

E1550.6
G286
2009/D1



Government Publications
Texas State Documents



EDWARDS AQUIFER AUTHORITY

GENERAL MANAGER'S REPORT

January 2005

inside

Message from the General Manager
Notes from the Underground
December 2004 Board Meeting
Initial Regular Permits
Oath of Office Ceremony
Comprehensive Water Management Plan
Habitat Conservation Plan
Well Registration
Real-time Precipitation Gauging System
December 2004 Rainfall Totals
Groundwater Withdrawal Transfers
2004 Aquifer Management Fees
2005 Aquifer Management Fees
Initial Regular Permits
Monthly Water Levels & Springflow Report
Calendar of Events

Editor: Margaret Garcia

Graphic Design: Ileana R. Aleman

The General Manager's Report
is published monthly.

Our Mission:

*The Authority is committed to
Manage, Enhance and Protect
the Edwards Aquifer system*



Message from the General Manager

Robert J. Potts

At their regular monthly meeting held Tuesday, December 14, 2004, the Edwards Aquifer Authority Board of Directors elected the following officers for 2005: Mr. Douglas R. Miller, District 9 (Comal/Guadalupe counties), as Chairman; Mr. Rafael Zendejas, District 5 (Bexar County) as Vice Chairman; Mr. Hunter Schuehle, District 12 (Medina County), as Treasurer; and Dr. Levi Jackson, III, District 2 (Bexar County), as Secretary. Ms. Susan K. Hughes, District 6 (Bexar County), was also selected as the At-Large Member to the Executive Committee.

In addition, there are two new members to the board Mr. Mario H. Cruz and Mr. Clayton Binford. Mr. Cruz was elected November 2, 2004 as Uvalde - Director District 14 and Mr. Binford was appointed by the Medina County Commissioner's Court as the Medina County Representative.



Notes From the Underground

Geary M. Schindel, P.G., Chief Technical Officer

Last month in this column, I reported on the results of the October 2004 tracer testing work performed by the Authority and George Veni and Associates in northern Bexar County. Two dyes were injected, one into a sinkhole and the other in a cave, both located near Blanco Road and 1604. The dyes were recovered in one of the Authority's down gradient monitoring wells. Both the dye injection sites and the dye recovery well are located in the Edwards Limestone. The results of the tracer tests showed rapid groundwater velocities from both injection locations of approximately 5,000 feet per day for first arrival and 3,000 feet per day for the peak arrival of the dye masses. The tracer tests covered a distance of over 12,000 feet in the recharge zone and transition zone. In both tracer tests, the dyes passed by, but were not detected in a number of Glen Rose Limestone and Edwards Limestone monitoring and pumping wells. Results of the tracer testing showed rapid groundwater flow in preferential flow paths (conduits) which is typical of a well developed karst terrane.

Additional tracer testing in northern Bexar County were performed in early December. The first tracer test was performed at Poor Boy Baculum Cave (PBB), located on Camp Bullis. The entrance to PBB Cave begins in the Edwards Limestone but the cave is over 135 feet deep and extends through the Dolomitic and Basal Nodular members of the Edwards and into the upper member of the Glen Rose Formation. The cave was mapped in 1995 by George Veni and Associates as part of a karst features survey for Camp Bullis. During the initial mapping of the cave, no groundwater was detected. However, during the December dye injection, standing water was found in the bottom of the cave. This is most likely due to the high groundwater levels across the region. Uranine dye was placed into the pool at the bottom of PBB Cave and approximately 5,000 gallons of potable water was injected to help flush and mix the dye with the groundwater.

The Uranine from PBB Cave was detected within four days of injection at monitoring well AY-68-28-608, more than 19,400 feet from the injection location. This implies an apparent groundwater velocity approaching 5,000 feet per day. Monitoring well 608 is the same location in which the October tracer tests were detected. What is most interesting about the PBB Cave trace is that the dye was injected into the Trinity Aquifer (Glen Rose Limestone) and appeared in an Edwards Aquifer monitoring well. The tracer test is conclusive evidence that there is direct communication between the two aquifers with the dye crossing at least 4 major mapped faults. The dye also flowed parallel, rather than perpendicular, to the locally mapped potentiometric surface. While direct communication from the Trinity to the Edwards Aquifer has been postulated by some hydrologists for a number of years, and discredited by others, this was the first conclusive proof. The tracer test shows that land use activities, and even groundwater withdrawal in the Trinity Aquifer near the Trinity/Edwards boundary, can influence the Edwards Aquifer.

The second tracer test was in December 2004, performed at Genesis Cave located near 1604 and Stone Oak Parkway also in Bexar County. Dye was injected into the cave on December 8 and has yet to be detected in any of the monitoring locations for the test. It is difficult to determine why a tracer test is unsuccessful. As noted in the December column, tracer testing in the Edwards Aquifer is very difficult because of the limited number of wells for sampling and the low probability of these wells to intersect the appropriate conduit in the aquifer. Other reasons for a tracer test failure may be that an insufficient amount of dye was used, the monitoring system was not adequate, or that a sufficient amount of time hasn't passed for the dye to appear. Future tracer tests may help to resolve this question.

As is readily apparent from the results of the successful tracer tests, dye tracing is a very powerful tool in understanding the inner workings of karst aquifers.

December 2004 Board Meeting

Authority Directors Extend HCP Public Comment Period

by Margaret Garcia,
Program Manager – Public Affairs



At their regular monthly meeting held Tuesday, December 14, 2004, the Edwards Aquifer Authority Board of Directors extended the public comment period for the Authority's draft Habitat Conservation Plan (HCP) through Friday, January 21, 2005. The original public comment period closed December 3, 2004. However, to give interested parties additional time to consider and analyze the document and provide comments, the Authority will now accept written comments on the draft HCP through 4:30 p.m. Friday, January 21, 2005.

The board also voted to proportionally adjust all Initial Regular Permits (IRPs) in accordance with the Authority's Final Rules. Therefore, all IRPs that became effective on or before January 1, 2005, will be proportionally adjusted under the Authority's Rules and the authorized groundwater withdrawal amounts will be re-calculated for Initial Regular Permits for the Year 2005.

In other action, Authority directors approved 18 initial regular permits representing approximately 16,800 acre-feet of Edwards groundwater. Fifteen of these permits were for applicants who had previously filed protests on their proposed permits. After further review of the applicants' files, all parties agreed the applicants provided additional documentation to substantiate their claims for more Edwards groundwater than originally proposed by staff. The board also denied one other permit application. To date, the Authority has issued 865 Initial Regular Permit applications representing, 564,087 acre-feet of Edwards Aquifer groundwater withdrawal rights, and denied 213 permit applications. Approximately 19 permit applications remain pending final action. The board also approved one application, totaling approximately 45 acre-feet,



to transfer the use of this groundwater right from west of Cibolo Creek to points east of the creek. Cibolo Creek is considered the dividing line between the western and eastern portions of the aquifer, and separates that portion of the aquifer most immediately affecting the flow at Comal Springs. The board also dismissed Initial Regular Permit applications for all federal facilities. This action was necessary to achieve consistency with rules adopted in December 2003, exempting wells located on federal facilities from the Authority's rules based on the doctrine of sovereign immunity.

Oath of Office Ceremony

by Margaret Garcia, Program Manager – Public Affairs



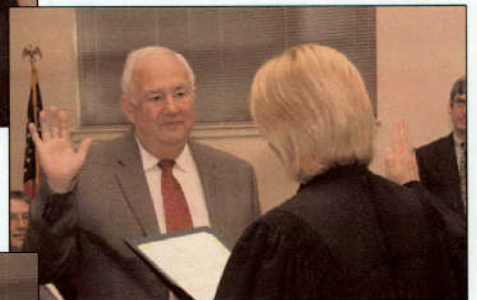
Ten candidates applied for a place on the ballot for the Tuesday, November 2, 2004 election to the Edwards Aquifer Authority Board of Directors. Races in District 6 in Bexar County, District 10 in Hays County, and District 14 in Uvalde County were contested. Races in District 2 and District 4 in Bexar County, District 8 in Comal County and District 12 in Medina County were uncontested.



The winners in the races by county are: Bexar County, District 2 – Levi Jackson, III, District 4 – Bonnie Conner, and District 6 – Susan Hughes; Comal County, District 8 – Ramon Chapa, Jr.; Hays County, District 10 – Kenneth Barnes; Medina County, District 12 – Hunter Schuehle; Uvalde County, District 14 – Mario H. Cruz. In addition, Bob Keith was reappointed as the board representative from the South Central Texas Water Advisory Committee and Clayton S. Binford was appointed by the Medina County Commissioner's Court as the Medina County Representative. New members to the board are Mr. Mario H. Cruz and Mr. Clayton Binford.



On December 14, 2004, Authority directors conducted the Oath of Office Ceremony for directors elected Tuesday, November 2, 2004. The Honorable Sandee Bryan Marion, Justice, Court of Appeals, Fourth District, State of Texas, administered the Oath of Office.



*Congratulations to the
New & Returning Elected Officials*

Comprehensive Water Management Plan

by Rick Illgner, Program Manager – Groundwater Management Strategies

In December, Authority directors approved a Comprehensive Water Management Plan (CWMP) as required in Section 1.25 of the Edwards Aquifer Authority Act. The CWMP contains all the programs, activities, and internal plans that guide the Authority in the management of the Edwards Aquifer. The CWMP was designed and written to provide a comprehensive water management planning tool to assist the Authority in managing the aquifer and to convey information in a format that is easily readable. The approval of the CWMP culminates a four-year endeavor began in January 1999. The CWMP is on the Authority's web site and copies of the CWMP are available for review in the Authority's library.

For more information on the Authority's Comprehensive Water Management Plan please contact Ray Buck, Water Resource Coordinator.

Habitat Conservation Plan

by Rick Illgner, Program Manager – Groundwater Management Strategies

In December, Authority directors extended the deadline for public comment on the draft Habitat Conservation Plan (HCP) through January 21, 2005. Written comments will be accepted at the Authority's offices through 4:30 p.m., Friday, January 21, 2005. The HCP contains over 700 pages of complex, biological, economic, and hydrological information. Authority staff will review all written comments and submit them to the Research & Technology Committee of the Board in early 2005. Once reviewed the draft HCP will be submitted to the U.S. Fish & Wildlife Service. The draft HCP was released for comment in September 2004 and is available on the Authority's website and at the Authority's offices.

For more information on the Authority's Habitat Conservation Plan please contact Bob Hall, Research Coordinator.

Well Registration

by Rick Illgner, Program Manager – Groundwater Management Strategies

In December, in addition to the on-going public information campaign, the Authority conducted a mass mailing to persons in Medina Bexar County. Using Geographical Information (GIS) system data, a San Antonio Water Systems database, and Medina Bexar County tax appraisal rolls, properties likely to contain Edwards water wells were identified.

On December 15, 2004, the Authority mailed 2,446 letters to property owners in Bexar County. As of January 3, 2005, the Authority had received 810 responses for a mailing response rate of 33 %. Bexar County property owners, receiving a letter, were asked to register an existing well or record that no well exists on the property. Of the total responses received, 321 wells were registered and 489 property owners recorded that they did not own an Edwards well.

The Bexar County mailing is the second of five planned mass mailings. The first occurred in Medina County in September 2004. As of January 3, 2005, 654 wells have been registered since the inception of the well registration program.

As noted in an earlier report to the board, the Authority elected to temporarily waive the registration fee and streamlined the registration process in order to facilitate volunteer registration. Voluntary registrants can register over the telephone by simply calling the toll-free number, 1-888-363-6037. A bilingual operator will be available 24 hours per day, seven days a week to assist them. If they prefer, they may register online by accessing the Authority's web page at www.edwardsaquifer.org. As an added bonus, the first 500 registrants will receive a voucher good for a free water analysis; a bacteria test for their well water.

For more information on the Authority's well construction program please contact Ray Buck, Water Resource Coordinator.

Real-time Precipitation Gauging System

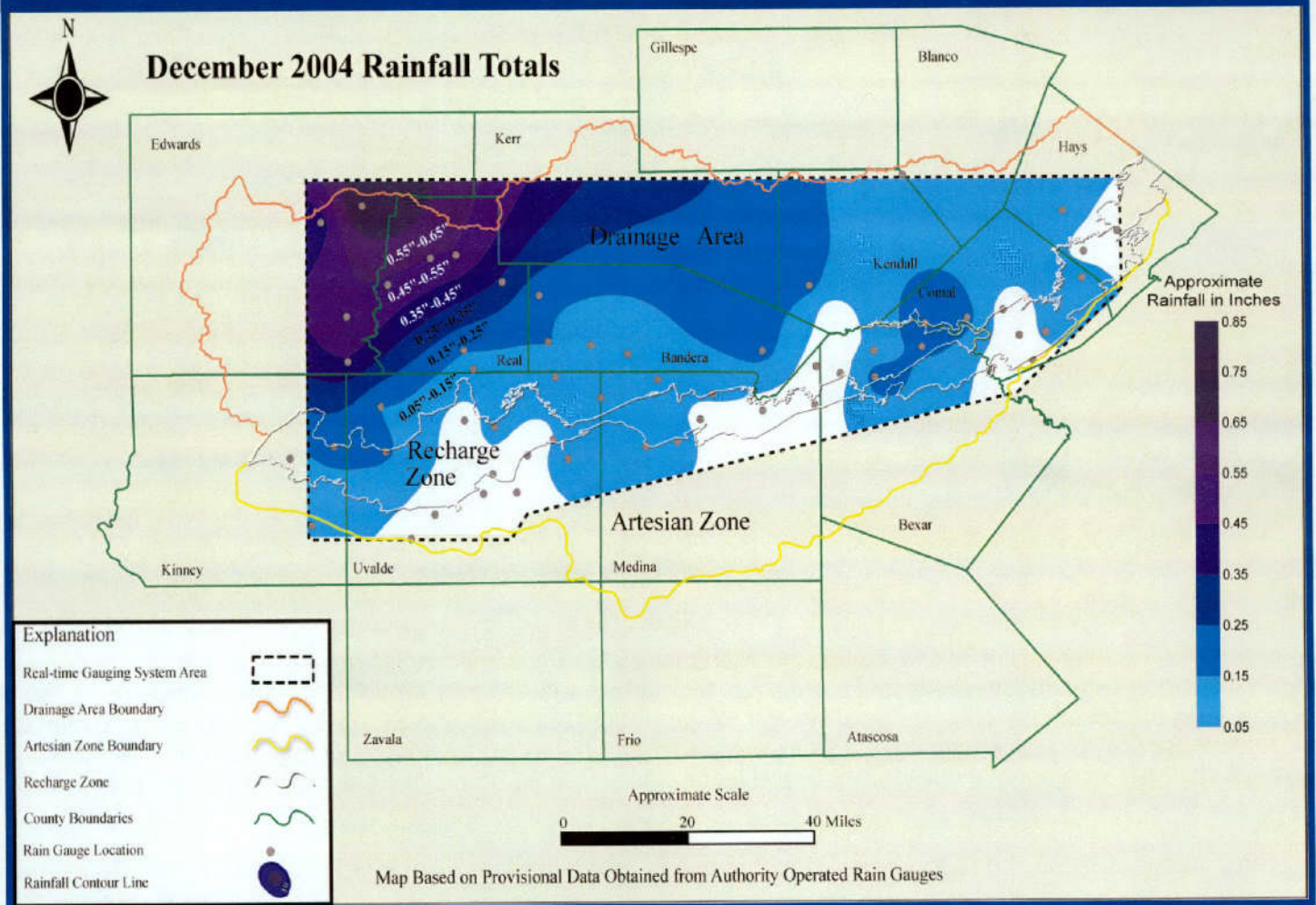
by Earl Parker, Program Manager – Investigations and Monitoring

The Authority operates 58 "real-time" precipitation gauges that transmit data to the Authority office every 6 minutes. The rain gauges are generally located over the Edwards Aquifer Drainage Area and Recharge Zone. Acquired data is used in aquifer recharge calculations, precipitation enhancement program evaluations, and a variety of research projects.

The December 2004 rainfall totals map, as recorded by the real-time gauging system, indicated very low precipitation measurements to zero rainfall over the gauging system area. The year ended with trace rainfall measurements being recorded at the official National Weather Service stations at Uvalde, Hondo, San Antonio, New Braunfels and San Marcos. San Antonio experienced the fifth lowest rainfall totals for December measuring only 0.08 inches; this follows November's record-breaking month for precipitation. Average rainfall this month measured at 0.14 inches across the region (as compared to 6.0 inches in November) with the highest measurement of 0.81 inches recorded in far northeastern Edwards County. Rainfall totals exceeding one-half inch were recorded only in the northwestern portion of the Edwards Aquifer Drainage Area, with large portions of the Recharge Zone measuring zero precipitation in December. Eighteen of the fifty-eight recording stations measured zero rainfall this month.

If you have questions regarding the Authority's real-time precipitation gauging system, please contact Earl Parker, Program Manager – Investigations and Monitoring.

December 2004 Rainfall Totals



Groundwater Withdrawal Transfers

by Rick Illgner, Program Manager – Groundwater Management Strategies

In December 2004, Authority staff processed 57 partial sales and lease transfers representing 7865.045 acre-feet in Edwards Aquifer groundwater withdrawal rights. Since the inception of the transfer program, Authority staff has processed 1192 partial sales and lease transfers representing 219446.896 acre-feet of groundwater withdrawal rights. Of the 1192 partial sale and lease transfers completed, only 803 are currently active representing 142087.484 acre-feet. Active transfers include 113 sub-leased transfers representing 26928.952 acre-feet. In addition, Authority staff processed nine changes of ownership or miscellaneous transfers representing 3530.728 acre-feet of Edwards Aquifer groundwater.

Transfer forms are located at the Authority's main office located at 1615 N. St. Mary's Street. For more information on the Authority's transfer program contact Naomi Esquivel, Program Associate.

December 2004 Transfer Table Summary

Transfer Description	Number of Transfers	Acre-Feet
December (12/1/04 - 12/31/04) Transfers (Partial Sales, Leases, Sub-leases, and Re-sales)	57	7865.045
December (12/1/04 - 12/31/04) 100% Change of Ownership (Sale of Place of Use) or Miscellaneous Transfers	9	3530.728
Total Number of Transfers (Partial Sales, Leases, and Sub-leases, and Re-sales) Completed as of 12/31/04	1,192	219446.896
Total Number of Active Transfers (Partial Sales, Leases, Sub-leases, and Re-sales) as of 12/31/04	803	142087.484
Total Number of Active Sub-leased Transfers as of 12/31/04	113	26928.952
Total Number of Active Re-sale Transfers as of 12/31/04	135	4746.892

Transfer forms are located at the Authority's main office located at 1615 N. St. Mary's Street. For more information, contact Naomi Esquivel, Program Associate.

2004 Aquifer Management Fees

by Brock Curry, Program Manager – Administration

Staff issued 294 non-agricultural aquifer management fee invoices based on authorized use for 2004. These invoices were based on an aquifer management fee rate of \$29.00 per acre-foot. As of December 31, the Authority has collected \$9,185,015 or 97% of the budgeted amount. Aquifer management fees totaling \$8,317 from 18 pumpers are considered delinquent and are scheduled to be considered by the Authority's Permits Committee at the January meeting.

Aquifer management fees for 2003 agricultural use were due January 31, 2003. As set forth in the Edwards Aquifer Authority Act, the aquifer management fee rate for agricultural users is \$2.00 per acre-foot. As of December 31, the Authority has received reports from 652 agricultural users totaling 82,996 acre-feet of groundwater used in 2003. The Authority collected \$175,122 in aquifer management fee revenue or 88% of the amount budgeted.

All dollar amounts are unaudited and will not be considered final until the Authority's audit is completed by April 30, 2005.

2005 Aquifer Management Fees

by Brock Curry, Program Manager – Administration

Staff issued aquifer management fee invoices for 2005 non-agricultural use on January 6, 2005. These invoices were based on a \$38 per acre-foot fee rate. For those pumpers who prefer to pay their aquifer management fees monthly, the first payment is due January 31. For those pumpers preferring to pay their fees in one lump sum, payment in full is due March 1.

Annual use reports for agricultural users are due January 31, 2005. Pumpers reporting Edwards 2004 groundwater use are required to also remit payment of aquifer management fees. As set forth in the Edwards Aquifer Authority Act, the aquifer management fee rate for agricultural users is \$2.00 per acre-foot.

If you have questions regarding the aquifer management fees, please contact Brock Curry, Program Manager – Administration.

Initial Regular Permits

by Steven D. Walthour, Program Development

In December, the Edwards Aquifer Authority Board of Directors granted nineteen groundwater withdrawal permits representing approximately 12,172 acre-feet of Edwards Aquifer groundwater withdrawal rights and denied one permit application.

To date the Authority has issued final decisions on 1078 Initial Regular Permit applications representing approximately 98% of all applications filed with the Authority. The Authority has granted 867 permits and denied 211 permit applications. The Authority has granted a total of 564,088 acre-feet of Edwards Aquifer permitted groundwater withdrawal rights. Approximately 19 permit applications remain, representing approximately 4,665 acre-feet of Edwards groundwater .

For more information regarding initial regular permits, contact Bob Burns, Program Coordinator.

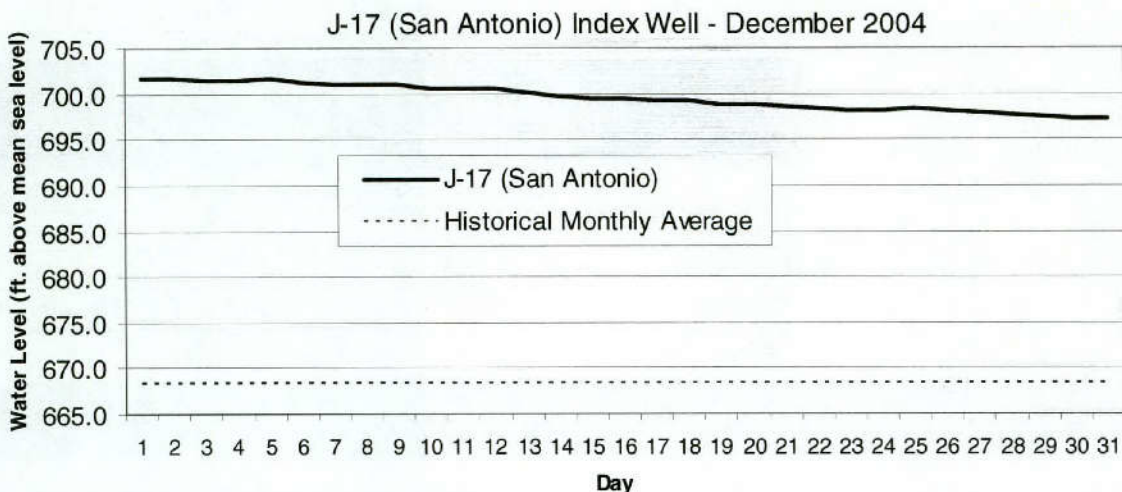
Monthly Water Level & Springflow Report

Aquifer levels can be viewed on the Authority's website at www.edwardsaquifer.org

J-17 (San Antonio) Index Well – December 2004

The J-17 index well level average in December 2004 was 699.6' above mean sea level (msl) - up 4.8 feet from the last month's average of 694.8' (msl). The December 2004 high was 701.7' (December 2) and the low was 697.3' (December 31), a range of 4.4 feet.

The December 2004 average is 31.3 feet above the J-17 historical monthly average for December of 668.3' msl.



J-17 (San Antonio) Index Well – Combined Historic Record for Two Wells: 1932-2003

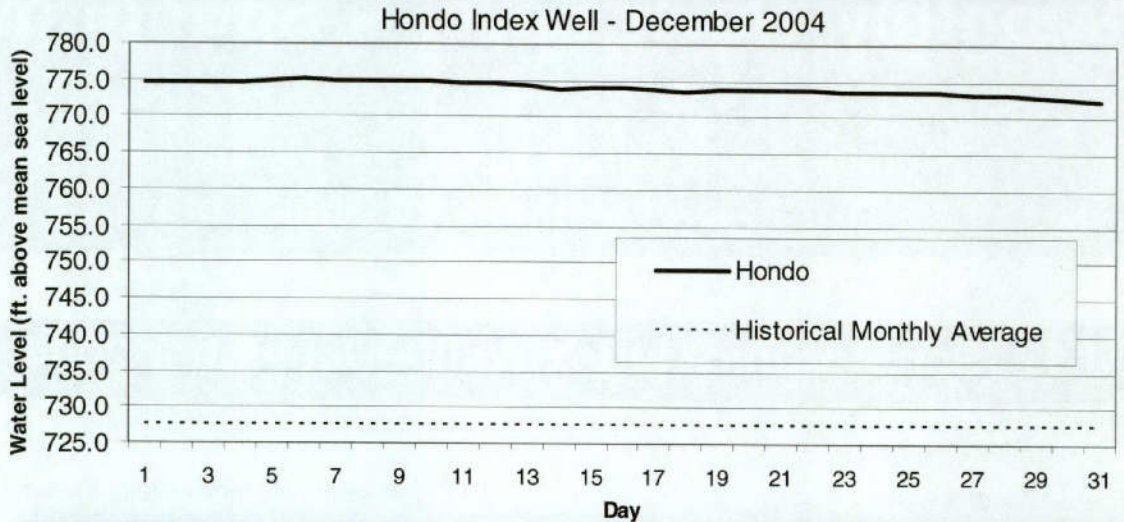
	December 2004	December 2003	Historical Record	
Maximum	701.7	680.9	June 14, 1992	703.3
Minimum	697.3	679.2	August 17, 1956	612.5
Average	699.6	680.1	December (1932-2003)	668.3



Hondo Index Well – December 2004

The Hondo index well level average in December 2004 was 774.0' above mean sea level (msl) - up 7.6 feet from 766.4' msl in November 2004. The December 2004 high was 775.1' (December 6) and the low was 772.3' (December 31), a range of 2.8 feet.

The December 2004 average is 46.4 feet above the Hondo Well historical monthly average for December of 727.6' msl.

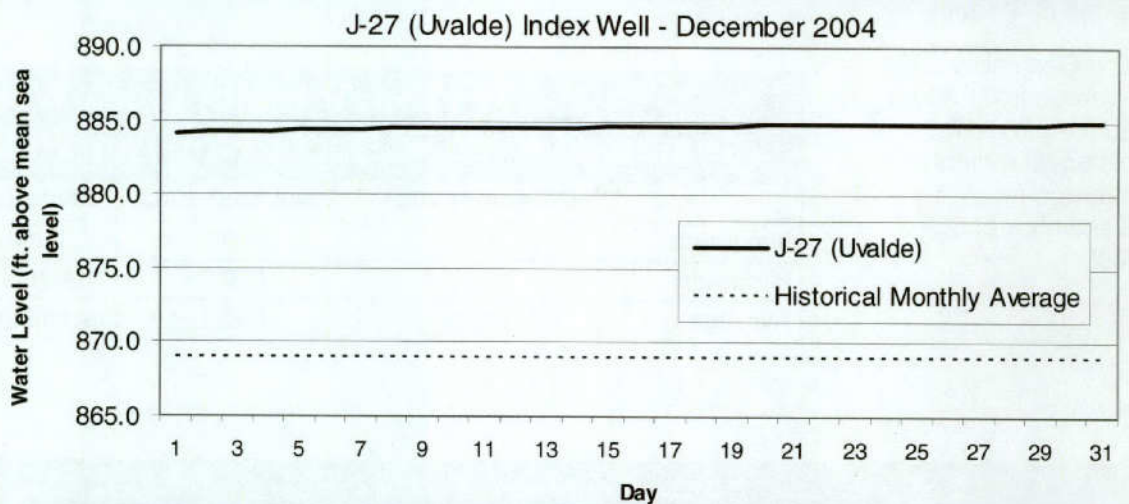


Hondo Index Well – Historic Record: 1986-2003				
	December 2004	December 2003	Historical Record	
Maximum	775.1	740.0	June 14, 1992	779.0
Minimum	772.3	737.2	June 29, 1990	651.0
Average	774.0	738.6	December (1986-2003)	727.6

J-27 (Uvalde) Index Well – December 2004

The J-27 index well level average in December 2004 was 884.6' above mean sea level (msl) - up 1.0 foot from last month's average of 883.6' msl. The December 2004 high was 884.9' (last occurring on December 31) and the low was 884.2' (last occurring on December 2), a range of 0.7 feet.

The December 2004 average is 15.6 feet above the J-27 historical monthly average for December of 869.0' msl.

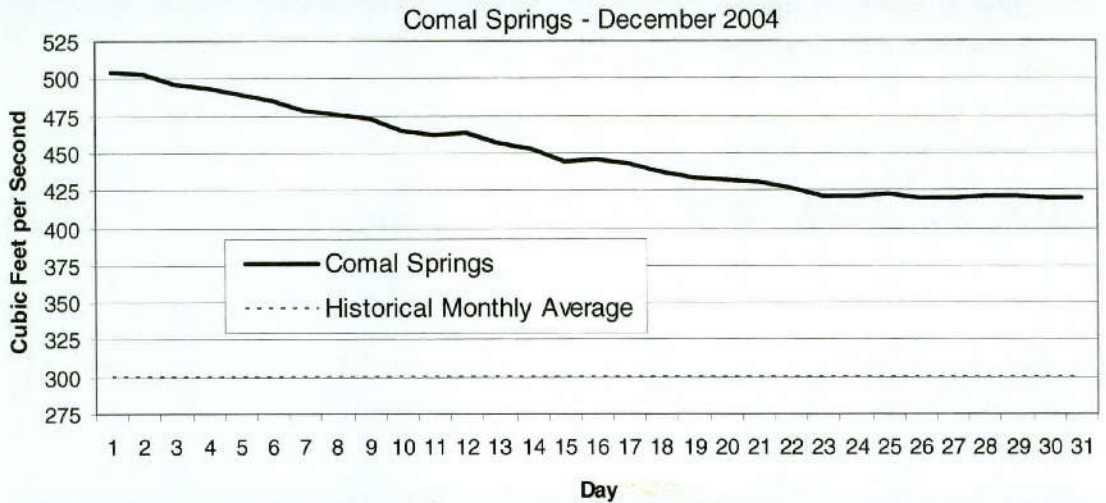


J-27 (Uvalde) Index Well – Historic Record: 1940-2003				
	December 2004	December 2003	Historical Record	
Maximum	884.9	880.3	June 15, 1987	889.0
Minimum	884.2	880.0	April 13, 1957	811.0
Average	884.6	880.1	December (1940-2003)	869.0

Comal Springs – December 2004

Comal springflow averaged 451 cubic feet per second (cfs) in December 2004 - up 13 cfs from last month's average of 438 cfs. Comal springflow reached a maximum of 505 cfs (December 1) and a minimum of 420 cfs (last occurring on December 31), a range of 85 cfs.

The December 2004 average was 152.0 cfs above the historical monthly average of 299.0 cfs.

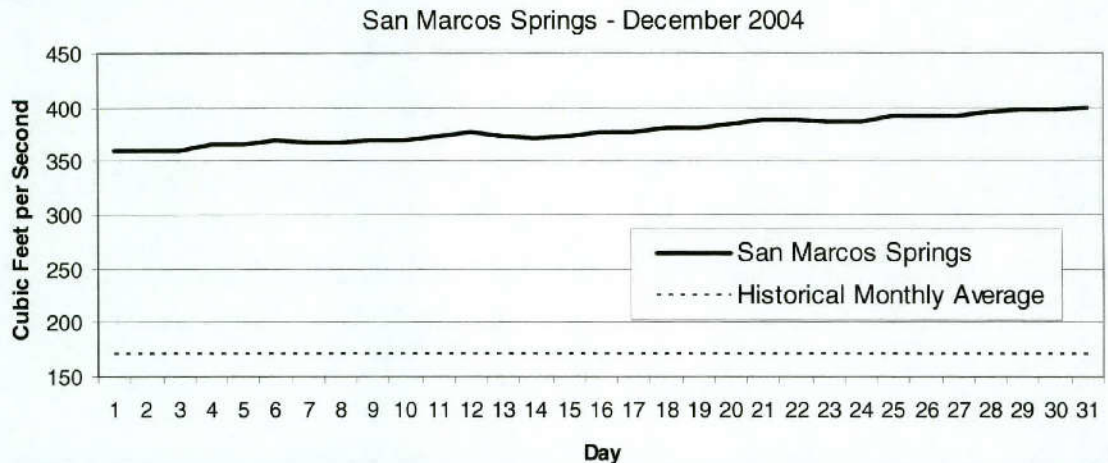


Comal Springs Historic Record: 1927-2003				
	December 2004	December 2003	Historical Record	
Maximum	505	367	November 14, 1973	534.0
Minimum	420	359	August 8, 1956	0.0
Average	451	364	December (1927-2003)	299.0

San Marcos Springs – December 2004

San Marcos springflow averaged 379 cfs in December 2004 - up 126 cfs from last month's average of 253 cfs. San Marcos springflow reached a maximum of 399 cfs (December 31) and a minimum of 360 cfs (last occurring on December 3), a range of 39 cfs.

The December 2004 average was 207.9 cfs above the historical monthly average of 171.1 cfs.



San Marcos Springs Historic Record: 1956-2003				
	December 2004	December 2003	Historical Record	
Maximum	399	166	March 12, 1992	451.0
Minimum	360	156	August 15, 1956	46.0
Average	379	162	December (1956-2003)	171.1



**EDWARDS AQUIFER
AUTHORITY**

1615 N. St. Mary's Street
San Antonio, Texas 78215

210.222.2204 or 1.800.292.1047
www.edwardsaquifer.org

BE AQUIFER AWARE

CALENDAR OF EVENTS FOR JANUARY & FEBRUARY

JANUARY

Tues. 1/11	4 PM	Board Meeting, Hondo High School, 2603 Avenue H, Hondo, TX
Mon. 1/17		EAA Offices Closed, Martin Luther King Jr. Holiday
Tues. 1/25	11 AM 1 PM 2 PM	Aquifer Management Planning Committee Legislative Committee Permits Committee
Wed. 1/26	11 AM 2 PM	Finance/Administrative Committee R&T Committee

FEBRUARY

Tues. 2/8	3 PM	Board Meeting, Edwards Aquifer Authority, Conference Center 1615 N. St. Mary's Street, San Antonio, TX
Mon. 2/21		EAA Offices Closed, President's Day Holiday
Tues. 2/22	11 AM 1 PM 2 PM	Aquifer Management Planning Committee Legislative Committee Permits Committee
Wed. 2/23	11 AM 2 PM	Finance/Administrative Committee R&T Committee
Mon. 2/28	12 PM	Executive Committee

Authority meeting times & dates are subject to change.

Visit our website at www.edwardsaquifer.org for up-to-the minute information on meeting times and dates.