NORTH TEXAS GROUNDWATER CONSERVATION DISTRICT

BOARD MEETING

CITY OF KRUM
CITY COUNCIL CHAMBERS
146 W. MCCART ST.
KRUM, TX 76249

TUESDAY FEBRUARY 11, 2014 9:30 AM

NOTICE OF PUBLIC MEETING

OF THE BOARD OF DIRECTORS of the

NORTH TEXAS GROUNDWATER CONSERVATION DISTRICT

at the

City of Krum
City Council Chambers
146 W. McCart St
Krum, TX 76249
Tuesday, February 11, 2014 at 9:30 a.m.

Board Meeting

Notice is hereby given that the Board of Directors of the North Texas 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. Pledge of Allegiance and Invocation.
- 2. Call to order, establish quorum; declare meeting open to the public.
- 3. Approval of minutes from the January 14, 2014, board meeting.
- 4. Consider and act upon approval of invoices and reimbursements.
- 5. Receive reports from the following Committees*:
 - a. Budget and Finance Committee
 - 1) Receive Monthly Financial Information
 - 2) Consider and act upon audit proposals for fiscal year ending December 31, 2013
 - b. Investment Committee
 - c. Rules and Bylaws Committee
 - d. Groundwater Monitoring and Database Committee
 - e. Policy and Personnel Committee
 - f. Conservation and Public Awareness Committee
 - g. Management Plan Committee
 - 1) Receive quarterly report
 - 2) Receive annual report
- 6. Consider and act upon proposal from Dr. Zac Hildenbrand for the UT-Arlington Barnett Shale study.
- 7. Update and possible action on the Northern Trinity/Woodbine Aquifer GAM Overhaul Project and the development of proposed Desired Future Conditions (DFCs).
- 8. Update and possible action regarding the process for the development of Desired Future Conditions (DFCs) including the consideration and possible approval of consulting services.

- 9. Consider and act upon request to waive registration fees.
- 10. Consider and act upon request for clarification of Temporary Rules regarding domestic use exemption.
- 11. Consider and act upon compliance and enforcement activities for violations of District Rules.
- 12. General Counsel's Report:
 - a. Update and possible action on the status of groundwater-related case law, including Texas Supreme Court review of *Edwards Aquifer Authority v. Bragg* case.
 - b. Update on groundwater legislative activities.
 - c. Other legal matters.
- 13. General Manager's Report: The General Manager will update the board on operational, educational and other activities of the District.
- 14. Public comment.
- 15. Open forum / discussion of new business for future meeting agendas.
- 16. Adjourn public meeting.
- * Reports from District standing committees will include a briefing by each committee for the Board on the activities of the committee, if any, since the last regular Board meeting.

The above agenda schedules represent an estimate of the order for the indicated items and is subject to change at any time.

These public meetings are available to all persons regardless of disability. If you require special assistance to attend the meeting, please call (855) 426-4433 at least 24 hours in advance of the meeting to coordinate any special physical access arrangements.

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 North Texas 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.

ATTACHMENT 3

MINUTES OF THE BOARD OF DIRECTORS' PUBLIC MEETING NORTH TEXAS GROUNDWATER CONSERVATION DISTRICT

TUESDAY, JANUARY 14, 2014

CITY OF KRUM CITY COUNCIL CHAMBERS 146 W. MCCART ST KRUM, TX 76249

Members Present:

Thomas Smith, Philip Sanders, Ronny Young, Chris Boyd, Dan Collins,

Eddy Daniel, Evan Groeschel, Kenny Klement, Ron Sellman

Members Absent:

None

Staff:

Jerry Chapman, Drew Satterwhite, Carolyn Bennett and Carmen Catterson

Visitors:

Bob Fazen, Citizen

Zacariah Hildenbrand, Inform Environmental & UT Arlington

Keith King, The Weekly News of Cooke County

Barry McDonald, Citizen

Shawn McGlothlin, Texas Instruments Mark McPherson, McPherson Law Firm

Neal Welch, City of Sanger

1. Pledge of Allegiance and Invocation

President Smith led the Pledge of Allegiance and Secretary/Treasurer Young led the invocation.

2. <u>Call to order, establish quorum; declare meeting open to the public</u>

President Smith called the public meeting to order at 9:36 AM. All Board members were present except Board Member Daniel and Vice President Sanders.

Vice President Sanders arrived at 9:37 AM.

3. Approval of Minutes from the November 12, 2013, public hearing and board meeting

Young motioned to approve the Minutes from the November 12, 2013 board meeting. The motion was seconded by Sellman and passed unanimously with Board Members Boyd and Groeschel abstaining and with Board Member Daniel absent.

Board Member Daniel arrived at 9:38 AM.

4. Public Comment

Bob Fazen addressed the Board and thanked them for providing the agendas to the public each month. He thanked the Board for including consideration of the UT Arlington groundwater study on the agenda for consideration. He expressed his belief that the study could provide additional information that would show that the oil and gas fracking are affecting groundwater quality. He also stated that he understood that the study could show that the groundwater is not affected. Mr. Fazen provided his support in the project and stated that the groundwater production fee might need to be raised to support the project, but it would be a worthwhile increase.

5. Consider and act upon approval of invoices and reimbursements.

Mr. Chapman provided information about the invoices, which are all routine. Board Member Groeschel inquired about the Lloyd Gosselink invoice and the services provided. The Board requested the staff email the Lloyd Gosselink invoice to the Board for review and possible discussion at the next meeting.

Board Member Daniel motioned to approve the invoices as presented for a total cost of \$55,889.08. The motion was seconded by Board Member Boyd and passed unanimously.

6. a. <u>Budget and Finance Committee</u>

1) Receive Monthly Financial Information

Mr. Satterwhite reviewed the monthly financial information. He explained that the report does not include the fourth quarter billing. The loan balance due will be reduced when the audit is complete to reflect the \$45,000 paid in September 2013. The expenses are approximately 5% below budget. The final revenue will be reflected in the audit. Board Member Boyd asked if there were any entities that had never paid. Mr. Chapman responded that there are no remaining entities that have never provided payment to the District. But there are nine entities that have not paid for the third quarter.

b. Investment Committee

No report received

c. Rules and Bylaws Committee

No report received

d. Groundwater Monitoring and Database Committee

No report received

e. Policy and Personnel Committee

No report received

f. Conservation and Public Awareness Committee

No report received

g. Management Plan Committee

No report received

7. <u>Update and possible action on the Northern Trinity/Woodbine Aquifer GAM Overhaul Project and the development of proposed Desired Future Conditions (DFCs)</u>

Board Member Daniel explained that the project is moving forward nicely on target. The GAM is now ready to be used for test runs. The Groundwater Management Area 8 (GMA 8) meeting will be held on January 21st. At that meeting, the committee plans to announce that the GAM will be used to run scenarios. The consultants plan to announce that the model is now ready to be used and will request information from the other groundwater conservation districts to see how the DFCs look across GMA 8. The completion of the GAM should coincide nicely with the new DFC process. Each groundwater district will adopt a DFC and then the GMA 8 must approve the DFCs before they are sent to the Texas Water Development Board (TWDB). The new Modeled Available Groundwater (MAG) information will be incorporated into the new regional water plan, which will then be incorporated into the new State Water Plan.

Board Member Klement commented on the state of aquifers around the country. He also discussed the Environmental Protection Agency's (EPA's) efforts to control groundwater nationally. He expressed a belief that if an area was determined to be in dire need of water, the EPA could issue requirements for water to be pumped to that area from a different state.

8. <u>Update and possible action regarding the process for the development of Desired Future Conditions (DFCs) including the consideration and possible approval of consulting services</u>

With the DFC process beginning, the Board has discussed hiring a representative for the District. Board Member Daniel has discussed hiring Mr. James Beech with LBG Guyton to represent the District in the DFC process. The first choice would have been INTERA, but they are already engaged by the Upper Trinity GCD. The second choice was LBG Guyton, who is currently working with the Clearwater UWCD and Prairielands GCD, but because of the geographic location of each district, there is no conflict. The contract with LBG Guyton would be funded by the North Texas GCD. If the DFCs are not backed up with good science, they will not be defensible.

Board Member Klement asked why the Upper Trinity GCD would be a conflict for INTERA. Board Member Daniel explained that because water generally flows from west to east, a conflict could be experienced. The Board discussed the benefits of hiring LBG Guyton. Board Member Collins stated that the first choice would have been INTERA, but the second choice was LBG Guyton.

Vice President Sanders motioned to authorize the president to execute the agreement with LBG Guyton subject to review by the District's legal counsel and to authorize the president to negotiate a longer contract for the entire project length. The motion was seconded by Board Member Klement and passed unanimously with President Smith abstaining. President Smith commented that his firm has been hired to consult on a project in South Texas and he felt that his vote would be a conflict of interest.

Board Member Daniel commented that Mr. Bill Mullican has provided a proposal to represent GMA 8 to help with the DFC process. The contract would be paid for by all the districts in GMA 8. Mr. Mullican is the current contract manager for the GAM update and is very familiar with the project. The Board agreed unanimously that a contract manager for the DFC process was necessary.

9. Consider and take action regarding hiring and/or terminating legal counsel

Mr. Satterwhite explained that this item was tabled at the November meeting pending a contract from Sledge Fancher, PLLC. In October, Brian Sledge alerted the District that he was leaving Lloyd Gosselink and starting a new firm. The same day a call was received from Lloyd Gosselink requesting the District to stay with their firm. A contract has been received from Mr. Sledge with the same rate for all principles and only a \$5 per hour increase for the paralegal.

Board Member Daniel commented that Ty Embry from Lloyd Gosselink called him and assured that Lloyd Gosselink has retained groundwater staff. Board Member Groeschel expressed that staying with Mr. Sledge and his team are familiar with the District. Mr. Satterwhite explained that the Red River GCD Board

Board Member Collins motioned to terminate the contract with Lloyd Gosselink Firm and to authorize the president to execute the contract with Sledge Fancher, PLLC pending legal review. The motion was seconded by Vice President Sanders. Board Member Boyd stated that he did not feel highly opinionated either way, but Lloyd Gosselink is a long-time well respected firm in Austin. He expressed concern in terminating a contract with a well-established firm. Vice President Sanders commented that the firm is made of people with individual talents. He stated that he believes more with people than the name of the firm on the letterhead. He expressed confidence in Mr. Sledge and his team. Board Member Collins stated that he agreed with Board Member Boyd in the faith in the firm. But, the groundwater team at Lloyd Gosselink was composed primarily of Mr. Sledge and his team. The Board continued to discuss the merits of each firm. The motion passed unanimously.

10. <u>Consider and discuss information from Dr. Zac Hildenbrand on the UT-Arlington Barnett Shale study</u>

Mr. Chapman explained that he and Mr. Satterwhite were at a meeting where Dr. Hildenbrand provided a presentation on his work in the Barnett Shale performing groundwater testing. Dr. Hildenbrand has been researching contamination in the aquifer from hydraulic fracturing and injection wells. However, there was very little research on this subject initially. In 2011, he and his partner purchased testing equipment and performed 100 samples. In their

sampling, they learned that the closer to hydraulic fracturing sites, the higher levels of arsenic, selenium, barium and other contaminants. Dr. Hildenbrand explained that the new study is in coordination between UT Arlington and UT Austin. His team is studying the chemicals contained in the samples, while UT Austin will be studying the dissolved solids and metals. His team has been requested to expand the study area by several groundwater districts. They are up to 550 samples at this time. He explained that the study is also hoping to develop methods of decontaminating any groundwater that does have a contamination event.

Board Member Klement asked if water that has been used for fracking could be cleaned and used as drinking water. Dr. Hildenbrand explained that carbon filtering is available to clean water of salinity. There is one firm that is working toward a goal of offering filters for free, but they would own the rights to anything filtered out of the water, including precious metals. Dr. Hildenbrand explained that his study is based on the effects on the environment from unconventional drilling. When he first started the study in 2011, he needed 100 samples and expected the process of finding volunteers to take 6-8 weeks. However, he received 1500 inquiries in the first 24 hours.

Secretary/Treasurer Young asked how the 100 sites would be selected. Dr. Hildenbrand explained that all requests for sampling would be plotted on Google Earth and then used to collect samples from across the entire area. Vice President Sanders asked if the study could be subject to criticism and if it could be considered opinionated one way or another. Dr. Hildenbrand stated that he and his team have worked very hard to maintain neutrality. Board Member Boyd stated that the fracking formulas are very proprietary and secret. Without having baseline samples before the fracking began, how could the study show that the contamination was caused by the fracking? Dr. Hildenbrand explained that the study will use forensic science to determine contaminants in the water. Certain chemicals are industry specific, which can provide an assumption that the chemicals came from fracking activities. His study will not provide the assumptions, only the science.

Board Member Boyd asked if Dr. Hildenbrand would be willing to uphold his position in support of the science. Dr. Hildenbrand explained that he has received death threats if he continues the study. His life has been dedicated to the study for the past three years and he is completely dedicated to the seeing the project reach its conclusion.

The test sites would be chosen to provide some locations near hydraulic fracturing and injection wells and some a certain distance away to provide a combination of reports on the quality of the groundwater. The study will only explain the science and what they find. They hope to be able to determine the relationship between drilling and water quality, but a perfect correlation will be unlikely due to the way that aquifers are structured.

Board Member Boyd asked if the study was being sponsored by the university or Dr. Hildenbrand's private company. Dr. Hildenbrand explained that the study was collaboration. While he is a collaborative scientist for the university, they only pay for the sampling and not his salary. The contract would be with his private company and the funds would be disseminated to the university. Vice President Sanders asked how the District's participation would affect the study. Dr. Hildenbrand explained that the study would be beneficial in that it would expand the study parameters and area explored, in addition to providing the District with analysis of the

groundwater from more than 100 wells. The final deliverable is expected to be complete September 1, 2014.

The Board continued to discuss the study in order to obtain water quality data. Vice President Sanders stated that he was not interested in being associated with a movement that has a specific agenda and that contests the leadership in the State. Board Member Collins stated that he is interested in the water quality and what the District can do with the water quality to improve any potential problems. He expressed that the District is charged with determining the amount of water available, but also to determine the quality of the water and what might be possible to improve the quality of the water for future generations.

It was the consensus of the Board for Dr. Hildenbrand to provide a proposal for consideration at the February Board meeting.

11. <u>Consider and act upon nominations for Places 1, 2 and 3 of the Board of Trustees of the TWCA Risk Management Fund</u>

The time for nominations has passed, but the request for elections has been received. Mr. Chapman recommended the Board vote for the recommended nominees.

Secretary/Treasurer Young motioned to authorize the president to submit the ballot for the nominees. The motion was seconded by Board Member Boyd and passed unanimously.

12. General Manager's Report

The staff is working to separate the registered wells by county and use. The Board requested that the staff include a breakout of wells that have been completed in the previous month for both exempt and non-exempt.

A letter was received from the Cross Timbers WSC about a well they drilled in 2013. This will be included for action in February.

Audit proposals have been solicited and two have been received to date. The staff is expecting to receive two or three more. The proposals will be provided to the Board in February for action to be taken to engage a firm.

Mr. Chapman and Mr. Satterwhite are scheduled to attend a water meeting in Austin on January 23 and 24.

Mr. Chapman again emphasized the need to focus on the development of DFCs. Two entities have already expressed differing opinions on the state of the aquifer.

Mr. Chapman's retirement is currently scheduled for March 31st. President Smith thanked Mr. Chapman for his service.

13. Open Forum / discussion of new business for future meeting agendas

Board Member Collins asked the Board if, in addition to the proposal to fund Dr. Hildenbrand's study, to request additional information on developing a comprehensive water quality monitoring program including a cost breakdown. Dr. Hildenbrand agreed to provide the proposal for consideration at an upcoming meeting.

The next meeting will be held on February 11, 2014 at 9:30 AM at Krum City Hall.

12.	<u>Adjourn</u>	public	meeting

The public meeting adjourned at 11:30 A	M.
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Recording Secretary	Secretary-Treasurer

ATTACHMENT 5 A-2



AGENDA COMMUNICATION

DATE: February 4, 2014

SUBJECT: AGENDA ITEM NO. 5A-2

CONSIDER AND ACT UPON AUDIT PROPOSALS FOR FISCAL YEAR ENDING DECEMBER 31, 2013

ISSUE

Consider and act upon audit proposals for fiscal year ending December 31, 2013

BACKGROUND

The Board had previously instructed the staff to solicit proposal for audit services for the fiscal year ending December 31, 2013. The staff initiated invitations to several firms in North Central Texas. As a result of that solicitation, four proposals were received.

OPTIONS/ALTERNATIVES

The Board has the option of selecting the firm they believe best meets their needs and is not restricted to the lowest cost proposal solicited since this is a professional service.

CONSIDERATIONS

Of the four proposals received, the lowest cost proposal was submitted by McClanahan and Holmes, LLP of Bonham, Texas. The second lowest was submitted by Hankins Eastup Deaton Tonn & Seay of Denton, Texas.

STAFF RECOMMENDATIONS

The staff was impressed by the quality and presentation offered by the Hankins Eastup Deaton Tonn & Seay firm of Denton, Texas.

ATTACHMENTS

Audit proposals received

PREPARED AND SUBMITTED BY:

Debi Atkins, Finance Officer

North Texas Groundwater Conservation District

McClanahan and Holmes LLP	\$4,750
Hankins Eastup Deaton Tonn & Seay	\$5,000
Rutherford Taylor & Company	\$5,150
Schalk & Smith PC	\$5,500

McClanahan and Holmes, LLP CERTIFIED PUBLIC ACCOUNTANTS

R. FRANK RAY, CPA R. E. BOSTWICK, CPA STEVEN W. MOHUNDRO, CPA GEORGE H. STRUVE, CPA ANDREW B. REICH, CPA RUSSELL P. WOOD, CPA 228 SIXTH STREET S.E. PARIS, TEXAS 75460 903-784-4316 FAX 903-784-4310

304 WEST CHESTNUT DENISON, TEXAS 75020 903-465-6070 FAX 903-465-6093

1400 WEST RUSSELL BONHAM, TEXAS 75418 903-583-5574 FAX 903-583-9453

Paris, Texas January 9, 2013

North Texas Groundwater Conservation District 5100 Airport Drive Denison, Texas 75020-8448

In response to your request for proposal for audit services to perform the audit of North Texas Groundwater Conservation District for the year ended December 31, 2013, we shall appreciate your consideration of McClanahan and Holmes, LLP for the performance of the engagement. We fully understand the requirements of the audit services to be performed, and can complete the audit within a reasonable time period. Accompanying this letter are several documents that should assist you in your evaluation of our Firm and our ability to perform this engagement. Our fees, including out-of-pocket expenses, should not exceed \$4,750 for the audit report.

Any questions concerning this document should be addressed to:

Andrew B. Reich, CPA McClanahan & Holmes, LLP 228 6th Street S.E. Paris, Texas 75460 Phone: (903) 784-4316 areich@mchcpa.net

Sincerely,

McClanahan and Holmes, LLP

Mc Clandran and Walnu, LCP

Profile of the Independent Auditor

McClanahan and Holmes, LLP, a local firm, was organized as a partnership in 1952 and has grown to a six-partner firm with three operating offices in Denison, Bonham and Paris. In addition to our partners, our professional staff consists of five CPAs and six degreed professionals. All three of our offices offer services to our clients in accounting, auditing, tax, and management advisory services. All of our partners and professional staff on this engagement will have extensive experience in governmental audits, as well as the capability to audit computerized data collection and financial transaction processing and reporting systems. The engagement partner will be Andrew B. Reich. We will employ the necessary resources from our Firm to meet your timetable for issuance of the audit report.

Our Firm is properly licensed to practice public accounting in the state of Texas, and meets the independent requirements of the *Standards for Audit of Governmental Organizations, Programs, Activities and Functions.* Our Firm has had no federal or state desk reviews or field reviews of its audits during the past five years. In addition, our Firm has had no disciplinary action taken against it by any state or federal regulatory body or professional organization.

Our Firm will follow applicable standards promulgated by the American Institute of Certified Public Accountants, including "Interpretation 501-3, Failure to Follow Standards and/or Procedures or Other Requirements in Governmental Audits." In the performance of this audit, our Firm will follow the requirements of the Governmental Accounting Standards Board.

Proposer's Approach to the Examination

Scope

If retained, our audit will be conducted in accordance with auditing standards generally accepted in the United States of America and Governmental Auditing Standards issued by the Comptroller General of the United States; and accordingly, will include such tests of the accounting records and such other auditing procedures as are considered necessary in the circumstances. At the conclusion of our audit, we will express our opinion on the fair presentation of the basic financial statements of North Texas Groundwater Conservation District in conformity with accounting principles generally accepted in the United States of America.

A separate report titled "Required Auditor Communication with Those Charged with Governance" will be issued in accordance with the requirements of Statement on Auditing Standards No. 114.

All working papers and reports will be retained, at our expense, for a minimum of five years, unless we are notified in writing by North Texas Groundwater Conservation District of the need to extend the retention period. We will make working papers available, upon request, to parties as required by North Texas Groundwater Conservation District.

We will be responsible for providing any proposed adjusting entries to management for review and acceptance. We will also provide a list of immaterial audit differences, if any, not proposed for adjustment. We will supply North Texas Groundwater Conservation District with a draft of the audit report for review by management prior to issuance. We will provide the required number of copies of the signed audit opinion and related reports, and be available for an exit conference with management and/or board members.

Audit Approach

Our audit will be planned and performed using PPC audit programs and checklists as guidelines that will then be tailored as necessary to fit the operations of North Texas Groundwater Conservation District. The majority of the audit procedures will be performed at your office.

During the planning phase of the audit, we will require the staff to assist in the preparation of our internal control documentation schedules. This work will also involve documenting our understanding of North Texas Groundwater Conservation District's transaction cycles for significant operations. Based on our understanding of the internal controls, performing preliminary analytical procedures, making inquiries of management, and reviewing preliminary financial information, we would then assess the audit risk for account balances and classes of transactions.

At this stage of our audit, we would develop specific audit procedures designed to reduce the audit risk to acceptable levels. We would then determine staff assignments based on difficulty of each audit area, and sample sizes for tests of internal controls and compliance tests. We will not perform any statistical sampling.

Based on our discussion with management of North Texas Groundwater Conservation District, we do not anticipate any unusual audit issues. We anticipate that we would require support from your staff in the areas of client-prepared audit schedules, availability to answer questions, and providing copies of documents requested by us during the course of the audit.

Summary of the Proposer's Qualifications

Partner and Staff Qualifications and Experience

Following is a brief resume of audit personnel most likely to be assigned to the engagement:

Andrew B. Reich, graduated East Central Oklahoma State University (B.S. – Accounting 1984). He received his certificate in 1990 and became a partner in 1992. He has more than twenty years of experience in governmental accounting and auditing. He will be the engagement partner.

Michelle L. Kyzar, graduated cum laude from Southeastern Oklahoma State University (B.B.A. – Accounting 2001). She was employed by our Firm in May 2001.

<u>Christie M. Joseph</u>, graduated magna cum laude from Midwestern State University (B.B.A. – Accounting 1998). She was employed by our Firm in November 2010.

All of our professional staff are required to complete a minimum of 40 hours of continuing education annually. Professional staff that will be assigned on governmental audits are required to complete as least 12 of their 40 hours in subjects directly related to the government environment and to government auditing. Our Firm is in compliance with continuing education requirements of the Private Companies Practice Section of the American Institute of Certified Public Accountants, applicable State Society requirements, and the *Government Auditing Standards* as issued by the U. S. General Accounting Office.

Similar Engagements with Other Government Entities

We have provided auditing services to a number of municipalities, state agencies and Special Utility Districts and Municipal Utility Districts, many of which are subject to Government Auditing Standards and/or the Single Audit requirements.

List of Governmental Clients

Following is a list of government clients for which we performed auditing services within the past 2 years:

Bonham Independent School District

Audited 20+Years

Dr. Marvin Beaty, Superintendent 903.583.5526, Ext. 1100 Ms. Janette Owens, Former Director of Finance 903.583.0740

Paris Junior College

Audited 20+Years

Dr. Pamela Anglin, President
903.785.7661

Mr. John Eastman, Former Vice-President Business Services
903.785.7661

Ms. Keitha Carlton, Controller
903.785.7661

City of Paris

Audited 20+Years

Mr. Gene Anderson, Finance Director 903.785.7511

• City of Bonham

Audited 20+Years

Mr. Bill Shipp, City Manager 903.583.7555 Ms. Janell Jamieson, City Secretary 903.583.7555

McClanahan and Holmes, LLP currently provides audit services for these additional entities:

- City of Cooper
- City of Dodd City
- City of Honey Grove
- City of Leonard
- City of Savoy
- City of Trenton
- City of Whitewright
- Bonham Economic Development Corporation
- Paris Economic Development Corporation
- Fannin County Appraisal District
- Grayson Central Appraisal District
- Bois D'Arc Municipal Utility District
- Southwest Fannin Special Utility District

PROPOSAL FOR INDEPENDENT AUDIT SERVICES FOR NORTH TEXAS GROUNDWATER CONSERVATION DISTRICT FOR THE YEAR ENDING DECEMBER 31, 2013

SUBMITTED BY
HANKINS, EASTUP, DEATON, TONN & SEAY
A PROFESSIONAL CORPORATION
CERTIFIED PUBLIC ACCOUNTANTS
902 N. LOCUST
P.O. BOX 977
DENTON, TEXAS 76202
(940) 387-8563

CONTACT PERSON: CARL DEATON

JANUARY 28, 2014

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MEMBERS;

AMERICAN INSTITUTE OF
CERTIFIED PUBLIC
ACCOUNTANTS

TEXAS SOCIETY OF CERTIFIED
PUBLIC ACCOUNTANTS

HANKINS, EASTUP, DEATON, TONN & SEAY

A PROFESSIONAL CORPORATION

CERTIFIED PUBLIC ACCOUNTANTS

902 NORTH LOCUST P.O. BOX 977 DENTON, TEXAS 76202-0977

> TEL. (940) 387-8563 FAX (940) 383-4746

January 28, 2014

Board of Directors North Texas Groundwater Conservation District Denison, Texas 75020

Members of the Board:

We are pleased to submit to you this proposal for independent audit services for the North Texas Groundwater Conservation District (the "District") for the year ending December 31, 2013.

We feel that Hankins, Eastup, Deaton, Tonn & Seay, PC is uniquely qualified to serve the District as its independent auditors. We serve as independent auditors for Argyle Water Supply Corporation, Cross Timbers Water Supply Corporation and Bolivar Water Supply Corporation. We also serve as independent auditors for Clear Creek Watershed Authority and Denton County Emergency Services District #1, and for several cities and towns including the Town of Double Oak, City of Lake Dallas, Town of Hickory Creek, Town of Ponder, and the Town of Paradise. Some of these local government entities have water and/or sewer operations. We have experience with the use of Assyst software, as one of our city audit clients uses that software for utility billing and general ledger purposes.

We serve as independent auditors for over twenty-five school districts including Denton ISD, Sanger ISD, Pilot Point ISD, Lindsay ISD, Krum ISD, Ponder ISD and Valley View ISD. We audit many local nonprofit organizations in the Denton County area. Our diverse group of audit clients provides us the experience to assist you as your district faces new challenges and future growth. Our firm size allows us to provide the service and dedicated support you need.

Our staffing sets us apart from other firms. The proposed audit team includes two partners who will be assigned to your audit. One partner will be at your location and will perform all of the fieldwork. The second partner will be involved in planning and will be the in-house reviewer of the audit results and audit report. This level of experience on your audit team minimizes the disruption of your accounting staff during the audit, as inexperienced staff are not assigned to the audit, and also provides a resource for the District throughout the year.

The purpose of our engagement will be to audit the basic financial statements of the District as of and for the year ending December 31, 2013. Other information

accompanying the basic financial statements will be subject to the auditing procedures applied in the audit of the basic financial statements, except for Management's Discussion and Analysis, which will be unaudited.

Our audit will be conducted in accordance with auditing standards generally accepted in the United States of America and the standards for financial audits contained in Government Auditing Standards, issued by the Comptroller General of the United States and will include tests of the accounting records of the District and such other procedures as we consider necessary to enable us to express an unqualified opinion that the financial statements are fairly presented, in all material respects, in conformity with accounting principles generally accepted in the United States of America, and also to report on the District's compliance with laws and regulations and on internal controls as required under Government Auditing Standards. If our opinion is other than unqualified, we will discuss the reasons therefore with you in advance. Our auditing procedures will include tests of documentary evidence supporting the transactions recorded in the accounts, and may include direct confirmation of receivables and certain other assets and liabilities by correspondence with creditors and financial institutions. We will request written representations from your attorneys as part of the engagement, and they may bill you for responding to this inquiry.

At the conclusion of our audit, we will also request certain written representations from you about the financial statements and related matters. Such representations will include matters relating to compliance with state and local laws and regulations.

An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements; therefore, our audit will involve judgment about the number of transactions to be examined and the areas to be tested. Also, we will plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. However, because of the concept of reasonable assurance and because we will not perform a detailed examination of all transactions, there is a risk that material errors, irregularities, or illegal acts, including fraud or defalcations, may exist and not be detected by us.

It is our understanding that you will provide us with the basic information required for our audit and that you are responsible for the accuracy and completeness of that information. We will advise you about accounting principles and assist you by preparing the financial statements included in the audit report, but the responsibility for the financial statements remains with you. This responsibility includes the maintenance of adequate records and related controls relevant to an audit of financial statements, the selection and application of appropriate accounting principles, and the safeguarding of assets.

Because, in addition to our report on the basic financial statements, the scope of the engagement includes an audit in accordance with *Government Auditing Standards* we are required to issue a report on compliance with federal and state/local laws and regulations, including legal compliance, and on your system of internal control. This report may be accompanied by observations (findings) on your compliance or on your system of internal control, if the results of our audit procedures require such observations or reporting of questioned costs.

We will maintain the audit documentation for a minimum of five years from the date of our reports. This audit documentation will be available to representatives of the United States

General Accounting Office upon their request and after they have properly notified you of their request to review the audit documentation.

Hankins, Eastup, Deaton, Tonn & Seay, PC, accepts responsibility for ensuring that the audit is conducted by personnel who collectively have the necessary skills, that independence is maintained, that applicable standards are followed in conducting the audit, that the firm has an appropriate internal quality control system in place and maintains participation in an external quality control review program.

We confirm that we are independent with respect to North Texas Groundwater Conservation District. None of our partners, managers or staff have any direct or indirect financial interest in District contracts, and no one assigned to the audit is related within a prohibited degree (as defined by nepotism law) to any employee of the District or to any of the board members.

This document defines the proposed arrangements as we understand them. Any additional representations on our behalf can be obtained by contacting Carl Deaton, 902 N. Locust, P.O. Box 977, Denton, Texas 76202, (940)-387-8563, Fax (940)-383-4746. Please let us know if any clarification or additional information is needed.

Yours very truly,

Hankins, Eastup, Deaton, Tonn & Seay A Professional Corporation

Hembine, Eastup, Deaton, Tom + Sony

Certified Public Accountants

Proposed Method to Conducting the Audit

The audit approach to be used is determined to some degree by the overall level of assurance the auditor feels is needed in the existing circumstances. Factors such as organizational structure, quality of administrative personnel, internal control structure, risk analysis, and results of prior year audits are considered in developing a preliminary risk assessment. That risk assessment tentatively determines the amount and types of tests to be performed and audit evidence to be collected.

We can speak in general terms, that if an internal control structure is in place, and our testing shows that it is continuing to function properly, the following procedures would be performed:

- Extensive substantive testing of balance sheet accounts, including but not limited
 to the following: confirmation of cash and investment balances, vouching of
 receivables and payables and possible confirmation of balances, analysis of
 prepaid accounts, vouching of fixed asset additions, testing of salary and other
 accruals, verification of borrowing activity, if any, and confirmation of ending
 balances, and analysis of fund balances.
- Analytical review of revenues and expenditures (actual vs. budget; actual vs. prior year), plus detailed testing of certain items, including but not limited to the following: payroll expenditures, revenues, and other expenditure categories as warranted.

We would begin the audit engagement with a meeting with the Finance Officer to inquire if there are any areas of concern in which the District desires us to perform special or additional procedures. Through regular contact with the District during the year, we should already be aware of the general condition of the District for subsequent audits, and any significant events which occurred during the year.

Type of Firm

Hankins, Eastup, Deaton, Tonn & Seay, PC (a Professional Corporation) is a local firm located in Denton, Texas. The firm was established in November, 1966, and currently has 14 employees, 6 of which are CPA's.

Audit Experience

Our firm has been performing school district and nonprofit audits since 1968, city audits since 1977 and tax appraisal districts audits since 1980. Over 95% of our 70 current audit clients are nonprofit or local government units that include school districts, cities, water districts, appraisal districts, education foundations and other non-profit organizations including charitable organizations. We have experience with the use of Assyst software, as one of our city audit clients uses that software for utility billing and general ledger purposes. Our large, diverse group of audit clients provides us a depth of experience we believe is unparalleled in a firm our size. Yet our firm size allows us to provide all of our clients the service and dedicated support they need.

The following is a partial list of our current audit clients along with names and telephone numbers of people you can contact for references.

Entity	Years	Contact	Telephone
Denton ISD	36	Debbie Monschke, Finance Director	(940) 369-0010
Grapevine – Colleyville ISD	4	DaiAnn Mooney, Dir. of Financial Services	(817) 251-5582
Eagle Mountain - Saginaw ISD	5	Jane Valdez, Director of Business	(817) 232-0880
Argyle Water Supply Corp	8	Randall Davis, General Manager	(940) 464-7713
Bolivar Water Supply Corp	10	Polly Kruger, Office Manager	(940) 458-3931
Cross Timbers Water Supply Corporation	12	Lloyd Hanson, Controller	(940) 584-0780
Denton Central Appraisal District	19	Rudy Durham, Chief Appraiser	(940) 566-0904
Cooke County Appraisal District	4	Doug Smithson, Chief Appraiser	(940) 665-7651
Lake Dallas ISD	20	Wes Eversole, Asst. Supt. of Operation and Finance	(940) 497-4039
Little Elm ISD	12	Linda Engle, Exec Director for Bus. & Operations	(972) 617-2941
Clear Creek Watershed Authority	6	Phil Holland, Board President	(972) 951-2235
Denton County Emergency Svcs District #1	5	Jon Donahue, Treasurer	(214) 755-1211
Krum ISD	15	Darla Putman, Business Manager	(940) 482-6000
Pilot Point ISD	5	Nikki Hamblin, Business Manager	(940) 686-8706

Valley View ISD	6	William Stokes, Superintendent	(940) 726-3659
Sanger ISD	9	Kent Crutsinger, Superintendent	(940) 458-5140
Ponder ISD	5	Bruce Yeager, Superintendent	(940) 479-8200
Argyle ISD	7	Elizabeth Stewart, CFO	(940) 464-7241
Lindsay ISD	7	DeAnne Page, Business Manager	(940) 668-2662
Lewisville ISD Education Foundation	9	Connie Pelphrey, Executive Director	(972) 353-4967

We encourage you to check with our existing clients for references as to the excellent level of service provided to these audit clients. As you can see, we have served as auditor for several of these entities for many years. If you need any additional information on our existing clients or references, or need additional references, please let us know.

Proposed Audit Team

A CPA partner of our firm will be on site and conduct all of the field work. A second CPA partner will serve as a third party reviewer.

The partner in charge of the audit will be Carl Deaton, who will plan the audit, conduct the fieldwork, and report on the engagement. Mr. Deaton has an MBA in accounting and has been a licensed CPA in Texas since 1981. He has conducted school district, city and nonprofit audits since 1981, and has served as a reviewer for GFOA, reviewing CAFR's submitted to GFOA by school districts and cities.

Jerry Eastup, another partner in the firm, will assist in planning and reviewing workpapers and the report. Mr. Eastup has a BBA in accounting and has been a licensed CPA in Texas since 1976. He has conducted school district and nonprofit audits since 1978.

Both members of the audit team are members of the Texas Society of CPA's and the American Institute of CPA's. Both have completed their continuing professional education requirements as required by the State Board of Public Accountancy. Each has also completed at least forty hours of governmental auditing continuing education each of the last several years as prescribed by the GAO "Yellowbook".

Assistance from District Personnel

Assistance would be expected in pulling invoices and other documents which we would need to examine and in being available to answer questions.

Former Governmental Clients

There have been no school districts or nonprofit organization clients in the past several years that have become former audit clients. During the past ten years we have done the city audit for the cities of Justin and Sanger, each for a couple of years, but it was our choice to discontinue each engagement due to time constraints we experienced during the Fall. We audited the City of Aubrey for approximately 20 years, through the 9/30/12 audit, at which time the City changed auditors after having a change in mayor, city secretary and accountant during that year. We worked one year with the current city secretary at the City of Aubrey, Isaac Linton, and he can be reached at 940-440-9343 if you wish to contact him.

Proposed Fee Schedule

Budgeted hours would be as follows for the financial statement audit:

Staff	Function	Estimated Hours
- Can	, and	
Carl Deaton, Partner	Planning	8
	Fieldwork	20
	Audit report	8
Jerry Eastup, Partner	Planning	2
	Review	2
		40

Members of our audit service team are always available for meetings throughout the year. The references listed can also verify our accessibility by telephone. Mr. Deaton and Mr. Eastup have always been prompt in returning telephone calls and are always willing to schedule time to meet in person with you when necessary. If for some reason Mr. Deaton and Mr. Eastup are unavailable at a particular time, our firm has two other partners, each with extensive governmental audit experience, who are willing to assist you.

We estimate the fee for the annual audit, based on an hourly rate of \$125, to be \$5,000.

We commit to having the audit completed by June 1 of each year, in order for the Board of Directors to have it available for review at their June meeting.

We would not charge the District additional fees for telephone consultations or electronic mail correspondence during the year. However, any additional services you request which would require a visit by us to the District or significant office time would be billed separately.

MEMBERS:

AMERICAN INSTITUTE OF
CERTIFIED PUBLIC
ACCOUNTANTS

TEXAS SOCIETY OF CERTIFIED
PUBLIC ACCOUNTANTS

HANKINS, EASTUP, DEATON, TONN & SEAY

A PROFESSIONAL CORPORATION

902 NORTH LOCUST P.O. BOX 977 DENTON, TEXAS 76202-0977

> TEL. (940) 387-8563 FAX (940) 383-4746

CERTIFIED PUBLIC ACCOUNTANTS

FIRM RESUME

Shareholders:

Jerry W. Eastup, CPA, Carl M. Deaton, CPA, Dan Tonn, CPA, and Rob Seay, CPA.

Professionals:

Four others excluding principals.

Staff:

Six staff members excluding principals and professionals.

Date Started in Business:

November, 1966.

Experience:

Forty-five years of governmental and nonprofit organization audit experience.

Forty-five years of general business audit experience.

Forty-five years of Federal Income Tax experience, individuals, estates, trusts, corporations, partnerships, and nonprofit organizations.

Forty-five years general business accounting and financial consultant work.

Professional Organizations:

American Institute of Certified Public Accountants

Private Companies Practice Section Division for CPA Firms

(As a membership requirement of the Private Companies Practice Section Division, our firm underwent Peer Review in August 2009, and successfully completed the Review. Beginning in 1992 such a Peer Review is required by the General Accounting Office, to conduct governmental audits.)

Texas Society of Certified Public Accountants

Dallas Chapter Texas Society of Certified Public Accountants

Texas Association of School Business Officials

Experience of Principals Prior to Joining Firm:

Eight years audit and tax experience with national accounting firms.

Two years experience for manufacturing concerns.

Five years experience with large local accounting firm.

Two years experience with financial services firms.

main: 214 660 2000

fox: 214-276 7555



System Review Report

To the Partners of Hankins, Eastup, Deaton, Tonn & Seay, P.C. and the Peer Review Committee of the Texas Society of CPAs

We have reviewed the system of quality control for the accounting and auditing practice of Hankins, Eastup, Deaton, Tonn & Seay, P.C. (the firm) in effect for the year ended February 29, 2012. Our peer review was conducted in accordance with the Standards for Performing and Reporting on Peer Reviews established by the Peer Review Board of the American Institute of Certified Public Accountants. The firm is responsible for designing a system of quality control and complying with it to provide the firm with reasonable assurance of performing and reporting in conformity with applicable professional standards in all material respects. Our responsibility is to express an opinion on the design of the system of quality control and the firm's compliance therewith based on our review. The nature, objectives, scope, limitations of, and the procedures performed in a System Review are described in the standards at www.aicpa.org/prsummary. 翻点跨视 经运动工程产度表

As required by the standards, engagements selected for review included engagements performed under Government Auditing Standards and audits of employee benefit plans.

In our opinion, the system of quality control for the accounting and auditing practice of Hankins, Eastup, Deaton, Tonn & Seay, P.C. in effect for the year ended February 29, 2012, has been suitably designed and complied with to provide the firm with reasonable assurance of performing and reporting in conformity with applicable professional standards in all material respects. Firms can receive a rating of pass, pass with deficiency(ies), or fail. Hankins, Eastup, Deaton, Tonn & Seay, P.C. has received a peer review rating of pass. Vail + Knowth, UP

Vail & Knauth LLP August 30, 2012

Proposal to Provide Audit Services

North Texas Groundwater Conservation District

Rutherford, Taylor & Company, P.C.

Proposal to Provide Audit Services North Texas Groundwater Conservation District

Contact: Rutherford, Taylor & Company, P.C.

> Mr. Robert K. Lake, CPA 2802 Washington Street Greenville, Texas 75401 (903) 455-6252

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RUTHERFORD, TAYLOR & COMPANY, P.C.

Certified Public Accountants

2802 Washington Street

Greenville, Texas 75401

(903) 455-6252

Fax (903) 455-6667

January 28, 2014

Board of Directors North Texas Groundwater Conservation District C/O Greater Texoma Utility Authority 5100 Airport Dr. Denison, TX 75020

RE: REQUEST FOR PROPOSAL

Rutherford, Taylor & Company, P.C. is pleased to respond to your request for proposal for audit services for the North Texas Groundwater Conservation District. Our proposal includes information concerning Rutherford, Taylor & Company, P.C., our qualifications related to serving as your auditors, requested information per our visit, professional fees, and other related information.

Our understanding of the services to be provided included:

- . An organization-wide audit resulting in an unqualified opinion on the basic financial statements
- Evaluation of the District's internal accounting controls resulting in a report to the District on reportable conditions in accordance with standards issued by the General Accounting Office
- Reporting on the District's compliance with laws and regulations as required by the General Accounting Office and Texas Education Agency.

The audit will be made in accordance with auditing standards generally accepted in the United States of America, *Government Auditing Standards*, issued by the Comptroller General of the United States, and, the provisions of OMB Circular A-133 "Audits of States, Local Governments, and Non-Profit Organizations," as applicable.

We believe that the information in this proposal provides information requested by your District. We also feel it demonstrates that Rutherford, Taylor & Company, P.C. is qualified to serve as the District's Independent auditor.

Page 2

We appreciate this opportunity to present our qualifications, capabilities, and the approach we will use to service your needs. We believe we will provide you with outstanding professional services with the quality of personnel involved, our approach to the audit process, and the organization of our efforts.

We will be pleased to discuss any questions you may have regarding the proposal or any other matters related to the engagement at your convenience.

Respectfully submitted,

Michael E. Taylor, CPA

Rutherford, Taylor & Company, P.C.

MET/sb

Introduction

The North Texas Groundwater Conservation District will benefit from selecting Rutherford, Taylor & Company, P.C. to complete its annual financial and compliance audit.

While all certified public accountants are bound by the same professional standards, some firms are capable of providing a service that yields more benefits to the client including recommendations and insight for and into the management process. We believe Rutherford, Taylor & Company, P.C. will provide these services to the North Texas Groundwater Conservation District.

Experience

Rutherford, Taylor & Company, P.C. has more than thirty years' experience as auditors for Texas local governments. This experience allows the engagement team a practical understanding of government operations, thus enhancing the effectiveness of the audit. This effectiveness translates to less interruption of your daily schedules, efficient use of your records and facilities, and ultimately, reduced costs to your District.

Our audit practice consists of a multitude of local government and non-profit organizations. We were engaged to complete in excess of fifty local governments' audits for entities with fiscal years ending in 2013. With this concentration of local government audits, we have a large investment in the audits of local governments and continue to seek growth in this specialized field.

Personal Service

Personal service is the key to the growth and development of professional relationships with clients. The on-going relationship, including day-to-day financial reporting assistance, provides both you and us the opportunity to strive for excellence in financial reporting.

Rutherford, Taylor & Company, P.C. can provide the needed technical assistance to assure you that your records and financial reports will be timely, accurate, and informative to all interested parties.

Cost-Effective Service

The day-to-day involvement of the principals of Rutherford, Taylor & Company, P.C. enables the audit to proceed in an efficient and cost-effective manner. The principals and supporting staff have the experience, expertise, and work attitude to provide the District with assurance that audit procedures are timely, functional, and performed on a cost-effective basis.

TECHNICAL COMPONENT: Scope and Approach

Scope of the Audit

Our audit of the North Texas Groundwater Conservation District's Annual Financial Report will be performed in accordance with government auditing standards generally accepted in the United States of America as outlined in Government Auditing Standards, issued by the Comptroller General of the United States. It will further be designed to satisfy any Texas Commission Environment Quality's reporting and compliance requirements. Our audit will include all operations for which the District exercises oversight and responsibility.

The standards outlined in the *Government Auditing Standards* are considered to be generally accepted government auditing standards and shall be adhered to in the accomplishment of our audit. These standards extend the non-governmental standards by requiring additional scope, fieldwork, planning, and reporting. Government auditing standards generally accepted in the United States of America are required to be adhered to in the examination of Texas local government financial statements.

Compliance Auditing

Based upon review of prior years' financial reports, it appears that the level of federal funding to the District will not exceed the threshold imposed by the Single Audit Act of 1997, thus not requiring our examination of the District's federal financial assistance programs to be made in accordance with the requirements of that Act, Office of Management and Budget Circular No. A-133. The requirements imposed by the Single Audit Act require an extension of auditing and reporting responsibilities beyond the expression of an opinion on the basic financial statements. Our audit will not include these extended tests of internal accounting and administrative controls. We will also not be required to perform tests to determine the District's compliance with laws and regulations of the major federal financial assistance programs.

Internal Control Structure

We will review and evaluate the District's internal accounting controls, studying such controls to the extent we consider necessary to evaluate the system of internal accounting control as required by generally accepted auditing standards as well as the financial and compliance standards of the Comptroller General of the United States. Any significant deficiencies or material weaknesses identified in the District's internal control structure will be reported to the District in accordance with the Statement on Auditing Standards, No. 115.

Opinion and Report

We will issue opinions on the opinion units that comprise the District's basic financial statements in accordance with generally accepted accounting principles. We will also prepare and issue the opinions, reports and schedules required by generally accepted account principles (GAAP). You will be required to review the basic financial statements prior to issuance of the annual financial report. The financial report includes but is not limited to: Basic Financial Statements, Required Supplementary Information, and other required supplementary information required by GAAP. We will complete and return to you fifteen (15) copies of the annual financial report.

Management Letter

We will prepare, if we determine it is needed, a management letter describing noted weaknesses in internal accounting controls, observations regarding efficiency of operations, and detailed recommendations to inform you of deficiencies noted in our audit. Prior to issuing the management letter, we will review the proposed contents with District administration to confirm the accuracy of our comments and to discuss implementation considerations. We never hesitate to bring forward important matters to the attention of the administration as soon as they are discovered. This takes place usually during our interim and final fieldwork visits to the District. The objective of the management letter is to provide the District's administration and board of directors with constructive comments to correct potential problems and to resolve noted deficiencies. We will provide copies of any letter issued to the administration and board of directors.

Audit Approach

The engagement shareholder will be on site during the fieldwork phase to supervise staff and answer District questions arising from the engagement. This on-going personal involvement by the engagement shareholder, again, allows for a timely and effective audit.

Audit Programs

An annual audit is comprised of a preliminary plan in which risk assessments and limits of materiality are determined which lead to the development of an audit program. Our audit program is a standard government audit program that has been revised for its applicability to Texas local governments. The audit program will be modified based on the preliminary risk assessment to achieve the audit results in an efficient and effective manner. Included in this program is the utilization of analytical review and professional judgment to maximize the effectiveness of audit procedures and eliminate ineffective audit waste.

Our audit approach involves four work phases: Engagement planning, interim fieldwork, final fieldwork and technical review.

Engagement Planning - In order to complete an effective and efficient audit of the District's basic financial statements, the engagement and planning phase of the audit is a critical phase. The first priority in this area will be to assure an orderly transition from the District's present auditors. We will begin with a review of that firm's workpapers, followed by a preliminary planning meeting with District staff to ensure a smooth transition. Our approach to obtaining an understanding of the accounting system of the District will be to document each significant transaction cycle through the use of narratives. This information will be used to perform an analysis of risks in the financial accounting cycle. This planning phase including the risk assessment will allow us to design the following three phases of the audit to ensure effectiveness as well as reliability throughout the audit process.

Interim Fieldwork - Based upon work completed in the planning stage, we will prepare audit programs, perform compliance testing considered appropriate, and begin various types of substantive analytical procedures utilizing the District's general ledger for the year.

The selection of audit procedures and design of audit programs is an exercise of professional judgment made by the engagement team members with the approval of the engagement shareholder.

Final Fieldwork - Final fieldwork will be performed after the District's year-end closing of accounts. The final fieldwork phase will include the majority of the substantive tests to be performed during the engagement, including but not limited to:

- Perform audit tests and complete preparation of audit workpapers
- Complete audit programs, procedures and conclusions
- Discuss audit findings and propose adjusting entries as appropriate with District administrative personnel
- Post District-approved adjusting entries and complete working trial balances
- Obtain client representations and attorney letters

Technical Review - The final phase of the audit will begin as the fieldwork ends. Activities which will be completed during the technical review phase of the audit include:

- Engagement shareholder review of all workpapers to ensure compliance with technical standards, completeness, and accuracy
- Finalization and preparation of the District's Annual Financial Report
- Conferences with District administrative personnel to review the auditor's opinions, the Annual Financial Report and any preliminary

management letter comments

- Issue and deliver the Annual Financial Report in accordance with the requirements of the proposal after approval of District officials.
- Present the Annual Financial Report and any management letter to the Board of Directors

The timing of each phase of the engagement will be coordinated with the District's staff to ensure that daily activities are not disrupted, yet also to ensure that the audit is timely delivered and the reports prepared.

We will begin the planning process upon engagement and will coordinate District visits with the District's business office staff. The Annual Financial Report will be presented to the Board of Directors no later than its June 2014 meeting. We will provide a draft of the financial report for the District's review prior to completion of the report.

It is estimated that the audit will require approximately one (1) day for the interim fieldwork. The final fieldwork should be completed over a two (2) day period. Remaining fieldwork and the technical review should encompass an additional day. Between the principals and staff, we anticipate a total of 72 hours will be committed to the procedures. It should be noted, however, that a day represents the time in your district to conduct the fieldwork with additional hours completed off-site. Our day also potentially relates to a 10-12 hour time period. This extended day provides for less travel time, decreased interruptions of your daily activities and a concentrated work ethic. All fees are estimated using our standard rates ranging in amounts from \$ 65 to \$ 175 per hour, per personnel.

Independence

Conformity with the rules of professional conduct requires that a certified public accountant be independent, in fact and appearance, with respect to a client for whom he or she is issuing a report on financial statements. With respect to this engagement on behalf of the North Texas Groundwater Conservation District, the firm and all proposed audit team members are independent regarding direct and indirect financial interest.

Longevity of Relationship

Many hours are required in a first time audit of an entity to study the systems and procedures, to prepare appropriate audit programs, and to assemble complete permanent files of documents needed during the audit. We believe that each year's service will provide added value to the District. And, as such, a long term relationship can prove to serve the needs of both the independent auditor as well as the local government.

The audit approach under a multi-year contract would not be appreciably different than the approach documented in this proposal. Some clerical staff assignments could change; however, the engagement shareholder and professional staff should remain in place.

MANAGEMENT COMPONENT: Audit Services

Rutherford, Taylor & Company, P.C. is well qualified to provide the audit services requested by the North Texas Groundwater Conservation District. The ability of the firm to provide cost effective audit services and timely consulting services is shown most prominently by its long term relationships with many of its local government clients.

Firm Profile

Rutherford, Taylor & Company, P.C. is a local certified public accounting firm providing auditing, tax, and consulting services to the public sector in the north central Texas area from its main office in Greenville.

A full range of accounting, auditing, tax, and consulting services are provided to a variety of clients including Texas local governments. Major clients include Texas public school districts, counties, municipalities, and other local governmental units. Because of our firm's strong emphasis in government accounting and auditing, all professionals and supporting staff members are experienced in governmental accounting procedures. This experienced staff will allow for services to be rendered in an efficient and timely manner.

Rutherford, Taylor & Company, P.C. traces its origin to 1952 and has served the community and area continuously since its inception. Presently, Michael E. Taylor is the firm's managing shareholder. He has more than 35 years of governmental accounting and auditing experience in Texas local governments. Robert K. Lake is the audit shareholder for the firm. He has 33 years of local governmental accounting and auditing experience.

Quality Review

Rutherford, Taylor & Company, P.C. is presently enrolled in the Texas Society of Certified Public Accountants quality review program. This enrollment began in 1989 with the adoption of the requirement for review by the American Institute of Certified Public Accountants, Texas Society of Certified Public Accountants, and the inclusion of the quality review provision as a requirement for completing governmental audits in the *Governmental Auditing Standards* as issued by the Comptroller General of the United States. The program requires an in-house review once every three years in accordance with those standards. The Firm's first review was conducted in December, 1991 and an unqualified report was issued. Reviews were completed in each of the following four subsequent three year periods. Each review concluded with an unmodified opinion being issued by the engaged firm. A copy of our most recent report is included in this proposal as an exhibit.

Experience

Rutherford, Taylor & Company, P.C. has the training, technical competence, and experience to perform the services needed in this engagement. Local as well as regional governments have sought out and engaged Rutherford, Taylor & Company, P.C. to provide audit services because of our capabilities and

experience.

Rutherford, Taylor & Company, P.C. provides its clients with a full range of accounting, auditing, single audit, and financial reporting services. Many of the services we provide to the area local governments are very similar to the types of services the North Texas Groundwater Conservation District is requesting.

We have a depth of experience serving all types and sizes of government organizations. Our clients range from small municipalities to larger counties and school districts. Over the past year, we audited 39 Texas public school districts as well as 3 municipalities, 2 counties and a variety of other governmental entities including special utility districts.

We provide these clients with a full range of services, including their Annual Financial Report as well as other day-to-day requests concerning accounting procedures, information reporting, and other internal control and compliance assistance. To support our qualifications in this regard, we are providing an enclosed exhibit containing a list of current and prior local government clients to support our claim for extensive knowledge of governmental accounting and auditing procedures. We invite you to contact any of the individuals listed on the exhibit to discuss the services we have rendered to their entity.

Audit Team

The audit team will be headed by Robert K. Lake, the firm's audit shareholder. He will be on-site during the engagement to direct all audit team members and to answer any questions relating to accounting controls and procedures.

Office professional staff members will comprise the remaining professional staff in the engagement. They are trained to complete specific engagement tasks thus minimizing audit waste through efficiency.

In addition to the engagement partner and the professional staff, the firm will assign other clerical staff to perform necessary engagement steps to complete the procedures in a timely manner. Those members will be selected for their technical ability, engagement specialty, and experience.

Resumes on the firm's professional staff are included as exhibits in this proposal.

Continuing Professional Education

In accordance with firm policies and government auditing standards, each professional is required to obtain 120 hours of continuing professional education every three years with a minimum of 20 in any one year. Annually, each staff professional receives training in specialized areas including governmental accounting and auditing. The firm's policies and staff courses are reviewed during the quality review process to ensure compliance with *Government Auditing Standards*. Each professional's resume, included in this proposal as an exhibit, lists the continuing professional education courses attended within the last three years which relate to governmental accounting and auditing.

District Assistance

Rutherford, Taylor & Company, P.C. will prepare all audit workpapers, schedules, adjusting journal entries, client prepared journal entries, and the entire Annual Financial Report. We will also require the District personnel to review all proposed journal entries prior to inclusion in the trial balances. We will request the District's staff for assistance in certain areas. Typically, these will be minor in relation to the overall tests performed. These tasks will include, but are not limited to, a summary to determine the highest cash in bank during the fiscal year, a listing of investments and earnings, and a summary of accounts payables and receivables at year end. Other requests may be made during our visit. Generally these requests are minor and usually involve adding numbers or other minimal tasks. As you can see, these areas are minimal in relation to the overall audit tests to be performed and financial statements to be prepared.

Other Matters

Rutherford, Taylor & Company, P.C. has never been publicly or privately reprimanded by the Texas State Board of Public Accountancy.

Based on the information provided in your request for proposal, it appears that no specialist or consultants will be used outside of those presently engaged or employed by the District. Those specialists presently employed could include the District's accounting software and tax accounting providers.

Additional Services

In addition to providing traditional accounting, auditing, and tax services, Rutherford, Taylor & Company, P.C. provides a wide range of other consulting services that can benefit the North Texas Groundwater Conservation District both now and in the years to come. Some of the financial and consulting services that may be of interest to the District are outlined below.

Tax Information Reporting - All businesses have been affected by various new and constantly changing Internal Revenue Service information reporting requirements. Reporting requirements have become increasingly complex and pervasive, and the Internal Revenue Service is assessing substantial penalties for noncompliance much more frequently.

Management Consulting - Rutherford, Taylor & Company, P.C. can provide a full range of financial and management advisory services to assist the District's administration and Board of Directors in its daily operations. In today's business environment, the best advice possible is necessary to minimize costs, potential risks, and inefficient operational activities. The various management consulting services would include the following:

 Organizations Design and Development - including report design, paper flow, record retention and management, organizational reporting and development, and departmental responsibilities.

RUTHERFORD, TAYLOR & COMPANY, PC CERTIFIED PUBLIC ACCOUNTANTS

- Financial Management including daily cash management, short-term investment management, cash budgeting, capital budgeting, methods of financing, and depository contract and bank proposals.
- Compliance Management including review of policies and procedures with regards to federal and state compliance requirements.

Professional Fees

Our fees are based on the time required by professional staff members to perform the engagement. We attempt to keep our time to a minimum by working closely with District personnel. Estimates of our time requirements and our fee are based on the size of the District and our experience providing similar services to other districts as well as our review of the District's financial report and accounting records. The estimate is based on the assumption that we will not encounter any significant unusual circumstance during the audit. If significant additional time is necessary, we will discuss it with you and arrive at a new fee estimate before we incur the additional costs.

In accordance with the rules of professional conduct of the State Board of Public Accountancy, a firm cannot make a competitive bid for professional services. A fee estimate may be given as long as it is understood that the firm will not have its independence impaired by being bound to the estimated amount if conditions change which require extensive additional services. We do not, however, render a fee estimate without careful consideration and deliberation.

Our fee will be based on the assumption that the reporting requirements of the District, Texas Commission on Environmental Quality, and other agencies will be substantially the same as in previous years. With the continued issuance of government accounting standards by the Governmental Accounting Standards Board the fees will be, at best, an estimate of the time we feel will be needed to implement any new reporting standards.

Our fee estimate will include the preparation of fifteen (15) copies of the Annual Financial Report. Should the District want to use an alternative method for producing the reports, we will provide a camera-ready copy to the District; however, the fee estimate will not be reduced. We will produce additional copies of the report at a cost of \$ 20 per copy.

Fee Estimate -2013 year \$5,150

We anticipate that an ongoing audit relationship would result in a fee increase over the next few years at a rate of approximately 3.5%. This would assume that the accounting standards, auditing standards and requirements of the State and federal government do not significantly change during the period. With this said, we anticipate the fees over the next few years to approximate the following amounts:

Conclusion

The most valuable asset we have as a firm is our reputation as a quality provider of services. We will never compromise the quality of our work in order to complete a job within the number of hours estimated. You can be sure that we will do as much work as necessary in our professional judgment to determine that the reports are well documented and responsive to the needs of the District.

Our firm's philosophy is to perform quality professional services as requested by the District in an efficient and cost effective manner which allows the District to maximize its financial resources yet obtaining an effective and informative audit. We intend to provide the District with our technical capabilities and personal attention that are our trademark in the governmental auditing field.

PROPOSER QUALIFICATIONS

ROBERT K. LAKE, CPA

School Audit

Experience: 33 years

Percentage of

Time on Site: 100%

Jobs Held: Staff to Engagement Shareholder

Educational

Background: Bachelor of Business Administration

Baylor University - May, 1980

Seminars

Attended: Auditware Annual Update – August 2013

Annual Yellow Book Update - July 2013

Texas Schools Accounting and Auditing Update - June 2013

Texas School District Accounting and Auditing Conference – June 2013 Contemporary Accounting Ethics and Related Issues – March 2013

Federal Tax Update - February 2013

Texas Schools Accounting and Auditing Update - June 2012

Texas School District Accounting and Auditing Conference - June 2012

Annual Yellow Book Update – August 2011 Auditware Annual Update – July 2011

Texas Schools Accounting and Auditing Update - June 2011

Texas School District Accounting and Auditing Conference – June 2011 State & Local Government Financial Statement Audits – April 2011

Auditor's Risk Assessment Process – July 2010

Yellow Book University – Auditing State & Local Governments – June 2010 Yellow Book University – Performing Effective Single Audits – June 2010

Texas Schools Accounting and Auditing Update - June 2010

Texas School District Accounting and Auditing Conference - June 2010

Certifications: Certified Public Accountant - September 1982

Certificate of Educational Achievement - Government Accounting and Auditing - November 1989

Professional

Organizations: American Institute of Certified Public Accountants

Texas Society of Certified Public Accountants Texas Association of School Business Officials

Other

Experience: Engagement shareholder on audits of municipalities, counties and various other government

agencies and nonprofit organizations.

CLIENT PROFILE FINANCIAL AND COMPLIANCE AUDIT SERVICES

	YEARS		CONTACT
DISTRICT NAME	ENGAGED	CONTACT PERSON	NUMBER
Lavon Water Supply Corporation	4	Camille Reagan	972-843-2101
Caddo Basin Special Utility District	14	Michelle Metcalf	903-527-3504
Cash Special Utility District	14	Stacy Blasingame	903-883-2695
City of Farmersville	14	Daphne Hamlin	972-782-6151
City of Point	14		903-598-3296
Campbell Water Supply Corporation	2	Carter Ketchum	903-862-2178
Altoga Water Supply Corporation	80	Rodney McDaniel	972-529-9595
Miller Grove Water Supply	14	Sandra Garrett	903-459-3383
North Hunt Special Utility District	12	Stacy Nicholson	903-886-3458
BHP Water Supply Corporation	12	Shelly Webb	972-636-2154
Woodbine Water Supply Corporation	က	Ricky Kemp	940-668-8337
Sharon Water Supply Corporation	22	Vanessa Stone	903-342-3525
Gober Municipal Utility District	Ξ	Nicky Young	903-583-9496
Maloy Water Supply Corporation	7	Melissa Bryant	903-217-3957
West Delta Water Supply Corporation	9	Vickie Armstrong	903-886-7117
Rose Hill Special Utility District	9	Robert Todd	972-932-3077
College Mound Water Supply Corporation	വ	Shirley Blakeley	972-563-1355
North Texas Groundwater Conservation	က	Debi Atkins	972-784-7777
City of Emory	2	Angie Allen	903-473-2465
South Rains Water Supply Corporation	18	Gus Metz	903-473-2122
Red River Groundwater Conservation District	2	Debi Atkins	972-784-7777

CLIENT PROFILE FINANCIAL AND COMPLIANCE AUDIT SERVICES

DISTRICT NAME	YEARS ENGAGED	CONTACT PERSON	CONTACT	FY 2011 ADA
Alba-Golden Independent School District	13	Brenda Kelley, Business Manager	(903) 768-2472	866
Anna Independent School Distrtict	4	Larry Johnson, Superintendent	(972) 924-1000	2,347
Aubrey Independent School District	25	James Monaco, Finance Director	(940) 365-2721	1,924
Avinger Independent School District	15	Jacquelyn Smith, Superintendent	(903) 562-1271	126
Bland Independent School District	35+	Bryan Clark, Superintendent	(903) 776-2239	586
Boles Independent School District	7	Graham Sweeney, Superintendent	(903) 768-2472	516
Caddo Mills Independent School District	35+	Kathy Weis, Assistant Superintendent	(903) 527-3164	1,555
Campbell Independent School District	ო	Crystal Shirley, Business Manager	(903) 862-3259	368
Canton Independent School District	15	Denise Stone, Business Manager	(903) 567-4179	2,021
Chapel Hill Independent School District	7	Sharon Deason, Exec. Director Finance	(903) 566-2441	3,450
Collinsville Independent School District	∞	Karen Shotwell, Business Manager	(903) 429-6272	920
Commerce Independent School District	7	John Walker, Business Manager		
Community Independent School District	30	Cole McClendon, Superintendent	(972) 853-2474	1,642
Coppell Independent School District	7	Kelly Penny, Chief Financial Officer	(214) 496-6004	10,676
Cumby Independent School District	9	Shelly Slaughter, Superintendent	(903) 994-2260	400
Farmersville Independent School District	17	Sherry McGuire, Business Manager	(903) 782-6601	1,448
Gladewater Independent School District	2	Susie Stephens, Business Manager	(903) 845 6991	2,028
Greenville Independent School District	31	Billy Myers, Chief Financial Officer	(903) 457-2500	4,753
Hawkins Independent School District	23	Robby Fair, Business Manager	(903) 769-2181	751
Howe Independent School District	က	Julie Snapp, Business Manager	(903) 532-3228	1,027
Lone Oak Independent School District	35+	Donna Scoggins, Business Manager	(903) 662-5427	933
Mount Vernon Independent School District	11	June Malone, Business Manager	(903) 537-2546	1,570
North Hopkins Independent School District	∞	Donna George, Superintendent	(903) 945-2192	450
Ore City Independent School District	2	Talina McIlheny, Business Manager		
Pottsboro Independent School District	17	Donna Henderson, Business Manager		1,313
Quinlan Independent School District	35+	Billie Miller, Business Manager		2,459
Quitman Independent Schiool District	ღ	Melinda McGinnins, Business Manager	(903) 763-5000	1,145
Rains Independent School District	15	Jeff Fisher, Business Manager		1,636
Rio Vista Independent School District	4	Tim Wright, Superintendent	(817) 373-2241	867
Roxton Independent School District	22	Jeff Hall, Superintendent	(903) 346-3213	192
Royse City Independent School District	35+	David Carter, Chief Financial Officer	(214) 635-2413	4,653
Sulphur Springs Independent School District	26	Sherry McGraw, Business Manager	(903) 885-7761	4,216
Tioga Independent School District	12	Charles Holloway, Superintendent	(903) 437-2366	160
Van Independent School District	41	Danny Morrow, Business Manager	(903) 963-7958	2,280
White Oak Independent School District	9	Tami Demers, Business Manager	(903) 291-2204	1,449
Winona Independent School District	4	Sheila Bowie, Business Manager	(903) 939-4021	1,023
Wolfe City Independent School District	15	Julie Peel, Business Manager	(903) 496-2283	296
Yantis Independent School District	7	Lisa Burchfield, Business Manager	(903) 383-2462	365

CERTIFIED PUBLIC ACCOUNTANTS

Member of American Institute of Certified Public Accountants
Member of Center for Public Company Audit Firms
Member of AICPA Covernmental Audit Quality Center

System Review Report

June 7, 2013

To the Shareholders of Rutherford, Taylor & Company, P. C. and the Peer Review Committee of the Texas Society of CPAs

We have reviewed the system of quality control for the accounting and auditing practice of Rutherford, Taylor & Company, P. C. (the firm) in effect for the year ended December 31, 2012. Our peer review was conducted in accordance with the Standards for Performing and Reporting on Peer Reviews established by the Peer Review Board of the American Institute of Certified Public Accountants. As a part of our peer review, we considered reviews by regulatory entities, if applicable, in determining the nature and extent of our procedures. The firm is responsible for designing a system of quality control and complying with it to provide the firm with reasonable assurance of performing and reporting in conformity with applicable professional standards in all material respects. Our responsibility is to express an opinion on the design of the system of quality control and the firm's compliance therewith based on our review. The nature, objectives, scope, limitations of, and the procedures performed in a System Review are described in the standards at www.aicpa.org/prsummary. As required by the standards, engagements selected for review included engagements performed under Government Auditing Standards.

In our opinion, the system of quality control for the accounting and auditing practice of Rutherford, Taylor & Company, P. C. in effect for the year ended December 31, 2012, has been suitably designed and complied with to provide the firm with reasonable assurance of performing and reporting in conformity with applicable professional standards in all material respects. Firms can receive a rating of pass, pass with deficiency(ies) or fail. Rutherford, Taylor & Company, P. C. has received a peer review rating of pass.

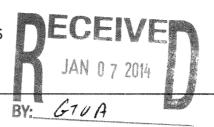
Wilf & Henderson, P. C.

Wilf: Hendum, P.C.



SCHALK & SMITH PC CERTIFIED PUBLIC ACCOUNTANTS

A PROFESSIONAL CORPORATION



Thomas E. Schalk, CPA Judy Smith, CPA Cynthia Muñoz, CPA

December 13, 2013

North Texas Groundwater Conservation District Board of Directors 5100 Airport Drive Denison, Texas 75020

Board of Directors,

Our proposal for the examination of the financial statements of the North Texas Groundwater Conservation District is as follows:

SCOPE OF WORK TO BE PERFORMED

We will audit the financial statements of the North Texas Groundwater Conservation District, for the fiscal year ended December 31, 2013, for the purpose of expressing an opinion on them. Our audits will be conducted in accordance with auditing standards generally accepted in the United States of America.

We will submit a comprehensive audit report of the North Texas Groundwater Conservation District, including a management letter after completion of the audit, to the Board of Directors. We understand that copies of our audit reports will become a part of the Board's official minutes and shall be available for public inspection on its website.

ESTIMATED COSTS

We estimate the total audit fees to amount to \$5,500 for the 2013 fiscal year. We estimate that our hours should be realistic in performing the audit based on our actual hours spent completing the audits of equivalent organizations.

DESCRIPTION OF OUR FIRM

Schalk & Smith PC, CPA's is a local, minority/female owned Professional Corporation with a staff of three Certified Public Accountants, three para-professional staff accountants, and one clerical employee. Our office is located at 701 E. California Street, Gainesville, Texas. We provide a wide variety of services to the public including federal and state tax return preparation, write-up services, management consulting, and auditing.

The emphasis of our auditing practice is concentrated on non-profit and governmental type audits. Our municipal clients include the City of Gainesville, Greater Texoma Utility Authority, City of Whitesboro and several independent school districts including Gainesville, Callisburg, Era, and Walnut Bend. Non-profit entities that we audit include Southwestern Diabetic Foundation, Inc., United Way of Cooke County, Inc., United Way of Wise County, Inc., Court Appointed Special Advocates of North Texas, Inc., Abigail's Arms Inc., North Texas Medical Center Foundation, Inc., Cooke County Youth Center, and VISTO, Inc. Other local audit clients include Lake Kiowa Special Utility District.

STAFF QUALIFICATIONS & RESUMES

Auditor in Charge- Thomas E. Schalk, CPA, president of Schalk & Smith PC, holds BBA and MBA degrees from the University of North Texas. He is a member of the Texas Society of Certified Public Accountants and has over thirty-nine years experience in performing governmental and non-profit audits. He has been a Certified Public Accountant since 1974. He is responsible for the overall planning and audit presentation, review of the financial statements, opinions, governmental compliance, and client liaison.

Audit Manager- Judy K. Smith, CPA, vice-president in the firm of Schalk & Smith PC, has over thirty-five years of governmental auditing experience. She holds a BBA degree with honors from Midwestern University, has been certified since 1978, and is a member of the Texas Society of CPA's. She is responsible for audit planning, work assignments, direct supervision, problem resolution, and compliance with work schedules.

Audit Senior- Cynthia Munoz, CPA, graduated from The University of Texas at Austin with a BBA in Accounting. She received her CPA certificate in 2008, is also a member of the Texas Society of CPA's and has fourteen years accounting and seven years auditing experience. Her responsibilities include supervision of general audit testing, reconciling, transaction sampling, and other supervisory duties.

Senior Staff Accountant- Bridgette McCartney has twenty-one years of accounting experience and fourteen years audit experience. She is responsible for general audit testing, reconciling, transaction sampling, and other staff duties.

Junior Staff Accountant- Kim Stobaugh holds a Bachelor's degree from Texas Woman's University and has five years of audit experience. She is responsible for general audit testing, reconciling, transaction sampling, and other staff duties.

AUDIT PLAN

Our hourly billing rates per employee category are as follows:

Auditor in Charge \$65.00/Hr.
Audit Manager \$65.00/Hr.
Audit Senior \$55.00/Hr.
Senior Staff Accountant \$40.00/Hr.
Junior Staff Accountant \$30.00/Hr.

Schalk & Smith PC utilizes the governmental/non-profit audit procedures and documentation outlined in the Practitioner's Publishing Company publications. These audit guides have been reviewed and approved by the American Institute of Certified Public Accountants and are highly respected in our profession. With respect to the strategy employed to audit the North Texas Groundwater Conservation District data processing system, we normally employ an internal control questionnaire and perform tests of the system using simulated transactions.

CONSIDERATIONS RELATED TO THE REQUEST FOR PROPOSAL

We believe that the audit schedule as set forth in the request for proposal is reasonable and we will be able to comply with it in conducting our audits. We also accept the proposer requirements and conditions under which the audit work is to be performed.

OTHER CONSIDERATIONS

We expect your staff will be available to us during the course of the audit for consultation. However, we realize that you have limited personnel to accomplish the financial and clerical duties related to administration of the North Texas Groundwater Conservation District, therefore, we will keep your staff involvement to a minimum.

A management letter will be issued separately with recommendations for improvements in internal controls, the accounting system, and any other matters that come to our attention. Our engagement is subject to the inherent risk that material errors, irregularities, or illegal acts, including fraud or defalcations, if they exist, will not be detected. However, we will inform you of any such instances that we uncover during the audit. It is our practice to retain our audit documents for a period in excess of five years.

Our firm has been a member of the Texas Society of Certified Public Accountants for over twenty-four years and we participate in the Society's quality review program. The TSCPA requires its members to participate in a quality review every three years.

During the course of our audit, our personnel will be solely assigned to their respective audit duties and will be closely supervised by the audit manager and audit senior. Since we have performed numerous governmental and non-profit audit engagements in the past and have had our work accepted and approved by all cognizant governmental agencies, we feel we are fully competent and able to complete the engagement in a timely manner. Our firm has concentrated on governmental and non-profit auditing since its inception. In the past, we have worked closely with the City of Gainesville and the Greater Texoma Utility Authority in the submission and successful awarding of the GFOA Certificate of Achievement.

We appreciate this opportunity to make a proposal for the audit of the North Texas Groundwater Conservation District and look forward to continuing working with you.

Smith P.C.

Yours truly.

Schalk & Smith PC

Certified Public Accountants

ATTACHMENT 5 G-1



COLLIN COUNTY - COOKE COUNTY - DENTON COUNTY

General Manager's Quarterly Report December 2013 North Texas GCD Management Plan

This quarterly briefing is being provided pursuant to the adopted Management Plan for the quarter ending December 31, 2013.

Well Registration Program:

Current number of wells registered in the District: 1,025 as of December 31, 2013

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

Well Inspection/Audit Program:

2013 Well Inspections

Month		Collin	Denton	Cooke	Total
January		0	0	0	0
February	00.4	0	0	0	0
March		0	0		1
April		0	2	0	2
May		0	0	0	0
June	3	0	0	0	0
July		0	0	0	0
August		0	3	0	3
September		0	13	2	15
October		0	0	0	0
November		0	0	0	10
December		0	10	0	31
Total		0	28	3	31

GM Quarterly Report – Management Plan Quarter Ending 12/31/2013

On-Going Media Outreach Program

While the Management Plan requires an on-going media outreach program to educate the citizens of the requirements to register wells, during this quarter as well as the quarter ended September 30, 2013 the District staff concentrated on following up on the research found through state databases to determine wells drilled after April 1, 2011 that were not properly registered. Notifications were mailed to various well drillers and well owners, based on information obtained from the Texas Water Development Board website (submitted well driller's report). Approximately 99 wells were identified as drilled after April 1, 2011 and needing to be registered. Staff continued to follow up on the delinquent wells during the quarter ending December 31, 2013.

Groundwater Monitoring

Wayne Parkman, Field Technician, accompanied the Texas Water Development Board staff for the 2013 groundwater monitoring event. The Management Plan requires that the District assume the responsibilities of the groundwater monitoring program. This will be accomplished by District staff following the TWDB for two years, assuming the responsibility after this two-year period.

Controlling and Preventing Waste of Groundwater

The Management Plan outlines the following strategies to control and prevent waste of groundwater:

- 1. Link on website to Best Management Practices, updated routinely to provide helpful tips to control and prevent waste of groundwater
- 2. Identification of outreach opportunities with regional and local water providers to increase public awareness for prevention of groundwater waste
- 3. Board and staff will deliver presentations to civic groups and other public opportunities regarding the mission of the District and the need to prevent waste of groundwater

During the first quarter of 2013, pamphlets regarding registering wells were distributed to area water providers. A presentation was made by the General Manager at Myers Park in McKinney in April of 2013 regarding preventing waste of groundwater. As mentioned above, during the third quarter, District staff concentrated on identifying wells that have been drilled after April 1, 2011 which were not properly registered, by utilizing the state website. This strategy continued during the fourth quarter, at the request of the Board of Directors, in an effort to meet the requirements of this section of the Management Plan.

DS:cb

ATTACHMENT 6



AGENDA COMMUNICATION

DATE: February 4, 2014

SUBJECT: AGENDA ITEM NO. 6

CONSIDER AND ACT UPON PROPOSAL FROM DR. ZAC HILDENBRAND FOR THE UT-ARLINGTON BARNETT SHALE STUDY

ISSUE

Consider and act upon proposal from Dr. Zac Hildenbrand for the UT-Arlington Barnett Shale Study

BACKGROUND

At the last Board meeting, Dr. Zac Hildenbrand discussed a study the UT-Arlington staff and students are conducting on the Barnett Shale in several counties in North Central Texas. The Shale extends into the extreme southwest part of Cooke County and includes a substantial portion of Denton County. After discussing the matter at the January meeting, the Board requested Dr. Hildenbrand to provide a written proposal to the Board for discussion at the February meeting.

OPTIONS/ALTERNATIVES

The Board has the option of hearing the proposal in detail and declining to participate or to determine a desire to participate in the study.

CONSIDERATIONS

The current information on revenues versus expenses in the North Texas GCD suggests that funds will be available to participate in this study should the Board decide to do so without having to consider adjusting production fees.

STAFF RECOMMENDATIONS

The staff will await decision from the Board on whether or not to participate in the study.

ATTACHMENTS

- 1. Funding Proposal
- 2. List of Required Testing for Water Quality Analysis

PREPARED AND SUBMITTED BY:

Drew Satterwhite, P.E., General Manager

FUNDING PROPOSAL NORTH TEXAS GROUNDWATER CONSERVATION DISTRICT

A comprehensive analysis of groundwater quality in Collin, Cooke and Denton counties

Zacariah L. Hildenbrand^{1,2} and Kevin A. Schug¹

Department of Chemistry and Biochemistry, The University of Texas at Arlington, Arlington, TX 76019

² Inform Environmental, LLC, Dallas, TX 75227, www.informenv.com

Significance and Aims

Advancements in unconventional drilling techniques, such as hydraulic fracturing, have made the extraction of natural gas from previously inaccessible deep shale formations both practical and economically advantageous. Hydraulic fracturing involves a highly pressurized injection of water, proppants, and chemical additives to expand fissures or fractures in the shale formation to release the trapped gases. Despite the effectiveness of this technology to liberate sequestered natural gas, it is not without environmental risk. Concerns over environmental stewardship, in conjunction with the prospect of using natural gas as a catalyst towards achieving energy independence, have provided the impetus for multiple investigations designed to characterize the relationship between unconventional natural gas extraction and groundwater quality. In this proposed research study there are four principal aims:

- 1) Further elucidate the mechanisms through which unconventional natural gas extraction can potentially contribute to groundwater contamination. Previous measurements of elevated heavy metals (arsenic, selenium and strontium) support a hypothesis in which rust, sulfate, and/or carbonate scale from poorly maintained water wells can become mechanically disturbed by vibrations from nearby intense drilling activity, resulting in the liberation of heavy metal ions into the groundwater. We will further examine the likelihood of this process as well as assess the plausibility of more direct mechanisms for potential contamination, such as equipment failures, faulty well casings or mishandling of produced waters.
- 2) Assess the anthropogenic effects of other aspects of the unconventional drilling process such as the handling of fluid waste and the use of underground injection wells. We have collected samples from fluid waste storage and disposal pits and have discovered harmful chemicals stored within these containment units that could potentially leach into the surrounding surface water and groundwater. We would like to collect more samples from storage and disposal pits to better assess their potential for environmental contamination. Additionally, we would like to collect groundwater samples from nearby underground injection wells to provide further insight into the relationship between groundwater quality and other phases of the unconventional drilling process.
- 3) Assess changes in groundwater quality since 2011. Only 10 of the 100 samples from the 2011 Barnett Shale study were collected within the North Texas Groundwater Conservation District (Collin, Cooke and Denton counties). A thorough analysis of this region would facilitate a better understanding of overall groundwater quality as well as supporting direct comparisons to previous measurements (Fontenot et al. 2011) and available historical data (Texas Water Resource Board).
- 4) Develop technologies for environmental remediation of contamination events. Collaborations have been established to develop technologies and environmental strategies that are specifically tailored to extract exogenous chemicals and endogenous groundwater constituents from potentially contaminated groundwater.

For example, we have begun working with a company called American Water Recycling, who has patented thin-layered graphene filter technology to extract organic and heavy metal complexes from groundwater. These efforts have major implications for the treatment of groundwater, the recycling of produced water, and the sequestration of components in hydraulic fracturing fluids. Additionally, we would like to begin working in the field of landscape architecture to facilitate the development of performative landscapes, which are targeted to reduce incidence of environmental fragmentation through deteriorating and/or contaminated ecosystems. Through these particular collaborations, amongst others, possible best practice strategies will be developed.

Background and Previous Work

The Barnett Shale, a 48,000 km² shale formation located 1500-2400 meters below 17 counties in North Texas, is one of the most heavily drilled shale formations in the United States with over 16,000 natural gas wells drilled in the past decade and more planned. While this region has a long history of oil and gas activities, the recent boom in unconventional natural gas extraction has resulted in increasing concern among citizens about how practices such as using horizontal drilling and hydraulic fracturing could affect their private well water quality. In a recent study published in the American Chemical Society journal *Environmental Science and Technology*, our team of scientists from The University of Texas at Arlington sampled 100 private water wells to assess the potential effects of natural gas extraction on water quality in the Barnett Shale (Fontenot et al. *Environ. Sci. Technol.* 2013).

Our study incorporated a multi-disciplinary approach to measure groundwater quality in the Barnett Shale using both analytical chemistry and geospatial analysis. Additionally our study provided a "snapshot" analysis of groundwater quality during the summer and fall of 2011, a period when natural gas extraction activities were already well established in the Barnett Shale. We compared our data to a historical database of

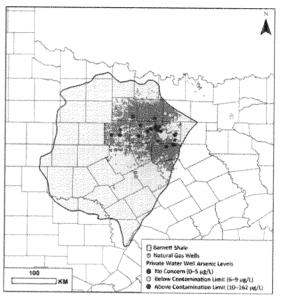


Figure 1. Sampling locations and corresponding arsenic concentrations of sampling sites in relation to neighboring natural gas extraction sites (Fontenot et al. 2013).

groundwater quality to provide some context for groundwater in this region prior to the expansion of natural gas extraction activities.

To begin, our team sampled private water wells of varying depths within a 13-county area in North Texas. Of our 100 samples, 91 were drawn from "active extraction areas," sites that had one or more natural gas wells within a five kilometer radius. Another nine samples were taken from sites either inside the Barnett Shale and more than 14 kilometers from a natural gas well, or from reference sites outside the Barnett Shale. We referred to these sites as "non-active/reference areas" (Figure 1).

Our analytical work focused on determination of harmful compounds thought to be associated with natural gas extraction such as methanol, ethanol, heavy metals (arsenic, strontium, selenium, barium, etc.), and BTEX compounds (benzene, toluene, ethylbenzene, and xylenes). Using inductively coupled plasma mass spectrometry (ICP-MS), we found arsenic in 99 of the 100 wells sampled. Notably, 29 of the 91 samples within active extraction areas had arsenic concentrations above the U.S. Environmental Protection Agency's Maximum Contaminant Limit (MCL) of 10 µg/L (Figure 1). The maximum concentration of arsenic we detected within active extraction areas was 161 µg/L, a value nearly 18 times greater than both the maximum concentration among the non-active/reference area samples and historical levels. This is particularly relevant given that arsenic in drinking water has been found to increase the risk for developing liver, kidney and bladder cancers (Smith et al. *Environ. Health Perspect.* 1992). We also found selenium and strontium at elevated concentrations, with selenium detected exclusively within 2 kilometers of natural gas wells (Table 1 and Figure 2).

Using gas chromatography - mass spectrometry (GC-MS) and headspace gas chromatography with flame ionization detection (HS-GC-FID), common tools for the measurement of volatile chemical compounds, it was determined that several water wells contained quantifiable levels of methanol and/or ethanol, chemicals known to be included in hydraulic fracturing fluids. These alcohols can be formed naturally, but have a very short lifespan in the environment before they disappear; so, the levels we found were unusual. We found the highest concentrations in active extraction areas, although we did detect alcohols in a few of the non-active/reference areas as well. We found no evidence of BTEX chemicals and barium levels were all under the contaminant limit.

	Historical Data (1989-99)				Active Extraction Area Wells (N = 91)			Non-active and Reference Area Wells (N = 9)				
	N	Range	Mean ± Std Error	%≥ MCL	N	Range	Mean ± Std Error	% ≥ MCL	N	Range	Mean ± Std Error	%≥ MCL
TDS	344	129-3302	670.3 ± 21.5	61	91	200–1900	585.1 ± 35.1*	54.9	9	400-600	500 ± 31.6	77.8
Arsenic	241	1–10	2.8 ± 0.1	0	90	2.2–161.2	12.6 ± 2.2*	32.2	9	4.7–9.0	6.9 ± 0.7*	0
Selenium	329	0.1–50	3.9 ± 0.2	0.3	10	10-108.7	33.3 ± 10.5*	20	-	-		ories ÷
Strontium	99	20–16700	1028.9 ± 213.7	N/A [†]	90	66.2–18195	2319.8 ± 330.1*	N/A [†]	9	52.4-7646.2	1610 ± 787.1	N/A [†]
Barium	357	0.1–382	57.2 ± 2.9	0	90	1.8–173.7	32.3 ± 3.3*	0	9	2.9-60	22.4 ± 11.3*	0
Methanol	-	-		N/A	24	1.3–329	33.6 ± 13.3	N/A	5	1.2–62.9	27.4 ± 13.7	N/A
Ethanol	-	-	_	N/A	8	1–10.6	4.5 ± 1.2	N/A	4	2.3–11.3	6.8 ± 2.4	N/A

Table 1. Historical Data compared to measurements collected in active extraction areas and non-active/reference areas. Historical data for the counties sampled in this study were obtained at www.TWDB.state.TX.us/groundwater/. Maximum Contaminant Limits (MCL) obtained from the Environmental Protection Agency's (EPA) National Primary Drinking Water Regulations, 2009. TDS MCL = 500 mg/L, Arsenic MCL = 10 μg/L, Selenium MCL = 50 μg/L, Barium MCL = 2000 μg/L, N/A indicates no MCL has been established.

† EPA recommends stable strontium values in drinking water do not exceed 4,000 μg/L

The fact that elevated compounds occur on average less than 2 km away from natural gas wells and that these compounds were historically at low levels suggests there may be a correlation between natural gas extraction and elevated levels of heavy metals and alcohols in private well water (Figure 2). We found no BTEX chemicals so we do not have any evidence of direct fracking fluid contamination; however, there are a number of indirect pathways through which the heavy metals and alcohols could be introduced. For example, industrial accidents such as faulty gas well casings or improper wastewater disposal could introduce dangerous compounds from produced or flowback waters into shallow groundwater. Additionally, large withdrawals of groundwater to be used in hydraulic fracturing operations could theoretically result in a localized decline in the water table. Such decreases can be associated with higher arsenic content in waters drawn from shallower wells. Another scenario to explain elevated heavy metals could be the mechanical vibrations produced from natural gas drilling activity. In this scenario, poorly maintained private water wells that accumulate rust, sulfate, and/or carbonate scale, can become mechanically disturbed by vibrations from nearby intense drilling activity. Once the rust and scale in the water well are disturbed, arsenic, selenium, and strontium that were previously bound in oxide complexes could be mechanically liberated and released into the well water.

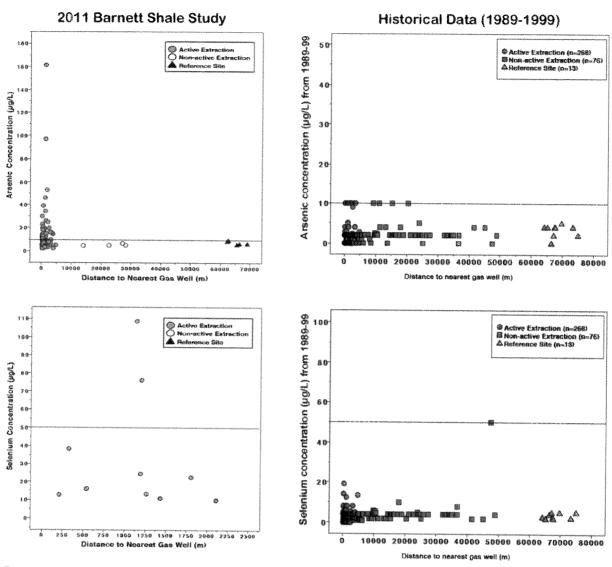


Figure 2. A comparison between the data collected in 2011 and a historical data set (1989-1999) of arsenic and selenium concentrations. These illustrations indicate a significant increase in metals concentrations. Additionally, the historical data (right side) support the notion that the observed exceedances in arsenic and selenium concentrations in 2011 (left side) were not the result of disproportional sampling size (active extraction vs. non-active and reference sites) or a sampling bias. EPA MCL thresholds are illustrated by horizontal lines and are representative of values of 10 and 50 μ g/L for arsenic and selenium, respectively.

While our initial study does not conclusively identify the causes of elevated constituents, it does provide an impetus for continued research in the Barnett Shale to further characterize and quantify the anthropogenic effects that unconventional natural gas extraction has on groundwater quality. Importantly, significant care was taken in our previous study to demonstrate clear impartiality in our scientific findings; this work was funded by personal discretionary funds only, with no external bias.

Research Design and Objectives

In addition to building on the data acquired in the 2011 study, the primary objectives of this proposed research is to: a) further elucidate the mechanisms through which unconventional natural gas extraction can potentially contribute to groundwater contamination, b) assess the anthropogenic effects of other aspects of the unconventional drilling process such as underground injection wells, and c) characterize changes in groundwater quality since 2011.

In order to further elucidate the mechanisms through which unconventional natural gas extraction can potentially contribute to groundwater contamination, we will employ a series of developed and new analytical techniques to address some of the hypotheses generated by our first study. For example, one interpretation of the arsenic, selenium and strontium measurements was that poorly maintained private water wells can accumulate rust, sulfate, and/or carbonate scale, which can become mechanically disturbed by vibrations from nearby intense drilling activity, thus mechanically liberating these heavy metal ions into the groundwater. Collecting measurements for major ions (potassium, sodium, magnesium, sulfate, chloride, fluoride, iron, carbonate and bicarbonate) will address this hypothesis and help assess whether or not the mobilization of heavy metal ions is indirectly attributed to vibrations resulting from gas drilling. Additionally, total organic carbon (TOC), inorganic carbon (IC), purgeable organic carbon (POC) and total nitrogen measurements will allow for an assessment of well integrity allowing us to characterize whether instances of heavy metal contamination are associated with natural gas extraction activities or well-owner neglect. These additional analyses will be performed at the University of Texas at Arlington's Shimadzu Center for Advanced Analytical Chemistry. Additional quantification of methane and other dissolved gases will be performed through the Bureau of Economic Geology at the University of Texas at Austin.

Collecting 100 samples throughout the North Texas Groundwater Conservation District will allow us to characterize the relative environmental effects of underground injection wells, providing further insight into the relationship between groundwater quality and other phases of the unconventional drilling process. GC-MS will be used for the quantification of different industrial compounds used in hydraulic fracturing, as well as ICP-MS and ICP-OES for the characterization of metals and minerals. TOC analyses will provide additional insight into instances of hydrocarbon or organic solvent contamination, and measurements of total nitrogen (TN) will allow us to gauge the relative influence of agricultural contamination.

To evaluate changes in groundwater quality throughout the North Texas Groundwater Conservation District since 2011, samples will be collected from private water wells sites that were sampled as part of the 2011 study. Measurements will be compared to the 2011 data to determine whether increases in natural gas extraction activity, have imparted changes on the groundwater. In particular, we can evaluate the metal (alkaline earth and transition metals) ion signatures characteristic of a given county within the Barnett shale (Carlton et al, *unpublished report*) and determine whether there are changes in these metal profiles as a function of increased drilling activity. GC-MS analyses will also identify whether chemical compounds have been introduced into the groundwater since being sampled previously in 2011.

Collectively, the sampling of 100 well sites within the North Texas Groundwater Conservation District, coupled with the implementation of additional analytical methods and the use of a recently established library of reference measurements, will allow us to further evaluate groundwater quality in the area and more thoroughly assess the environmental ramifications of unconventional natural gas extraction. Additionally, we are developing technologies so that if instances of groundwater contamination are detected within the North Texas Groundwater Conservation District, they can be remediated quickly and efficiently.

Research Team

Zacariah L. Hildenbrand, Ph.D., Faculty Research Associate at The University of Texas at Arlington and Principal of Inform Environmental, LLC

Dr. Hildenbrand received his Ph.D. in Structural Biochemistry from the University of Texas at El Paso and completed a post-doctoral research fellowship at the University of Texas Southwestern Medical Center in Dallas. He is one of the co-principal investigators on the 2011 study of groundwater quality in the Barnett shale where he contributed to study design, sample coordination, basic water quality analyses, data interpretation and manuscript writing. Dr. Hildenbrand will be contributing to study design, project coordination, sample collection, basic water quality analysis, manuscript writing, and participant relations in the current proposed study.

Kevin A. Schug, Ph.D., Associate Professor & Shimadzu Distinguished Professor of Analytical Chemistry at The University of Texas at Arlington

Dr. Schug received his Ph.D. in Chemistry from Virginia Tech and completed a post-doctoral research fellowship at the University of Vienna, Austria. He is recipient of several national separation science awards and is an internationally-recognized analytical chemist. He is the corresponding author on the recent article published in the *Environmental Science and Technology* (Fontenot et al. *Environ. Sci. Technol.* 2013) describing groundwater quality in the Barnett shale. Dr. Schug will be contributing to study design, coordination of analyses, data interpretation, and manuscript writing.

Brian Fontenot, Ph.D., Affiliated scientist at The University of Texas at Arlington and Environmental Scientist at U.S. Environmental Protection Agency, Region 6

Dr. Fontenot received his Ph.D. in Quantitative Biology from the University of Texas at Arlington where he also completed a post-doctoral research fellowship. He is one of the co-principal investigators on the 2011 study of groundwater quality in the Barnett shale where he contributed to study design, sample collection, basic water quality analyses, statistical analyses, data interpretation, and manuscript writing. Dr. Fontenot will be contributing to the design and application of statistical analyses, as well as data interpretation and manuscript writing in the current proposed effort as an independent consultant.

Jesse Meik, Ph.D., Assistant Professor at Tarleton State University

Dr. Meik received his Ph.D. in Quantitative Biology from the U

Dr. Meik received his Ph.D. in Quantitative Biology from the University of Texas at Arlington in 2009, and is currently an Assistant Professor in the Department of Biological Sciences at Tarleton State University. He has considerable experience in data analysis using various platforms including R and SAS, and specializes in model selection and multivariate statistical analysis. Dr. Meik will be contributing to the design and application of statistical analyses as well as to data interpretation and manuscript writing.

Doug Carlton, Jr., B.S., Ph.D. candidate at The University of Texas at Arlington Mr. Carlton will be receiving his Ph.D. in Analytical Chemistry from the University of Texas at Arlington. He has considerable knowledge and experience with GC-MS, HS-GC-FID, ICP-MS, ICP-OES and TOC/TN analyses and performed all of the advanced chemical analyses for the 2011 study of groundwater quality in the Barnett Shale. Mr. Carlton will be contributing to study design, data interpretation and manuscript writing, in addition to performing a majority of the chemical analyses.

Jayme Walton, M.S., GIS specialist at SWCA Environmental Consultants

Ms. Walton received her M.S. in Biology from The University of Texas at Arlington. She has been a contributing scientist to the 2011 study of groundwater quality in the Barnett Shale where she

performed sample collection, basic water quality analyses and geospatial mapping analyses. Ms. Walton will be contributing to GIS geospatial analyses and to manuscript writing.

Scott Nelson, M.S., Founder and President of FracTest, LLC

Mr. Nelson received his M.S. in International Business from Whitworth University. He is founder of FracTest, a technology company whose hydrogeological model and software serves to pinpoint and quantify a wide range of weighted risks to drinking and surface water associated with horizontal drilling and hydraulic fracturing. Through the use of this software, the team will be better equipped to identify and analyze areas that hold a higher risk of contaminant presence and migration. Mr. Nelson will be performing all of the modeling analyses as well as contributing to writing of the manuscript.

Grace Elliot, B.S., Environmental Scientist at CB&I

Ms. Elliot received her B.S. in Environmental Science from Texas Christian University. She has extensive experience in groundwater sampling, analysis and monitoring and will be contributing to sample collection and will also perform basic water quality analyses.

Funding Agreement and Dissemination of Funds

Financial support for this prospective research study is requested by Inform Environmental, LLC, on behalf of The University of Texas at Arlington. Any award would be initially granted to Inform Environmental, LLC, and distributed to The University of Texas at Arlington as delineated in the budget listed below. It is understood the upon accepting financial support for the proposed research that both Inform Environmental, LLC, and The University of Texas at Arlington are responsible for generating the agreed upon deliverables and will present the results in a peer-reviewed scientific journal in an objective and unbiased manner.

Budget

	UT-	Inform		1	
	Arlington	Environmental, LLC	Total		
A. SENIOR PERSONNEL					
1 Schug		**Comparation	rian market	manuació (r)	
2 Hildenbrand					
3 Fontenot					
4 Meik				And the second s	
5 Walton			mra-t-a-copy	Technologie	
TOTAL SENIOR PERSONNEL	0	0	0	***************************************	
B. OTHER PERSONNEL				-	
Post Docs	0	0	0	vanishing of the state of the s	
Technician *(33% support for 6 mo.)	5,000	0	0		
Graduate Student *(33% support for 6 mo.)	4,000	0	12,000	The state of the s	
Undergraduate Students	0	0	0	ne majarije	
Secretarial	0	0	0	Tripopolitical and the state of	
Other	0	0	Ō	Section 1	
TOTAL SALARY & WAGES	9,000	0	12,000	-	
C. FRINGE BENEFITS			1 .2,000	The second secon	
1 Schug	0	0	0		
2 Hildenbrand	0	0	o		
3 Fontenot	0	0	0		
4 Meik	0	0	o		
5 Walton	0	0	0		
Technician (10%)	500	ō	500		
Graduate Student (10%)	400	0	400		
Undergraduate Students	0	0	0		
Others	0	0	0		
TOTAL FRINGE BENEFITS	900	0	900		
TOTAL SALARY, WAGES, BENEFITS	9,900	0	9,900		
D. EQUIPMENT			3,000		
TOTAL EQUIPMENT	0	0	0		
E. TRAVEL		<u> </u>	<u> </u>		
Sampling/Fuel		0			
Total Travel	0	0	0		
G. OTHER DIRECT COSTS		V	U	UT-Arlington M&O costs	
Material and Supplies	4,000	0	4,000	GC-MS	0.000
2. Publication Costs	0	0	4,000	TOC/TN Analysis	2,000
3. Sampling Services	ő	11,000	0	ICP-OES metals	500
Analytical Services	o l	0	0	Sampling materials	1,000
6. Other	-	Ĭ,	0	Comband marenais	500
Other (Tuition)	0	0	0		
TOTAL OTHER DIRECT COSTS	4,000	11,000	15,000	TOTAL	4.000
TOTAL DIRECT COSTS	13,900	11,000	24,900	IOTAL	4,000
MODIFIED TOTAL DIRECT COSTS	13,900	11,000	24,900		
INDIRECT COSTS @ 51.5%	7,158	0	7,158		
TOTAL DIRECT & INDIRECT COSTS	21,058	11,000	32,058		
RESIDUAL FUNDS	0	0			
AMOUNT OF REQUEST	\$21,058	\$11,000	0		
	72.,000	311,000	\$32,058		

^{*}Technician and graduate student are already partially funded by the Prairielands and Upper Trinity GCD.

Timeline and Deliverables

1) Participant recruitment will begin with UT-Arlington and Groundwater Conservation District (three GCDs assumed to be participating) press releases and phone calls/emails to past study participants and previously interested well owners. It is estimated that six weeks will be required to commit 300 groundwater samples from Prairielands, Upper Trinity, North Texas GCD regions

Estimated time frame: January 20 – March 3, 2014 (Efforts have already begun in the Prairielands and Upper Trinity GCD regions)

2) Sampling and basic water quality analyses will begin in January (performed concurrently with participant recruitment) and will be performed over a 12-week period.

Estimated time frame: January 20 - April 20, 2014.

Deliverable: A preliminary progress report with illustrations of sample sites in relation to neighboring natural gas extraction sites.

3) Advanced analytical chemistry measurements will be performed as samples are collected in the field. The GC-MS analyses of unconventional natural gas extraction constituents (volatile and semi-volatile chemicals) are time-sensitive and will be performed within one week of a given sample being collected. All other analyses (ICP-MS and ICP-OES, TOC/TN) will be performed within two weeks of a given sample being collected. An additional month will be required for interpretation of all spectrometric data.

Estimated date of completion: June 7, 2014.

4) Data interpretation, geospatial and statistical analyses, and hydrogeological modeling will be performed over an 8-week period.

Estimated date of completion: August 7, 2014

5) The results and interpretations of the data will be compiled into a manuscript to be submitted for publication in a peer-reviewed scientific journal.

Estimated date of completion: September 1, 2014.

Deliverable: A power point presentation and executive summary of the results. The complete manuscript, with all supplementary materials, will be made available immediately upon acceptance of manuscript for publication. It should be noted that neither Inform Environmental, LLC nor The University of Texas at Arlington has control over the duration of the review process. Typically 2-4 months are required to receive review comments, address concerns, and incorporate additional data to facilitate a complete acceptance for publication.

List of Required Testing for Water Quality Analysis

Basic Water Quality Analysis

Temperature

Dissolved Oxygen

рΗ

Specific Conductance

Oxidation Reduction

Salinity

Total Dissolved Solids

Metals and Minerals Analysis

Ag, Silver

Al, Aluminum

As, Arsenic

Au, Gold

B. Boron

Ba, Barium

Be, Beryllium

Bi, Bismuth

Ca, Calcium

Cd, Cadmium

Ce, Cerium

Co, Cobalt

Cr, Chromium

Cs, Cesium

Cu, Copper

Dy, Dysprosium

Er, Erbium

Eu, Europium

Fe, Iron

Ga, Gallium

Gd, Gadolinium

Ge, Germanium

Hf, Hafnium

Hg, Mercury

Ho, Holmium

I, Iodine

In, Indium

Ir, Iridium

K, Potassium

La, Lanthanum

Li, Lithium

Lu, Lutetium

Mg, Magnesium

Mn, Manganese

Mo, Molybdenum

Na, Sodium

Nb, Niobium

Nd, Neodymium

Ni, Nickel

Os, Osmium

P, Phosphorus

Pb, Lead

Pd, Palladium

Pr, Praseodymium

Pt, Platinum

Rb, Rubidium

Re, Rhenium

Rh, Rhodium

Ru, Ruthenium

S, Sulfur

Sb, Antimony

Sc, Scandium

Se. Selenium

Si, Silicon

Sm, Samarium

Sn. Tin

Sr, Strontium

Ta, Tantalum

Tb, Terbium

Te, Tellurium

Th, Thorium

Ti, Titanium

Tl, Thallium

Tm, Thulium

U, Uranium

V, Vanadium

W, Tungsten

Y, Yttrium

Yb, Ytterbium

Zn, Zinc

Zr, Zirconium

Industrial Compound Analysis

Methanol

Ethanol

Isopropanol

n-Propanol

Propargyl Alcohol

n-Butanol

Ethylene Glycol

Ethylene Glycol Butyl Ester

Benzene

Toluene

Ethylbenzene

m-Xylene

p-Xylene

o-Xylene

Mesitylene

Benzyl Chloride

Formaldehyde

Acetaldehyde

Glutaraldehyde

Dimethyl Formamide

Naphthalene

1-Methyl Naphthalene

2-Methyl Naphthalene

1-Naphthol

2-Naphthol

PEG 200

Bisphenol A

d-Limonene

Acetophenone

1,2,4-Trimethyl Benzene

Cumene

2-Ethyl-1-Hexanol

1,2-Propanediol

TOC/TN Analysis

Total Organic Carbon

Total Carbon

Inorganic Carbon

Particulate Organic Carbon

Total Nitrogen

Dissolved Gases

Methane

Propane

ATTACHMENT 7



DATE: February 4, 2014

SUBJECT: AGENDA ITEM NO. 7

UPDATE AND POSSIBLE ACTION ON THE NORTHERN TRINITY/WOODBINE AQUIFER GAM OVERHAUL PROJECT AND THE DEVELOPMENT OF PROPOSED DESIRED FUTURE CONDITIONS (DFCS)

ISSUE

Update and possible action on the Northern Trinity/Woodbine Aquifer GAM Overhaul Project and the development of proposed Desired Future Conditions (DFCs)

BACKGROUND

Board Member Eddy Daniel has been designated by the District as the District's representative on Groundwater Management Area 8 (GMA 8). Mr. Daniel is also serving as Chair of that group.

CONSIDERATIONS

The GMA 8 met on January 21, 2014. Mr. Daniel will present to the Board the results of that meeting and provide information and insight on the direction the GMA 8 will be taking to establish DFCs.

PREPARED AND SUBMITTED BY:

Drew Satterwhite, P.F. General Manager

ATTACHMENT 8



DATE: February 4, 2014

SUBJECT: AGENDA ITEM NO. 8

UPDATE AND POSSIBLE ACTION REGARDING THE PROCESS FOR THE DEVELOPMENT OF DESIRED FUTURE CONDITIONS (DFCS) INCLUDING THE CONSIDERATION AND POSSIBLE APPROVAL OF CONSULTING SERVICES

ISSUE

Update and possible action regarding the process for the development of Desired Future Conditions (DFCs) including the consideration and possible approval of consulting services

BACKGROUND

The DFCs are going to be required for all Groundwater Management Areas (GMAs) by May 2016 according to the new schedule provided by the Texas Water Development Board (TWDB).

CONSIDERATIONS

The Groundwater Availability Model (GAM), which has been underway for the past 18 months, will be completed this year. This updated GAM will hopefully be used by the TWDB as the basis for determining the available groundwater in the Trinity Aquifer.

PREPARED AND SUBMITTED BY:

Drew Satterwhite, P.E., General Manager

ATTACHMENT 9



DATE: January 4, 2014

SUBJECT: AGENDA ITEM NO. 9

CONSIDER AND ACT UPON REQUEST TO WAIVE REGISTRATION FEES

ISSUE

Consider and act upon request to waive registration fees

BACKGROUND

Cross Timber Water Supply Corporation, formerly known as the Bartonville Water Supply Corporation, is a public water supplier serving a significant number of connections in southeast Denton County. The Corporation has previously registered eight wells with the District. The Corporation submitted a letter to the District requesting waiving registration fees for their ninth well.

The ninth well was approved for drilling by the Texas Commission on Environmental Quality (TCEQ) on November 9, 2005. The Corporation did not begin work on the well until September 1, 2010. According to information provided, the well was completed on or about March 4, 2013. The Corporation had previously registered their wells with the District during the registration fee grace period in 2011. The ninth well was not registered at that time, although the information from the TCEQ shows construction was underway at that time.

OPTIONS/ALTERNATIVES

The Board has the right to waive the registration fee for the Corporation or it may choose to require that the registration fee be paid because the registration did not occur until after the grace period had expired.

CONSIDERATIONS

The \$100 non-refundable registration fee became effective on March 1, 2013. The refundable driller's report deposit fee became effective on February 1, 2012, but is only refundable upon receipt of the driller's report within 60 days of the well completion.

The application for the well was not received until January 2, 2014. According to meter readings received from the Corporation, the well was turned on in September 2013. The District has still not received the driller's report at this time.

STAFF RECOMMENDATIONS

The staff would appreciate direction from the Board on this matter.

ATTACHMENTS

Letter dated January 6, 2014 from

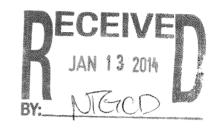
PREPARED AND SUBMITTED BY:

Drew Satterwhite, P.E., General Manager

CROSS TIMBERS WATER SUPPLY CORPORATION

January 6, 2014

Ms. Carmen Catterson North Texas GCD PO Box 508 Gainesville, TX 76241



RE Well # 1450

Dear Carmen:

We began the drilling of a new well on September 1, 2010 and completed the drilling on April 23, 2013. A number of delays occurred that led to this extended period of time for completion. The well was approved for construction in a November 29, 2005 letter from the TCEQ. I have attached the letter from the TCEQ. Subsequent to the approval, the well was flushed, chemical analysis performed and approved, and the well put into use for production and distribution in October 2013.

I have been informed that there are additional fees due on this well for registration. I respectfully request that these fees be waived.

Sincerely.

Lloyd Hanson Controller

2032 E Hickory Hill Road, Argyle, TX 76226-3125 TEL (940) 584-0780 FAX (940) 584-0781

Styan W. Shaw, Ph. D., Cheirman Carlos Rubinstein, Commissioner Toby Baker, Commissioner Zak Covar, Executive Director



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texts by Reducing and Preventing Pollution
April 23, 2013

Mr. Kerry D. Maroney, P.E. Biggs & Mathews, Inc. 2500 Brook Ave Wichita Falls, TX 76301

Re: Bartonville WSC - Public Water System ID No. 0610020

Proposed Stargate Water Well Completion Engineer Contact Telephone: (940) 766-0156 Plan Review Log No.: P-03052013-023 Denton County, Texas

-

CN602661530;

RN101439230

Dear Mr. Maroney:

The constructed well is approved for **interim** use and may now be **temporarily** placed into service based on our review of well completion material received on March 5, 2013, with your letter dated March 4, 2013. The project generally meets the minimum requirements of the Title 30 Texas Administrative Code Chapter 290 - <u>Rules and Regulations for Public Water Systems</u> except the following:

• The chemical analysis report submitted shows that the concentration of Aluminum exceeds the secondary contaminant level. If the official analysis (see below) indicates exceedances, and if customer complaints are received, treatment or blending to reduce the constituent will be required.

The preliminary chemical samples collected by the water system or their contractor are for interim approval only. For final approval prior to the new well being placed into permanent service the following conditions must be met:

- 1. It is the water system's responsibility to contact the TCEQ's Drinking Water Quality Team in Austin at 512/239-4691 to arrange for the collection of the official chemical samples which must be completed within 120 days from the date of this letter.
- 2. The results of the official chemical analysis of these samples will be used to conduct a vulnerability assessment, develop a chemical monitoring plan and grant final approval for the new source.
- 3. If official chemical analysis testing confirms that a regulated constituent does not meet secondary constituent levels, additional treatment, blending, or public notice may be required. The Drinking Water Quality Team will notify the water system of any additional special requirements for this public water supply source. Plans for water treatment must be reviewed and approved by the Utilities Technical Review Team.

Mr. Kerry D. Maroney, P.E. Page 2 April 23, 2013

The well completion data consisted of the following:

- State of Texas Well Report;
- Material setting and cementing data;
- 36-hour pumping test results;
- Executed and recorded sanitary control easement;
- U. S. Geological Survey 7.5 minute map showing the well location;
- Three bacteriological sampling results showing no coliform contamination; and,
- Chemical analysis results.

The well completion data describes construction of the following:

• One public water supply well drilled to 1,500 feet with 1,156 linear feet (l.f.) of 18-inch outer diameter (o.d.) steel casing, pressure-cemented 1,154 l.f., 226 l.f. of 12-inch o.d. stainless steel slot screen, 114 l.f. of 12-inch o.d. blank steel liner, with 446 l.f. underream and gravel pack; the well yield is 750 gallons per minute (gpm) with a 300 horsepower, 12-stage submersible pump set at 1,290 feet deep. The design capacity of the pump is 750 gpm at 1,200 feet total dynamic head (TDH);

The well is located at the new Stargate water plant site, west of FM 407 in Bartonville, Texas.

Texas Water Code Section 36.0015 allows for the creation of groundwater conservation districts (GCD) as the preferred method of groundwater management. GCD's manage groundwater in many counties and are authorized to regulate production and spacing of water wells. Public water systems drilling wells within an existing GCD are responsible for meeting the GCD requirements. The authorization provided in this letter does not affect GCD authority to manage groundwater or issue permits.

The well was approved for construction in our November 29, 2005 letter (Plan Review Log No. 200510-039). The project engineer performed a new pollution hazards survey and found no potential or present pollution hazards as required in 30 TAC 290.41 (c)(1)(A-D).

Please complete a copy of the most current Public Water System Plan Review Submittal form for any future submittals to TCEQ. Every blank on the form must be completed to minimize any delays in the review of your project. The document is available on our website at the address shown below.

Mr. Kerry D. Maroney, P.E. Page 3 April 23, 2013

For future reference, you can review part of the Utilities Technical Review Team's database to see if we have received your project. This is available on the TCEQ's homepage at the following address:

http://www.tceq.texas.gov/utilities/planrev.html#status

You can download most of the well construction checklists and the latest revision of Chapter 290 "Rules and Regulations for Public Water Systems" from this site.

If you have any questions concerning this letter, please contact Thomas Herrera at (512) 239-1490, by email at "Thomas.Herrera@tceq.texas.gov" or by correspondence at the following address:

Utilities Technical Review Team, MC-159 Texas Commission on Environmental Quality P.O. Box 13087 Austin, Texas 78711-3087

Sincerely,

Deborah Helstrom, P.E.

Utilities Technical Review Team Plan and Technical Review Section

Water Supply Division

Texas Commission on Environmental Quality

Ada Lichaa, P.G., Manager

Plan and Technical Review Section

Water Supply Division

Texas Commission on Environmental Quality

TH/av

cc: Bartonville WSC, Attn: Jim Leggieri; 1911 E. Jeter Rd., Bartonville, TX 76226

TCEQ Central Records PWS File 0610020 TCEQ Region No. 4 Office - Arlington

ATTACHMENT 10



DATE: February 5, 2014

SUBJECT: AGENDA ITEM NO. 10

CONSIDER AND ACT UPON REQUEST FOR CLARIFICATION OF TEMPORARY RULES REGARDING DOMESTIC USE EXEMPTION

ISSUE

Consider and act upon request for clarification of Temporary Rules regarding domestic use exemption.

BACKGROUND

Recently Dale Chepulis of Double D Drilling contacted the District expressing his disagreement with the staff's interpretation of District Rule 2.1(a)(1) and (2). These rules describe wells exempt from fee payment and reporting requirements. The District staff interpretation of these rules, based upon the belief that the Board intended exempt wells to be wells used by an individual or household to support domestic activity. This is consistent with the definition of domestic use described in Texas Commission on Environmental Quality (TCEQ) Water Definitions in Chapter 297.

Mr. Chepulis first came to the attention of the District after a staff member cross checked the well registration information maintained by the District with the Submitted Driller Report Database held by the Texas Department of Licensing and Regulation (TDLR). After receiving a letter from the District stating that none of his wells had been registered since registration began in April 2011, Mr. Chepulis submitted 86 applications in August 2013. Approximately 60 of those applications have been completed by the District staff as time permits.

The staff has found in many cases the well registration application information submitted by Mr. Chepulis does not agree with the information on the Driller's Report submitted to the State of Texas. In some cases, the data regarding gallons per minute production is left blank. The majority of the applications examined to date reflect well production at 25 gallons per minute. One well submitted as domestic was found to be a public water supply system serving 15-25 houses when checked by District staff.

OPTIONS/ALTERNATIVES

The Board of Directors may choose to further refine the definition of exempt wells in the Rules in order to clarify for everyone the Board's intention on exempt and non-exempt wells. The staff has been under the assumption that the District's mission was to secure as much data on water production withdrawals from the Trinity and Woodbine Aquifers as possible in order to better understand and plan for future groundwater use and the defined future conditions which must be set by the District by May 2016.

CONSIDERATIONS

The Board may desire to establish a maximum capacity for domestic wells. This matter has been discussed in the past and Board members have indicated it is an issue that should be addressed in the future. The District's legal counsel plans to be present and provide an opportunity for the Board to

discuss this matter in executive session so the Board members have a better understanding of their responsibilities and options concerning this matter.

STAFF RECOMMENDATIONS

The staff recommends that the Board consider revisiting the definition of exempt and non-exempt wells to further clarify for everyone the Board's intention for exempt wells.

ATTACHMENTS

- 1. Request for clarification of Temporary Rules regarding domestic use exemption
- 2. Section 2.1 of the Temporary Rules
- 3. 297 Rules

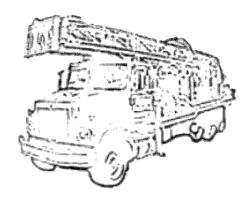
PREPARED AND SUBMITTED BY:

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January 23, 2014

To: North Texas Groundwater Conservation District

Because of a recent discussion with one of my customers, Martin and Chris Rakoci, I would like the Board to clarify the rules regarding Rule 2.1 (a) 1 stating "of any size or capacity use solely for domestic use" and subsequent clarification and interpretation of the word "Domestic "as used in the Definition of Terms item # 10.

The Rakoci's live at 2551 Rockhaven Dr. and have a well that produces approx. 70 gpm and is used for irrigating their property only.

I would like to be put on the agenda along with the Rakosi's to address this issue.

Thanks.

Dale Chepulis

Rule 1.11 Time Limits.

Applications, requests, or other papers or documents required or allowed to be filed under these Rules or by law must be received for filing by the District within the time limit for filing, if any. The date of receipt, not the date of posting, is determinative of the time of filing. Time periods set forth in these rules shall be measured by calendar days, unless otherwise specified.

Rule 1.12 Amending of Rules.

The Board may, following notice and hearing, amend or repeal these rules or adopt new rules from time to time.

SECTION 2. APPLICABILITY OF REGULATORY REQUIREMENTS: EXEMPTIONS

Rule 2.1 Wells Exempt from Fee Payment, Metering, and Reporting Requirements of These Temporary Rules.

- (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.
- (b) For purposes of determining whether the exemption set forth under Subsection (a)(2) applies, the capacity of a well that is part of a well system shall be determined by taking the sum of the capacities of each of the individual wells, as equipped, in the system. If the total sum of the capacities is greater than 25 gallons per minute, the well system and the individual wells that are part of it are not exempt from the fee payment, metering, and reporting requirements of these rules.
- (c) A well exempted under Subsection (a) will lose its exempt status if the well is subsequently used for a purpose or in a manner that is not exempt under Subsection (a).

- (d) A well exempted under Subsection (a)(2) will lose its exempt status if, while the well was registered as an exempt well, the District determines that the well had the capacity, as equipped, to produce more than 25 gallons per minute. Such wells are subject to the fee payment, metering, reporting, and other requirements of these Temporary Rules, and may be subject to enforcement under Section 9.
- (e) The owner of a new well that is exempt under this Rule shall nonetheless register the well with the District, as required under Section 3.

Rule 2.2 Wells Subject to Fee Payment, Metering, and Reporting Requirements of These Temporary Rules

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, or poultry use.

Rule 2.3 Exemption from Production Fees for Groundwater Used for Certain Emergency Purposes

- (a) Groundwater produced within the boundaries of the District is exempt from the assessment of applicable Water Use Fees and Groundwater Transport Fees otherwise required by Section 7 if the groundwater is used by a fire department or an emergency services district solely for emergency purposes and the use is qualified under Subsection (b).
- (b) To qualify for the exemption provided for in Subsection (a), a fire department or emergency services district that uses groundwater produced from within the District, or a person that supplies groundwater produced from within the District to a fire department or emergency services district, shall submit to the District a Water Production Report that complies with Rule 3.10.

Rule 2.4 Exemption from Production Fees for Groundwater Used for Maintenance Purposes

Groundwater used for the purposes of flushing lines, tanks, or fire hydrants as required by TCEQ are exempt from fees if an approved metering device or an alternative measuring method approved by the District is used. These amounts shall be noted on the water production report and subtracted from the total amount pumped.

Rule 2.5 Exemption from Production Fees, Metering, and Reporting Requirements for Groundwater Used for Well Development

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

- (11) Claim--A sworn statement filed under Texas Water Code, §11.303.
- (12) Commencement of construction--An actual, visible step beyond planning or land acquisition, which forms the beginning of the on-going (continuous) construction of a project in the manner specified in the approved plans and specifications, where required, for that project. The action must be performed in good faith with the bona fide intent to proceed with the construction.
- (13) Conservation--Those practices, techniques, and technologies that will reduce the consumption of water, reduce the loss or waste of water, improve the efficiency in the use of water, or increase the recycling and reuse of water so that a water supply is made available for future or alternative uses.
- (14) Conserved water--That amount of water saved by a water right holder through practices, techniques, or technologies that would otherwise be irretrievably lost to all consumptive beneficial uses arising from the storage, transportation, distribution, or application of the water. Conserved water does not mean water made available simply through its non-use without the use of such practices, techniques, or technologies.
- (15) Dam--Any artificial structure, together with any appurtenant works, which impounds or stores water. All structures which are necessary to impound a single body of water shall be considered as one dam. A structure used only for diverting water from a watercourse by gravity is a diversion dam.
- (16) Diffused surface water--Water on the surface of the land in places other than watercourses. Diffused water may flow vagrantly over broad areas coming to rest in natural depressions, playa lakes, bogs, or marshes. (An essential characteristic of diffused water is that its flow is short-lived.)
- (17) District--Any district or authority created by authority of the Texas Constitution, either Article III, $\S52$, (b), (1) and (2), or Article XVI, $\S59$.
- (18) Domestic use—Use of water by an individual or a household to support domestic activity. Such use may include water for drinking, washing, or culinary purposes; for irrigation of lawns, or of a family garden and/or orchard; for watering of domestic animals; and for water recreation including aquatic and wildlife enjoyment. If the water is diverted, it must be diverted solely through the efforts of the user. Domestic use does not include water used to support activities for which consideration is given or received or for which the product of the activity is sold.
- (19) Drought of record--The historic period of record for a watershed in which the lowest flows were known to have occurred based on naturalized streamflow.

ADJOURN