 38.10%                |
| 00-01-77045 Field Permitting Specialist                  | 2,500.00              | 2,886.00              | 30,000.00             | 14,403.50             | 51.99%                |
| 00-01-77450 Dues & Subscription                          | 141.67                | 358.00                | 1,700.00              | 358.00                | 78.94%                |
| 00-01-77480 Equipment                                    | 0.00                  | 0.00                  | 2,000.00              | 0.00                  | 100.00%               |
| 00-01-77500 Fees- GMA8                                   | 0.00                  | 0.00                  | 1,000.00              | 0.00                  | 100.00%               |
| 00-01-77610 Fuel                                         | 0.00                  | 0.00                  | 0.00                  | 35.81                 | 0.00%                 |
| 00-01-77810 Insurance                                    | 0.00                  | 720.84                | 4,500.00              | 1,756.68              | 60.96%                |
| 00-01-77855 Internet Fees                                | 541.67                | 0.00                  | 6,500.00              | 663.38                | 89.79%                |
| 00-01-77970 Legal                                        | 2,916.67              | 0.00                  | 35,000.00             | 16,501.58             | 52.85%                |
| 00-01-78010 Meetings and Conferences                     | 250.00                | 390.87                | 3,000.00              | 1,376.86              | 54.10%                |
| 00-01-78030 Office Supplies                              | 0.00                  | 13.74                 | 0.00                  | 13.74                 | 0.00%                 |
| 00-01-78310 Rent                                         | 200.00                | 200.00                | 2,400.00              | 600.00                | 75.00%                |
| 00-01-78600 Software Maintenance                         | 166.67                | 200.00                | 2,000.00              | 1,838.46              | 8.08%                 |
| 00-01-78750 Telephone                                    | 175.00                | 203.29                | 2,100.00              | 813.61                | 61.26%                |
| 00-01-78770 Transportation-Mileage                       | 416.67                | 161.69                | 5,000.00              | 616.57                | 87.67%                |
| <b>Total General Fund Expenditures</b>                   | <b>\$ 29,158.35</b>   | <b>\$ 21,874.01</b>   | <b>\$ 363,250.00</b>  | <b>\$ 121,365.66</b>  | <b>66.59%</b>         |
| <b>General Fund Excess of Revenues Over Expenditures</b> | <b>\$ (28,491.69)</b> | <b>\$ (21,674.01)</b> | <b>\$ (30,250.00)</b> | <b>\$ (28,536.78)</b> | <b>5.66%</b>          |

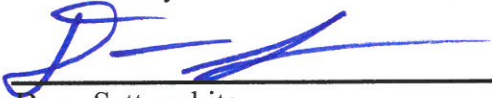
ATTACHMENT 6



Red River Groundwater Conservation District  
Quarterly Investment Report  
For the Quarter Ended  
March 31, 2018

The investment portfolio of the Red River Groundwater Conservation District is in compliance with the Public Funds Investment Act and the Investment Policy and Strategies.

Presented by Red River Groundwater Conservation District Investment Officers:

  
Drew Satterwhite  
Debi Atkins

Investment Holdings  
March 31, 2018

| Description        | Ratings | Coupon/<br>Discount | Maturity Date | Settlement Date | Face Amount/Par<br>Value | Book Value           | Market<br>Price | Market Value         | Life (Day) | Yield |                      |
|--------------------|---------|---------------------|---------------|-----------------|--------------------------|----------------------|-----------------|----------------------|------------|-------|----------------------|
| First United (DDA) |         | 0.00%               | 4/1/2018      | 3/31/2018       | \$ 155,741.19            | \$ 155,741.19        | 1.00            | \$ 155,741.19        | 1          | 0.00% | 155,741.19           |
| First United       |         | 1.80%               | 12/5/2018     | 3/5/2018        | 100,000.00               | 100,000.00           | 100.00          | 100,000.00           | 249        | 1.80% | 24,900,000.00        |
| First United       |         | 1.72%               | 9/5/2018      | 3/5/2018        | 100,000.00               | 100,000.00           | 100.00          | 100,000.00           | 158        | 1.72% | 15,800,000.00        |
|                    |         |                     |               |                 | <u>\$ 355,741.19</u>     | <u>\$ 355,741.19</u> |                 | <u>\$ 355,741.19</u> | <u>115</u> |       | <u>40,855,741.19</u> |
|                    |         |                     |               |                 |                          |                      |                 |                      | (1)        |       |                      |

(1) Weighted average life - For purposes of calculating weighted average life, bank accounts, pools and money market funds are assumed to have an one day maturity.

Book/Market Value Comparison

| Description        | Coupon/<br>Discount | Maturity<br>Date | December 31, 2017         |            |                      | Purchases/<br>Adjustments | Sales/Adjust/<br>Call Maturity | December 31, 2017         |    |                      |    |            |
|--------------------|---------------------|------------------|---------------------------|------------|----------------------|---------------------------|--------------------------------|---------------------------|----|----------------------|----|------------|
|                    |                     |                  | Face Amount/<br>Par Value |            | Book/Market<br>Value |                           |                                | Face Amount/<br>Par Value |    | Book/Market<br>Value |    |            |
|                    |                     |                  |                           |            |                      |                           |                                |                           |    |                      |    |            |
| First United (DDA) | 0.00%               | 4/1/2018         | \$                        | 146,152.10 | \$                   | 146,152.10                | 309,963.58                     | 300,374.49                | \$ | 155,741.19           | \$ | 155,741.19 |
| First United       | 1.29%               | 3/6/2018         |                           | 100,000.00 |                      | 100,000.00                |                                | 100,000.00                |    | -                    |    | -          |
| First United       | 1.09%               | 12/24/2017       |                           | 110,000.00 |                      | 110,000.00                |                                | 110,000.00                |    | -                    |    | -          |
| Landmark Bank      | 1.72%               | 9/5/2018         |                           |            |                      | 100,000.00                |                                |                           |    | 100,000.00           |    | 100,000.00 |
| Landmark Bank      | 1.80%               | 12/5/2018        |                           |            |                      | 100,000.00                |                                |                           |    | 100,000.00           |    | 100,000.00 |
|                    |                     |                  | \$                        | 356,152.10 | \$                   | 356,152.10                | \$                             | 510,374.49                | \$ | 355,741.19           | \$ | 355,741.19 |



ATTACHMENT 7



# RED RIVER

## GROUNDWATER CONSERVATION DISTRICT

FANNIN COUNTY AND GRAYSON COUNTY



### General Manager's Quarterly Report

Date: March 31, 2018

### Red River GCD Management Plan

This quarterly briefing is being provided pursuant to the adopted Management Plan for the quarter ending March 31, 2018.

#### Well Registration Program:

Current number of wells registered in the District: 788\*

Aquifers in which the wells have been completed: Trinity and Woodbine

#### Well Inspection/Audit Program:

#### 2018 Well Inspections

| Month     | Fannin | Grayson | Total |
|-----------|--------|---------|-------|
| January   | 2      | 36      | 38    |
| February  | 5      | 10      | 15    |
| March     | 0      | 31      | 31    |
| April     |        |         |       |
| May       |        |         |       |
| June      |        |         |       |
| July      |        |         |       |
| August    |        |         |       |
| September |        |         |       |
| October   |        |         |       |
| November  |        |         |       |
| December  |        |         |       |
| Total     | 7      | 77      | 84    |

\* reflects 10 wells that were deleted by the staff in a data scrubbing effort. The deleted wells were applied for/registered, but were never actually drilled.



ATTACHMENT 8





**RED RIVER GROUNDWATER CONSERVATION  
DISTRICT  
AGENDA COMMUNICATION**

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**DATE:** May 7, 2018

**SUBJECT:** AGENDA ITEM NO. 8

**CONSIDER AND ACT UPON AUTHORIZATION TO SOLICIT PROPOSALS FOR 2018 AUDIT SERVICES**

**ISSUE**

The 5-year term for auditing services concluded with the 2017 fiscal year. The District needs to solicit for audit proposals in the near future.

**BACKGROUND**

In 2013, the Board instructed the staff to solicit proposals for audit services for a period up to five (5) years. The staff initiated invitations to several firms in North Central Texas. As a result of that solicitation, four proposals were received. The audit committee reviewed the proposals and recommended McClanahan and Holmes, LLP of Bonham, Texas. This recommendation was accepted and confirmed by the Board at the March 2014 meeting. The Board has engaged the services of McClanahan and Holmes for each audit since this time.

The staff is now requesting direction from the Board whether to include our current auditors in the upcoming solicitation.

**OPTIONS/ALTERNATIVES**

The District has the option to include or exclude current audit firm in the next solicitation. The District also has the option to exclude the current Lead Auditor and therefore providing a fresh set of eyes from the current firm.

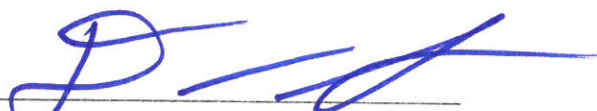
**CONSIDERATIONS**

District staff is of the opinion that McClanahan and Holmes, LLP of Bonham, Texas has provided thorough and quality audits during their tenure with the District. The District is not required to switch auditors after any length of time. However, some entities consider it a best practice to rotate auditors and/or audit firms every 5 years.

**STAFF RECOMMENDATIONS**

The staff requests that the Board provide guidance in this matter.

**PREPARED AND SUBMITTED BY:**

  
Drew Satterwhite, P.E., General Manager

**PREPARED BY:**

  
Debi Atkins, Finance Officer



ATTACHMENT 11

# Red River Groundwater Conservation District

## Well Registration Summary As of March 31, 2018

| Well Type            | Total Registered |                | Total RRGCD | New Registrations |
|----------------------|------------------|----------------|-------------|-------------------|
|                      | Fannin County    | Grayson County |             |                   |
| Domestic             | 125              | 244            | 369         | -7                |
| Agriculture          | 15               | 26             | 41          | 0                 |
| Oil/Gas              | 0                | 21             | 21          | 0                 |
| Surface Impoundments | 5                | 13             | 18          | 0                 |
| Commercial           | 6                | 7              | 13          | 0                 |
| Golf Course          | 0                | 15             | 15          | 0                 |
| Livestock            | 12               | 25             | 37          | 0                 |
| Irrigation           | 0                | 6              | 6           | 1                 |
| Public Water         | 55               | 212            | 267         | 0                 |
| Monitoring           | 0                | 1              | 1           | 0                 |
| Total                | 218              | 570            | 788         | -6                |



# Red River Groundwater Conservation District

## Well Registration Summary As of April 30, 2018

| Well Type            | Total                          |                                 | Total RRGCD | New Registrations |
|----------------------|--------------------------------|---------------------------------|-------------|-------------------|
|                      | Total Registered Fannin County | Total Registered Grayson County |             |                   |
| Domestic             | 129                            | 250                             | 379         | 10                |
| Agriculture          | 15                             | 26                              | 41          | 0                 |
| Oil/Gas              | 0                              | 21                              | 21          | 0                 |
| Surface Impoundments | 5                              | 13                              | 18          | 0                 |
| Commercial           | 6                              | 7                               | 13          | 0                 |
| Golf Course          | 0                              | 15                              | 15          | 0                 |
| Livestock            | 12                             | 25                              | 37          | 0                 |
| Irrigation           | 0                              | 6                               | 6           | 0                 |
| Public Water         | 55                             | 215                             | 270         | 3                 |
| Monitoring           | 0                              | 1                               | 1           | 0                 |
| Total                | 222                            | 579                             | 801         | 13                |

ATTACHMENT 12

## **DRAFT OUTLINE OF HYDROGEOLOGICAL REPORT GUIDELINES**

### **I. Introduction**

- A. Hydrogeological Report must be included with an administratively complete application for any of the following:
  - (i) requests to drill and operate a proposed new well or well system with a proposed aggregate production capacity of greater than 200 gallons per minute;
  - (ii) requests to modify or increase an existing well or well system that would result in the existing well(s) being equipped to produce greater than 200 gallons per minute; and/or
  - (iii) variance to spacing for wells covered by (i) or (ii) above\*
- B. Purpose of report is to provide the District with hydrogeological information addressing the impacts of the proposed well on existing wells and in relation to the Desired Future Condition for the aquifer
- C. Reports submitted pursuant to District Rule \_\_\_\_\_ and these guidelines are required to be stamped by a Professional Geoscientist or Professional Engineer licensed in the State of Texas

### **II. Required Content of Hydrogeological Reports**

- A. Well Construction
  - 1. Details on all aspects of well
  - 2. Schematic well construction diagram
  - 3. Lithologic description of geology encountered during well drilling
  - 4. Location
    - (i) Maps showing location of property relative to county level and location of well relative to property boundaries and other relevant features
- B. Hydrogeologic Setting
  - 1. Identification of aquifer
  - 2. Surface and subsurface geology
    - (i) Occurrence of any significant groundwater recharge features such as outcrop, surface water bodies, caves, sinkholes, faults or other geologic features
    - (ii) Occurrence of hydrologic features, including streams or springs within ½ mile radius\*
  - 3. Depth interval of proposed water bearing zone; identify target production zone
  - 4. Anticipated thickness of water bearing zone



5. Whether the target production zone is anticipated to be confined or unconfined
6. Estimates of thickness of confining layer at well site location
7. Aquifer parameters at the well site, including transmissivity, hydraulic conductivity and storativity based on the Texas Water Development Board (TWDB) approved Groundwater Availability Model for the aquifer
8. Identify all wells within 1-mile radius of the proposed well using publicly-available well databases. Include streams or springs within 1-mile radius

#### C. Water Quality

1. Discussion of known quality in the area based on literature, well reports, etc...

#### D. Interference Analysis

1. Quantitative analysis that shows the projected impacts from proposed production.
  - (i) Simulation results showing drawdown at 24 hours, 30 days, and 1 year (contoured with the smallest contour equal to 1 foot water level decline).
    - a. Discussion of the methodology used for estimating drawdown, including software that was used, the assumptions and/or solution method employed.
    - b. Illustration and/or maps showing the estimated cone of depression; if there is more than one well in the group, two maps should be included:
      - a. contours for impacts from pumping the proposed well only, and
      - b. contours for impacts from all wells in the system.
    - c. For well systems - discussion of the amount/degree of interference that each of the system wells may exert on other system wells
    - d. Discussion of the estimated impacts on existing wells in the area of influence

#### E. DFC/MAG Analysis

1. Discussion of the proposed pumping amount in relation to the MAG, as well as the impact of the proposed pumping on the adopted DFC

### III. Post-Drilling Requirements

#### A. Mandatory requirements

Geophysical logs required to be submitted post completion (mandatory)

1. Geophysical logs to consist of a resistivity or induction curve and a spontaneous potential or gamma ray curve at a minimum. Geophysical logs performed in the initial open-borehole are required and will consist of

resistivity, self potential and gamma ray at a minimum. Wells cased with PVC require induction and gamma ray logs

2. All digital log files to be submitted in LAS format as well as printed

3.

B. Provide if available

a. Digital or tabulated data of water levels measured during drawdown, specific capacity, or pumping test

b. field parameters of specific conductivity, temperature and pH of measurements made during the drawdown or pumping test.

c. Any laboratory analysis completed on samples collected from the well after construction and development

C.

#### **IV. Additional Construction Requirements**

A. Measuring tube at least one inch in diameter to be installed from the well head to the bottom most screen interval in all new wells producing greater than 200 gpm

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