

THE CLEARWATER SOURCE

2005 Annual Newsletter

GROUNDWATER AVAILABILITY FIGURES ADOPTED

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UPCOMING EVENTS

- **Bell County Water Symposium- Nov. 3, 2005 @ Expo Center**
- **CUWCD Board Meetings- generally occur on the 3rd Tuesday of every month**
- **Household Hazardous Waste Collection Days, For more info. contact Jennifer Lawyer (254-933-7075 ext. 208)**
- **Board Elections for Precincts 2,4 and at large- May 2006**

Rain Gauge Network

The District wants to start a rain gauge network to help monitor recharge of the Edwards (BFZ) aquifer. Ideal locations for measurement include the area west of I-35 and South of Stillhouse Hollow Lake. To participate, please contact our office at (254) 933-0120.

The Clearwater District has adopted the results from simulations of the Groundwater Availability Model (GAM) for both the Edwards (BFZ) and Trinity aquifers. Conducted by Turner, Collie and Braden, Inc. (TCB), the District's hydrogeology consultants, the new simulations reveal a larger amount of water available per year in our two major aquifers than previous studies indicated. The Board of Directors accepted the following numbers: 7,500 ac-ft per year in the Edwards (BFZ) and 7,092 ac-ft per year in the Trinity. These numbers are now the new management goals for groundwater production in Bell County.

Groundwater Availability Modeling (GAM) was an initiative begun by the Texas Water Development Board to provide groundwater conservation districts (GCDs) and regional planning groups the tools to perform planning for a 50 year cycle. The GAM

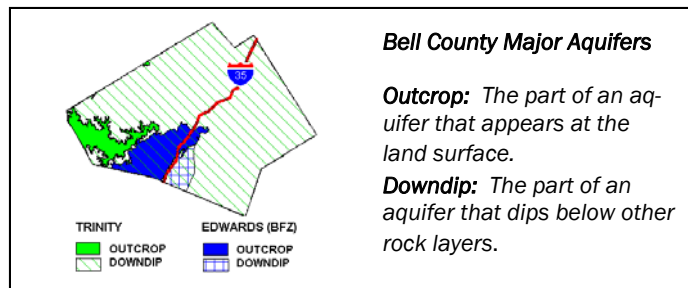
"The modeling concept has been beneficial to the state of Texas and definitely Bell County because it shows more groundwater available than previously thought." —President Horace Grace

basically represents the conditions of an aquifer based on mathematics and physics. Currently, the TWDB has released the GAMs for the nine major aquifers of Texas and is working on the other 21 minor aquifers. GCDs, like Clearwater, are required by statute to utilize the GAMs for developing management plans.

Preliminary results from GAM simulations for the Edwards

(BFZ) were reported to the Clearwater Board on August 17, 2004. At that meeting, the Board set the goal for determining groundwater availability. The goal was to maintain a minimum spring flow of 100 ac-ft/month, during a repeat of the 1950s drought of record, and a preferred spring flow of at least 200 ac-ft/month into the Salado Creek. Simulations of the

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WATER BARELY ADDRESSED IN 79TH SESSION

One Regular session down and at least two special sessions later, Texas Water Policy will likely emerge only slightly changed. The Regular session kicked off with legislators eagerly filing over 60 water related bills. Most died with the highest profile one, **Senate Bill 3** (the omnibus water bill), the victim of a lack of time and consensus.

Senate Bill 3, which never enjoyed consensus from all stakeholders, would have addressed minimum inflows to bays and estuaries, provided for the conjunctive management of water policy, and created the Groundwater Management Area Councils (GMAC), a new

bureaucratic layer between local groundwater districts and the Texas Water Development Board. The bill in its various forms would have also formed a statewide water conservation district for unprotected areas and would have created a state awareness program, "Water IQ." These measures were meant to help solve potential water shortages and environmental concern for a population that is expected to double in 50 years.

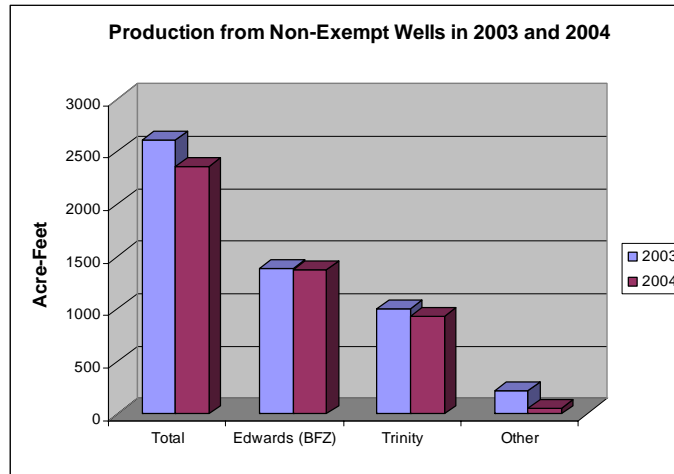
Although SB 3 never made its way to the Governor's desk, there were some bills approved by our representatives. One such bill, **HB 1763** which was signed on June 18th, dealt with a conglomerate of groundwater issues. Within the bill, direction was given to Groundwater Conservation Districts (GCDs) pertaining to their notice requirements and procedures for rulemaking and permit hearings.

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WELL PRODUCTION/REGISTRATION REPORT

The District has issued operating permits for 59 non-exempt wells and requires monthly production reports from these wells. These wells are capable of producing over 17 gallons a minute, located on a tract of land less than 10 acres or are producing water for purposes other than domestic, livestock or poultry. Of these, 27 are producing from the Edwards (BFZ) aquifer, 23 from the Trinity aquifer, and 9 from other groundwater sources.

Permitted wells produced 1,346 acre-feet of water during the first six months of 2005. This is about 150 ac-ft more than the amount of water produced at this time last year from the 52 wells permitted at that time. By the end of 2004, non-exempt wells produced a total of 2,358 ac-ft of which 1,371 ac-ft came



from the Edwards, 934 ac-ft came from the Trinity, and 53 ac-ft from other sources, while total production in 2003 was 2,608 ac-ft (See chart and table for comparison of production). All wells are required to be reg-

istered with the District. Since the opening of the District in 2002, a total of 4,303 wells have been registered. Most of these are exempt from permitting and most were drilled before 2002. In fact, only about

Production from Permitted Wells January through June

Edwards (BFZ):

2004: 607 ac-ft
2005: 707 ac-ft

Trinity:

2004: 378 ac-ft
2005: 345 ac-ft

Other:

2004: 34 ac-ft
2005: 294 ac-ft

Notes: One acre-foot of water will cover one acre of land to a depth of one foot (325,851 gallons). That is roughly the amount of water used by 5 people in one year.

311 are listed as new wells. In 2004, 118 wells were registered, 18 of which were non-exempt and 100 were exempt. Registration of all wells from January to June 2005 is reported at 75.

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Legislative Update



Photo Credit: Jeff Blaylock

Additionally, it tackled the procedure for dealing with management conflicts between GCD management plans and the state water plan. Potential management plan conflicts primarily concern the amount of available groundwater each document identifies. If mediation does not reach a settlement, then the Water Development Board will issue a decision, which can be challenged in a Travis County District Court. Joint groundwater management was an issue that SB 3 addressed with the GMACs, however, that approach was not very popular among GCDs. HB 1763 contained a compromise which now requires all districts located in the same groundwater management area to conduct joint planning meetings for determining the desired future conditions of shared aquifers. With the passage of SB 343, counties with at least 1.4 million people and no GCD can now regulate the placement of water wells. A transportation bill, HB 2702, ensures that groundwater produced for construction of the future TransTexas corridor shall be subject to the permitting process of GCDs, like the Clearwater District.

Two bills passed and signed by the governor allow for the protection of the water rights of landowners. The first, HB 2423, requires groundwater districts to give equal and non-discriminatory treatment to land enrolled in the federal conservation reserve program, while HB 2876 attempts to address the abuse of the water and sewer certificates of convenience and necessity (CCN) issued by the TCEQ. For new CCN applications and amendments to CCNs, the bill requires the applicant to give notice to each landowner with at least 50 acres within the proposed area. For new or amended CCNs, a landowner with at least 25 acres may exclude their property from the proposed area. Moreover, landowners with at least 50 acres may petition to remove their property from an existing CCN. The bill also requires consent for the extension of a municipality's CCN outside of its extraterritorial jurisdiction.

Water conservation was the subject of several bills during this session. Performance standards have been placed on commercial pre-rinse spray valves at 1.6 gallons per minute or less with the passage of HB 2428, while the water and energy performance standards for commercial clothes-washing machines (HB 2429) and a bill placing standards on toilet flappers both failed. One successful piece of legislation was the establishment of the rainwater harvesting evaluation committee, which will develop recommendations for standards on rain-

water capture systems. HB 2430 requires the committee to report harvesting guidelines by December 1, 2006. As the market for these systems increases, the consumer should benefit from these government standards. Additionally, HB 1224 requires the Water Development Board to study and submit a report by January 1, 2007 on take-or-pay contracts in order to determine whether they effect efforts to conserve water. Another bill, HB 578, requires the Regional Water Planning Groups to create an emergency water delivery plan.

Several new GCDs were created through the passage of local bills: the Central Texas GCD, Burnet County; the Duval County GCD; the Lower Trinity GCD, Liberty, Polk, and San Jacinto counties; the San Patricio County GCD; the Starr County GCD; and the Victoria County GCD. The Menard County Water Control and Improvement District No. 1 was given the powers entrusted to GCDs in Chapter 36 of the Texas Water Code. Of some interest, HB 3571 failed, which would have consolidated the Kinney County GCD into the Edwards Aquifer Authority.

While the 79th legislative session was an active one for the filing of water bills, the major ones, like SB 3, were not able to make it out of the legislative process. It is certain that legislators will revisit some of these ideas in future sessions.

DISTRICT SETS ABANDONED WELL POLICY

Before elaborate water treatment plants and miles of delivery infrastructure, water wells were often a landowner's best source of water. These wells dotted the landscape, and as time passed many have now become abandoned.

Today, these abandoned wells pose a threat to animal and human life and give contaminants a direct conduit for entering our groundwater supplies. The Clearwater District recognizes this problem and encourages well owners to cap or properly plug their well, when they no longer plan to use it.

Senate Bill 279, passed in 2003, required Groundwater Districts, like Clearwater, to enter into a Memorandum of Understanding between the Texas

Department of Licensing and Regulation and the Texas Commission of Environmental Quality to coordinate efforts for investigating complaints and referrals of abandoned wells. The MOU requires Clearwater to play a role in these complaints. As a result, the District joined the MOU by issuing a Board resolution on February 17, 2005.

On July 19, 2005, the District adopted a policy that gives Clearwater the initial investigative responsibility, but allows for trained staff at TDLR to determine if a well is deteriorated. When a complaint is received, staff will first notify the landowner, then examine the well (taking pictures, measurements and GPS readings), register the well, provide the landowner with additional information, and then



Well Plugging Demonstration- January 26, 2005

refer the case to TDLR staff. According to State law, a well is considered abandoned if it has not been used for six consecutive months unless the well is non-deteriorated (the casing, pump, and pump column are in good condition), or the non-deteriorated well has been

capped and is capable of withstanding 400 pounds. State law also gives the landowner or licensed well driller the sole authority to plug a well. Clearwater continues to provide well owners information on how to plug a well and periodically sponsors well plugging demonstrations.

DISTRICT AMENDS RULES

Since the last newsletter, the Board has approved a few changes to the District's Rules.

Rule 8.3 Permit Exemptions:

October 18, 2004- The Board approved the following types of wells as exempt: dewatering, leachate, test and monitor wells. These wells are required to follow District spacing requirements and must be approved and registered with the District. Exempt wells do not have to obtain a drilling permit or an operating permit.

April 18, 2005- The tract size requirement for a well to be considered exempt was changed to "10 acres or larger." Exempt water wells still must be used for domestic, livestock or poultry and must be incapable of producing 25K gallons/day.

Rule 8.1.3 Minor Permit Amendments:

December 14, 2004- Minor Operating Permit amendments for non-exempt wells were approved. They include minor increases in permit allotment.

Minor permit amendments will undergo administrative instead of Board approval.

June 21, 2005- The Board added a minor permit amendment for small increases of transport outside of the County.

Rule 8.9.2 Hydrogeological Report for Non-Exempt Wells

December 12, 2004- The Board approved an amendment for the conditions which require an applicant for operating or drilling permits to produce a hydrogeological report. The report is now required for permits over 37 ac-ft or if the Board determines that aquifer conditions warrant the report. Guidelines for submitting the Hydrogeological Report are available.

Rule 11.5 Spacing Requirements

March 29, 2005- This amendment allows for wells to be spaced within 100 feet of each other, if they produce from different aquifers. Completion requirements were set to prevent the co-mingling of water.

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GAM Results

model were run with pumping rates in Bell County ranging from 1,700 ac-ft to 10,000 ac-ft. Based on results from the simulation, an annual availability figure of 7,500 ac-ft would meet the preferred spring flow goal (200 ac-ft) in all but three months of the 1950s drought and would meet the minimum goal every month. The original District management plan, certified in 2001, identified 1,315 ac-ft/year based on old TWDB studies; however, the new figure of 7,500 ac-ft will be submitted when the District revises its plan in January 2006.

Results from the Trinity GAM were given to the Board on May 24, 2005. The model for the Trinity-Woodbine aquifer in Bell County consisted of three major layers. For the upper layer (Paluxy and Glen Rose), the Board set a management goal to leave 50% of the available drawdown after 50 years for confined portions and an objective to leave 95% of the saturated thickness of

unconfined portions after 50 years. This resulted in an availability of 992 ac-ft/year. Since the middle layer (Hensell) is confined, the management objective was to leave 50% of the available drawdown after 50 years of pumping, yielding an availability figure of 1,100 ac-ft/year. GAM simulations for the lower layer (Hosston) where run using the 50% drawdown after 50 years objective, however, this benchmark was not attainable with the calibration of the model. TCB, therefore, recommended 5,000 ac-ft for that layer. Overall, the new availability figure for the Trinity will be set at 7,092 ac-ft. Originally, the management plan identified 2,645 ac-ft/year.

Annual Availability Figures

Edwards (BFZ) Aquifer:

Total: 7,500 ac-ft

Trinity Aquifer:

Upper Layer: 992 ac-ft
 Middle Layer: 1,100 ac-ft
 Lower Layer: 5,000 ac-ft
 Trinity Total: 7,092 ac-ft

**Clearwater
Underground Water
Conservation District**

CJWCDC Directors & Terms:

Leland Gersbach—Precinct 1
2004-2008 (Secretary)

Horace Grace—Precinct 2
2002-2006 (President)

Wallace Biskup—Precinct 3
2004-2008 (Vice President)

Judy Parker—Precinct 4
2002-2006 (Director)

Ricky Preston—At large
2002-2006 (Director)

**CJWCDC Public Advisory
Committee:**

Vince Cortese—Precinct 1

Vacant—Precinct 2

Marvin Green—Precinct 3
(Committee chair)

John Mayer—Precinct 4

David Cole—At Large

***Aquifer Monitoring
Sites Needed***

*Help us collect data on the
aquifers—contact our of-
fice if your well is avail-
able as a monitoring site.*

Have you Moved?

*Contact our office to up-
date your name/address,
so you can continue to
receive Clearwater Up-
dates.*

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Belton TX 76513

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PRESIDENT'S MESSAGE

I would like to thank the citizens of Bell County for electing the current Directors. The Board has been a hardworking group of people who have been good stewards of the tax payers' dollars. This can be attested to by the fact that the citizens of Bell County authorized the District to operate on one penny per one hundred dollars of valuation and the directors have been able to accomplish management of the District with less than one half cent per one hundred dollars. Additionally, we have lowered your tax rate each year the District has been in existence.

The Board has and is accomplishing the following tasks:

- Completed scientific studies that reveal more water in Bell County than reported by the State.
- Updated and revised the



President Horace Grace

District Rules.

- Issued Historic Use permits to protect existing users.
- Established a program to monitor Aquifer levels.
- Set up a basic water quality testing laboratory for well owners.
- Works to get surface water throughout Southern Bell County.

- Hosts the Annual Water Symposium.
 - Provides literature packets and bookcovers to schools.
 - Participates in the Major Rivers Water Education Program for Schools.
 - Holds an Annual Essay/Poster Contest on Water Conservation for all Bell County 5th graders.
 - Sponsors Earth Day events.
 - Maintains a resource library for public Use.
 - Publishes Newspaper articles on the Water Cycle and the Aquifers.
 - Provides website, www.clearwaterdistrict.org
- Thank you for your trust and support,

Horace Grace

HISTORIC USE PERMITS ISSUED

During the past year, the District has processed Historic Use applications for existing non-exempt users. Non-exempt users are required to have a permit; however, the new historic use program will protect these existing users, if there is ever a water shortage. One acre-foot equals 325,851 gallons.

Summary of permits issued:

Edwards (BFZ): A total of 1,908.50 ac-ft of historic use permits have been issued to the following well owners: Arthur Wade Capps, Foster Stagecoach Properties, Inc., Salado Water

Supply Corporation (WSC), 7KX Ranch, Salado ISD, and Schwertner Farms. Operating Permits issued for 2005 total 370.76 ac-ft. Exempt wells use is estimated at 285 ac-ft; therefore, 2,564.26 ac-ft of the available 7,500 ac-ft has been allocated.

Trinity: A total of 1,502.6 ac-ft of historic use permits have been issued to the following well owners: Mill Creek Inn, Franklin Industrial Minerals, Bell Co. WCID #2, City of Rogers, Oenaville/Belfalls WSC, Moffat WSC, Armstrong WSC, East Bell WSC, City of Troy, Bell-Milam-Falls WSC,

Little Elm Valley WSC, Bell Co. WCID #5, Leon River Turkey Farms, Pendleton WSC, and City of Holland/Holland ISD. Operating Permits issued for 2005 total 324.46 ac-ft. Exempt well use is estimated at 811 ac-ft; therefore, 2,638.06 ac-ft of the available 7,092 ac-ft has been allocated.

Other Sources: A total of 271.8 ac-ft of historic use permits have been issued to one well owner. Operating Permits issued for 2005 total 28.72 ac-ft. There is no availability figure for the other sources of groundwater.

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(NAME)
(STREET)
(CITY)