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EDWARDS AQUIFER AUTHORITY GENERAL MANAGER'S REPORT

September 2003

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Message from General Manager Gregory M. Ellis

EAA Adopts Well Construction Rules

On August 11, 2003, the Edwards Aquifer Authority (the Authority) Board of Directors adopted new rules for well construction and plugging standards (EDWARDS AQUIFER AUTHORITY RULES 713, SUBCHAPTERS A-D). The new rules became effective on August 21, 2003. The well construction and plugging rules are designed to improve water quality through improved well construction and plugging standards.

The Authority's well construction and plugging rules affect Edwards Aquifer wells, wells constructed through the Edwards Aquifer, and anyone who drills or works on Edwards Aquifer wells. The Authority well construction and plugging permits are required for Edwards Aquifer wells and wells constructed or plugged through the Edwards Aquifer. Well owners who wish to obtain a permit will have to complete an Edwards Aquifer Authority well construction application or a well plugging application.

The Authority's well construction standards require several new procedures, including:

1. Pressure cementing the annular space between the borehole and casing for all new wells.

(continued on next page)

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- Calendar of Events

Editor: Margaret Garcia

The General Manager's Report is published monthly.

Our Mission:

The Authority is committed to manage and protect the Edwards Aquifer system and work with others to ensure the entire region of a sustainable, adequate, high quality, and cost effective supply of water, now, and in the future.

EAA Adopts Well Construction Rules *(continued)*

by Gregory M. Ellis, General Manager



2. The borehole in new wells must be two inches bigger than the casing, except for exempt wells.
3. Geophysical logging is required (gamma and caliper logs) for new, non-exempt wells (irrigation, industrial, and municipal) and new wells drilled through the Edwards Aquifer.

The Authority's well plugging standards also require several new procedures, including:

1. Pressure cementing the annular space between the borehole and casing for all abandoned wells completed in or drilled through the Edwards Aquifer.
2. Geophysical logging is required (gamma and caliper logs) for all abandoned wells.

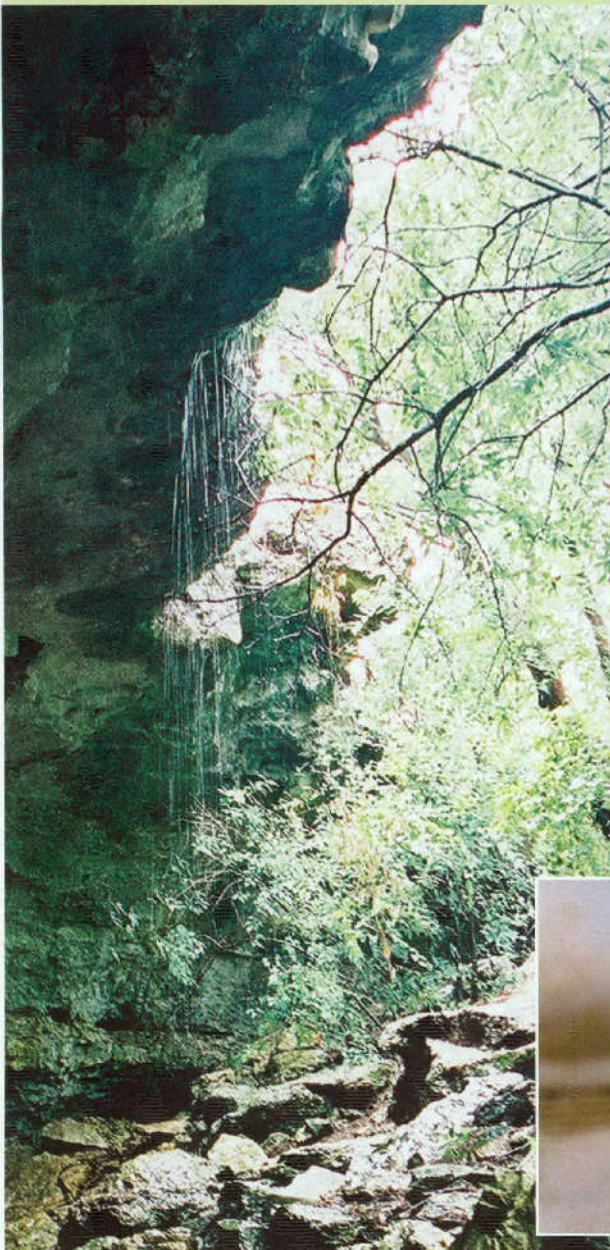
The Authority's new well construction and well plugging rules also detail requirements for closed system geothermal wells, monitoring wells, wells encountering undesirable water, and well pump installations.

The Authority's rules and regulations can be viewed on the Authority's homepage at www.edwardsaquifer.org.

For more information regarding the Authority's well construction program, contact Jeff Robinson, Regulatory Programs Coordinator.

Edwards Aquifer Optimization Program Update

by John Hoyt, Program Manager
Aquifer Science



The basic description and purpose of the Edwards Aquifer Optimization Program (EAOP) is repeated in the following paragraph to provide background information for new readers and to provide a reference for the regular reader. Subsequent paragraphs provide information relevant to the specific report month.

The Edwards Aquifer Authority (the Authority) has undertaken the Edwards Aquifer Optimization Program (EAOP), a comprehensive program for the study and management of the Edwards Aquifer. The EAOP includes a series of seventeen interrelated, mission-directed biologic and hydrogeologic research studies known as the Optimization Technical Studies (OTS.) The OTS are designed to evaluate potential technical options for increasing the amount of water stored in the Edwards Aquifer and identify various methods for optimizing the amount of water available for withdrawal. Data and information obtained from the OTS will provide aquifer managers with the tools necessary to make scientifically-sound decisions to benefit aquifer users and preserve the environment supported by the aquifer, including the Comal and San Marcos Springs and downstream aquatic habitats.

In August 2003, the board approved one OTS-related item and the Research and Technology (R&T) Committee voted to recommend the board approve one OTS-related item. On August 11, the board voted to approve a joint funding agreement (JFA) between the Authority and the American Water Works Association Research Foundation (AWWARF). The JFA with AWWARF is for work to develop a new generation computer model for the enhanced characterization and representation of flow through karst aquifers. The work will be funded jointly by the Authority, Southwest

(continued on next page)



Edwards Aquifer Optimization Program Update *(continued)*

by John Hoyt, Program Manager – Aquifer Science



Florida Groundwater Management District, and AWWARF. Six universities and two groundwater management districts will also provide in-kind services for the project.

On August 27, the R&T Committee voted to recommend the board approve an interlocal cooperation agreement (ILA) between the Authority and Texas A&M University (TAMU) for a study titled “Augmenting Groundwater Recharge Through Brush Control: A Feasibility Study.” If approved by the board, the ILA with TAMU will determine if recharge to the Edwards Aquifer can be enhanced through the reduction of Ashe Juniper and other woody species (brush) and if so, to what extent. The study will examine the dynamics of precipitation and groundwater recharge by monitoring shallow caves before, during, and after brush removal.

In addition to the OTS-related items discussed above, the following OTS-related studies are currently underway or have been completed:

- Texas wild-rice reproduction.
- Comprehensive and Critical Period Monitoring Program to Evaluate the Effects of Variable Flow on Biological Resources in the Comal and San Marcos Springs Ecosystems.
- Cagle’s Map Turtle instream flow and habitat requirements (completed).
- Edwards Aquifer computer model development.
- Karst aquifer modeling research (AWWARF study).
- Improved aquifer parameter estimation for computer model in-put data sets (completed).
- Edwards Aquifer freshwater/saline water interface studies.
- Hydrologic budget analysis of Medina Lake and Diversion Lake for the North Medina County Flow Path Study.
- Electromagnetic survey in the vicinity of Seco Sinkhole (completed).
- Analysis of structural controls on the Edwards and Trinity Aquifers interface in the Camp Bullis Quadrangle and surrounding area.
- Analysis of structural controls on the Edwards and Trinity Aquifers interface in the Helotes Quadrangle.
- Tracer testing of aquifer flowpaths at Comal and San Marcos springs.
- Leona Formation geophysical survey.
- Development of updated methods for calculating recharge to the Edwards Aquifer (Blanco and Nueces River basins completed).
- Statistical Analysis of Hydrologic Data (completed).
- Edwards Aquifer fracture/conduit study.
- Evaluation of water quality and water quantity benefits of woody species best management practices on selected watersheds in the Edwards Aquifer region.
- Evaluation of augmentation methodologies in support of in-situ refugia at Comal and San Marcos springs.

If you have questions regarding the EAOP or studies listed above, please call John Hoyt, Program Manager – Aquifer Science.

Real-time Precipitation Gauging System

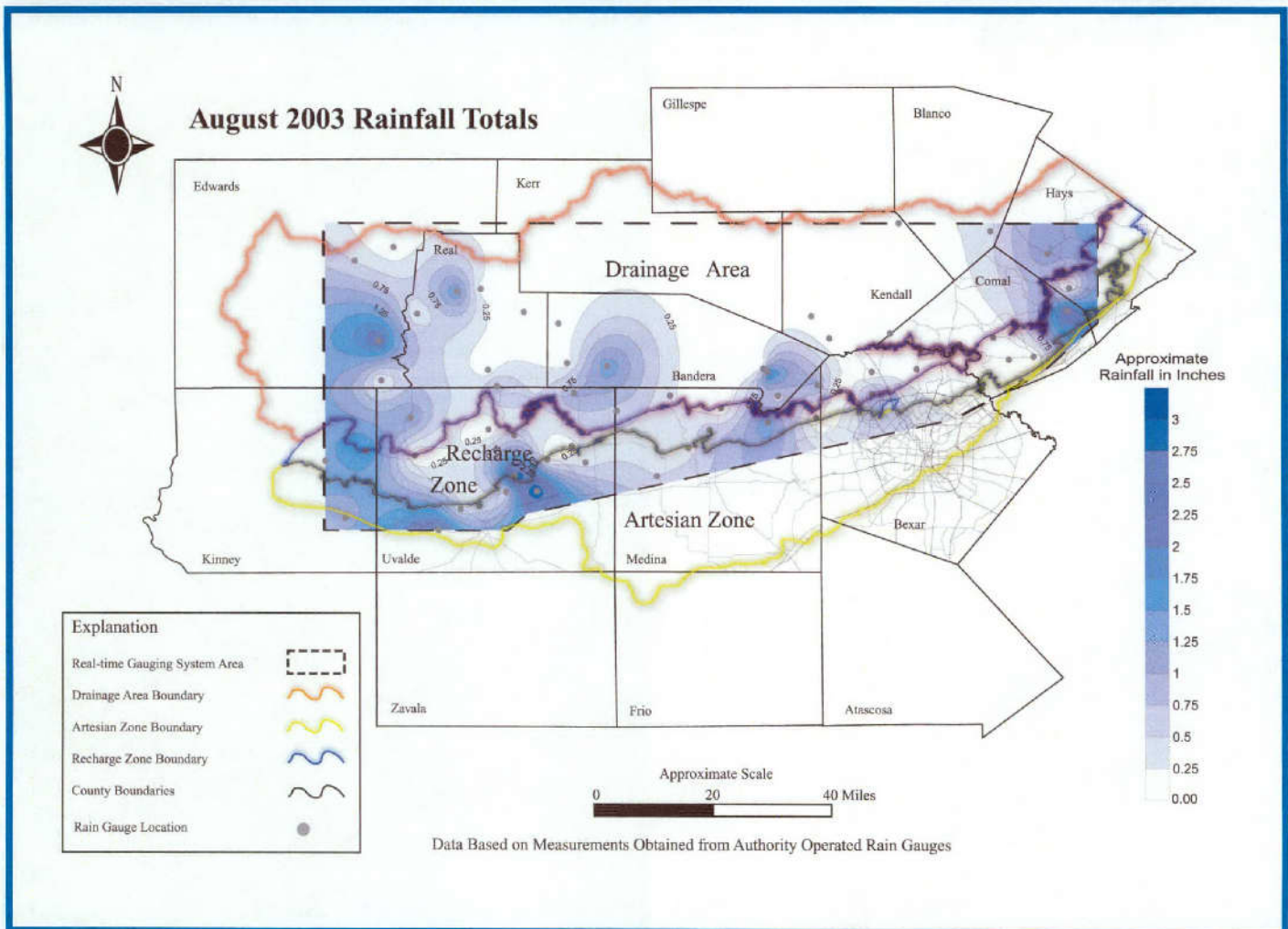
by John Hoyt, Program Manager – Aquifer Science

The Authority operates 65 “real-time” precipitation gauges that transmit data to the Authority office every 6 minutes. The rain gauges are generally located over the Edwards Aquifer Recharge Zone and Drainage Area. Acquired data are used in aquifer recharge calculations, precipitation enhancement program evaluations, and a variety of research projects.

The attached map of the August 2003 rainfall totals, as recorded by the real-time gauging system, indicates that the highest rainfall totals were in the southwestern portion of the gauging system area. Portions of central Uvalde County received over three inches of rainfall. Both the western and eastern extents of the gauging system area received over two inches of rainfall. Less than one inch of rainfall was recorded in Bexar and eastern Comal counties.

If you have questions regarding the attached map or the Authority’s real-time precipitation gauging system, please call John Hoyt, Program Manager – Aquifer Science.

August 2003 Rainfall Totals



Valdina Farm Sinkhole - Photo by Kurt Muehlberg



Inside the Edwards Aquifer

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

Tracer Testing in the Edwards Aquifer



Tracer testing is a well developed and powerful tool used to determine groundwater velocities, delineate groundwater flow paths, and help to identify the source and potential effects of chemical contaminants. The first recorded tracer test using artificial dyes was performed at the stream-sinks of the upper Danube River in 1877. Since then, thousands of tracer tests have been performed in Europe and North America.

While tracer testing has proven to be a safe and powerful tool in other karst aquifers, there had been relatively little tracing in the San Antonio area. However, Nico Howarth and Brian Smith, with the Barton Springs Edwards Aquifer Conservation District (BSEACD) have performed extensive testing in the Austin area and have delineated the flow paths for Barton Springs, Cold Springs, and other related springs. BSEACD's tracing data proved that there are three groundwater basins with recharge areas that extend more than 15 miles from the spring resurgences. The tracer tests also showed very rapid groundwater flow velocities which commonly exceed more than one mile per day. For more information on the BSEACD program, I recommend their web site found at www.bseacd.org.

In the early 1980s, Dr. Albert Ogden, at the Edwards Aquifer Research and Data Center at Southwest Texas State University, performed some testing in the San Marcos Springs area. The results of his traces indicated the presence of two flow paths at San Marcos Springs and also indicated rapid groundwater velocities. This work indicated tracer testing could be performed in the San Antonio segment of the aquifer.

As part of the Focused Flow Path task identified in the Authority's Optimization Technical Studies program, the Authority has recognized the utility of developing a tracer testing program in the Edwards Aquifer.

In March 2002, the Authority initiated a tracer testing program at Comal Springs in New Braunfels. Two sites were chosen to inject dye. The first site selected, the LCRA well, intersects the deep artesian section of the aquifer. Dye was injected into this 600-foot-deep well which appeared 36 hours later in springs located in the northern portion of Landa Lake. A groundwater velocity of 2,000 feet per day

(continued on next page)

was calculated for this portion of the artesian zone. The second test involved the injection of a different dye into the Panther Canyon Well, located near Spring 1 at Landa Park. Panther Canyon Well is located on the recharge zone. The dye did not appear at Spring 1, the closest spring to the well, but actually was detected at Spring Run 3 about 3 hours after injection and indicated a velocity of 6,000 feet per day in the recharge zone.

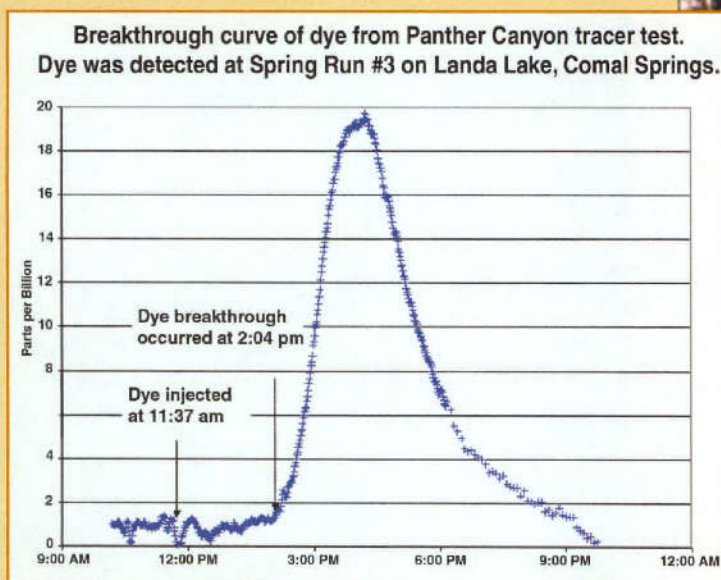
The Authority has also performed two tracer tests in the San Marcos Springs area. One of the tracers, injected into Ezell's Cave, was detected in Wonder Cave, two wells, and San Marcos Springs. The second tracer test was not detected. This is most likely due to the fact that a very small quantity of dye was used to minimize the possible discoloration of water at a nearby well.

The positive results of the initial tracer tests at Comal and San Marcos springs proved the concept that groundwater flow in some portions of the aquifer are rapid and convergent and that tracer testing was feasible in the San Antonio Segment of the aquifer. To assist the Authority in carrying out a more extensive tracer testing program, the Authority recently awarded a contract to George Veni and Associates (GVA). GVA specializes in karst geology and hydrology and is composed of a very experienced staff of professionals and technicians.

The Authority has also assembled a collection of automatic water samplers, continuous recording water quality equipment, and a specialized analytical instrument for the analysis of dye. This machine, called a scanning spectrophotometer, can separate out more than 5 dyes from a single water sample, allowing future traces to use multiple simultaneous tests, saving time and labor costs.

Over the next two years, the Authority will be performing tests at Comal, San Marcos, and Hueco springs to help understand the complex flow paths in this region of the aquifer. The Authority is also scheduled to perform tracer testing in Uvalde County, Eastern Bexar County, North Medina County, and along the Edwards/Trinity Aquifer contact.

The tracer testing program will unravel the complicated plumbing of the aquifer. In addition, the data will be invaluable in helping design proper sampling and analytical protocols at Comal and San Marcos springs, assist in the design of spill response plans for the aquifer, and determine the interaction between the Trinity and Edwards Aquifers.



Authority Employees Celebrate 5 Years of Service

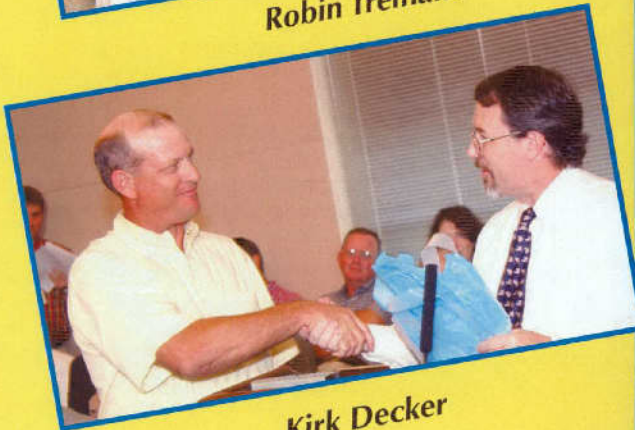
by Margaret Garcia, Program Manager
Public Affairs



Sandy Hagland



Robin Tremallo



Kirk Decker

At the August 2003 Board meeting, Sandy Hagland, Robin Tremallo, and Kirk Decker were recognized for 5 years of service as employees of the Authority.

Sandy Hagland joined the Authority on June 15, 1998. Sandy came to the Authority after working in the legal and engineering field for ten years and is a certified paralegal.

Sandy is currently the Executive Assistant to Margaret, Velma, and Geary. She is a member of the Executive Team and performs various duties including working closely with the board of directors and tracking legislative issues. She also works closely with Kemp Smith.

Robin Tremallo joined the Authority on July 9, 1998. She holds a Bachelors degree and a Masters degree in Geology from the University of Texas at San Antonio.

Robin currently holds the position of Environmental Coordinator in the Aquifer Science Team. As an Environmental Coordinator, she reviews and comments on Water Pollution Abatement Plans for development over the Edwards Aquifer Recharge Zone. Robin also participates in various interagency planning efforts regarding recharge zone protection. She has also been instrumental in the Authority's land acquisition projects and in the development of water quality rules.

Kirk Decker joined the Authority on August 3, 1998, after working at BMA for 19 years as a field manager. He holds a Bachelor's degree in Agricultural Economics from Texas A&M University.

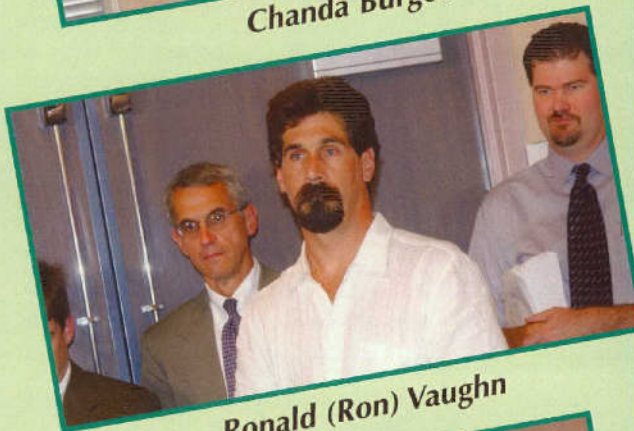
Kirk currently holds the position of field representative and is a member of the Investigations and Monitoring Team. As a field representative, Kirk conducts field investigations and is involved with data collection activities. He also performs water meter testing and has been an integral part of the water well metering program. Kirk was also part of the team that worked hard to gather information for the first groundwater withdrawal permits.

Authority Welcomes New Employees

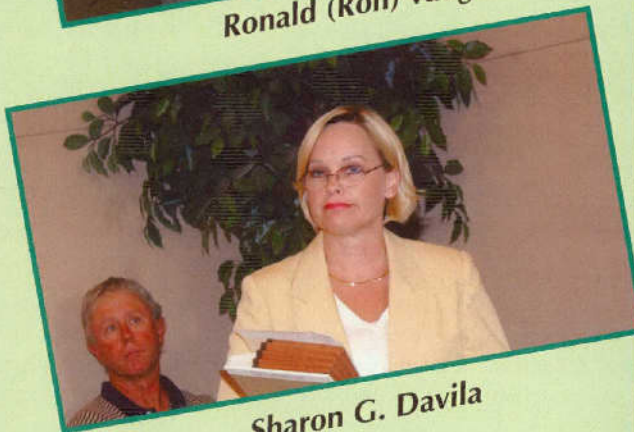
by Margaret Garcia, Program Manager
Public Affairs



Chanda Burgoon



Ronald (Ron) Vaughn



Sharon G. Davila

The Authority welcomes Earl Parker II, Chanda Burgoon, Ronald (Ron) Vaughn, and Sharon Davila.

Earl Parker II serves as Program Manager- Investigations and Monitoring. Earl attended UTSA and received a Bachelor of Science in Geology and a Masters of Science in Environmental Sciences. Earl comes to the Authority from Jacobs Engineering where he served as Project and Business Manager for the past five years. Prior to this position, he worked for Operational Technologies as a Staff Scientist and Project Manager and at the Edwards Underground Water District as a Water Resources Technician.

Chanda Burgoon joins the Investigations and Monitoring team as an Environmental Science Technician. Chanda attended Texas Lutheran University where she studied biology. Chanda comes to the Authority from Motorola where she worked as an operator assembling and testing microchips. Prior to this position, she worked for the Guadalupe-Blanco River Authority as a technician testing water and wastewater. She also conducted field sampling.

Ronald (Ron) Vaughn joins the Aquifer Science Team as Sr. Environmental Coordinator. Ron attended University of Wisconsin and received a Bachelor of Science in Geology. He also attended the University of Wisconsin and Wright State as a graduate student. Prior to the Authority, Ron worked for RMT as a Senior Hydrogeologist.

Sharon G. Davila is part of the Executive Team and is the Authority's Docket Clerk. Sharon holds a Bachelors degree from St. Mary's University and has over 20 years of experience in the legal field. Within these 20 years, Sharon worked as a Probation Officer for 8 years and worked for litigation attorneys as a legal assistant for 12 years.

Aquifer Management Fees

by Brock Curry, Program Manager – Administrative

Staff issued 235 invoices for non-agricultural aquifer management fees in December 2002. These invoices, totaling \$9,371,461, were due in full by March 1 unless the permittee elected to pay monthly. As of August 31, the Authority has collected a total of \$6,614,001 in non-agricultural aquifer management fees, or 71% of the amount budgeted for 2003. Seven (7) users with fees totaling \$12,491 did not meet the March 1 payment deadline and are considered delinquent. Staff will be working with the board to proceed with enforcement action against those users.

In December, the Authority also issued the 2002 annual use report form for all aquifer users to report their groundwater use. For agricultural users, this report form also serves as an invoice for aquifer management fees – both of which were due by January 31. As of August 31, the Authority has collected \$197,741 from agricultural users based on 99,097 acre-feet of groundwater used in 2002. The amount of revenue collected represents 99% of the 2003 budgeted revenue for agricultural aquifer management fees. Staff will also begin enforcement action against those agricultural users that have not reported their 2002 use or paid the fees due on that use.

2004 Proposed Operating Budget

by Brock Curry, Program Manager – Administrative

The Authority staff will present the General Manager's 2004 Proposed Operating Budget to the board on September 9, 2003. The Finance/Administrative Committee of the board will hold several meetings to consider approval of this budget prior to possible final approval by the board on November 18, 2003. In addition, the Authority will conduct three meetings designed to obtain public comment on the proposed budget. These meetings will be held in San Antonio, Uvalde, and New Braunfels on October 15, October 20, and October 22, respectively.

2003 Precipitation Enhancement Program

by Rick Illgner, Program Manager – Groundwater Management Strategies

The Authority's Precipitation Enhancement Program was kicked off May 1, 2003. For the second year, the Authority has contracted with the South Texas Weather Modification Association (STWMA) and the Southwest Texas Rain Enhancement Association. The STWMA is contracted to fly cloud seeding missions over Bexar, Bandera, and Medina Counties; the Southwest Texas Rain Enhancement Association flies cloud seeding missions over Uvalde County. The precipitation enhancement program benefits the constituents of these counties and surrounding counties by increasing rainfall within the Edwards Aquifer Recharge region thereby reducing demand on the Aquifer. The cost for the 2003 program is \$124,776. To date, the Authority has expended \$95,125, or 76%, of the 2003 contracted amount.

In June a total of 73 flares were burned over four counties within the Edwards Aquifer Authority study area, representing 5,760g of Agl. Eight days of cloud seeding occurred in July (3, 4, 5, 10, 15, 19, 26 and 28). Seventy-three was the total number of flares burned in the study area. The flares per county are as follows: Uvalde (32), Bexar (15), Bandera (6), and Medina (20).

In July a total of (104) flares were burned over four counties within the Edwards Aquifer Authority study area, representing 6,840g of Agl, and 450g of Agl using an Airbourn Liquid Fuel Generator for 3 hours. Seven days of cloud seeding occurred in July (1, 2, 3, 4, 8, 16, 23, 24, and 27). One hundred four flares were burned in the study area in July. The total numbers of flares burned in the study area are as follows: Uvalde (26), Bexar (27), Bandera (12), and Medina (39).

August 2003 Board Meeting

by Margaret Garcia, Program Manager – Public Affairs

At their regular monthly meeting held Tuesday, August 11, 2003, the Edwards Aquifer Authority Board of Directors approved final rules for the EDWARDS AQUIFER AUTHORITY RULES regarding well construction and aquifer storage and recovery. The Authority's well construction rules address procedures for constructing, operating, maintaining, and plugging wells that penetrate the Edwards Aquifer. The new well construction rules are more stringent than those currently mandated by the state. The Authority's aquifer, storage, and recovery rules generally address permits to add more water to the aquifer, and how that water can be recaptured for later use.



Authority directors also received a technical briefing from HDR Engineering on the San Antonio Water System's (SAWS) pumping from the Edwards Aquifer. Mr. Ken Choffel, PE. HDR Engineering presented a report regarding an analysis recently performed by HDR Engineering for SAWS. In the report, Mr. Choffel detailed the objectives of the analysis and provided directors with general information on the data collected.

In addition, Authority directors also received a report on "Assessing Droughts in South Central Texas" from Drs. Steve A. Tomka and Raymond P. Mauldin, University of Texas at San Antonio, Center for Archaeological Research. The Authority contracted with Drs. Tomka and Maudlin to evaluate the drought of record and compare it in severity and occurrence to other droughts in San Antonio using dendrochronology. Dendrochronology is the study of tree rings and is based on the fact that trees add one layer of wood each year; a layer is thinner during dry years and thicker during wet years.

The age of the tree can be determined by counting from the outer ring back to the center. By correlating the thickness of the layers with known climatic conditions, the relationship of the climate to tree ring thickness can be determined. The study found that the drought of record occurred only once in the 279 years prior to 1979.

In other business, the board approved a joint funding agreement between the Authority and the American Water Works Association Research Foundation. The overall project objective is to develop software for a groundwater model designed to simulate groundwater flow in a karst aquifer. This project will be conducted as part of the board-approved Edwards Aquifer Optimization Technical Studies (OTS) in support of the Edwards Aquifer Optimization Program (EAOP). Development of software to model karst aquifers will further the process of modeling the Edwards Aquifer using the best available methods.

In addition, Authority directors approved an agreed final order for five initial regular permits 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. This agreed final order represents 1,685 acre-feet of Edwards Aquifer groundwater. In addition, Authority directors adopted an omnibus final order approving one initial regular permit representing one acre-foot of Edwards Aquifer groundwater withdrawal rights. The board also denied two applications representing a total of two acre-feet of Edwards Aquifer groundwater.

Well Construction Program

by Rick Illgner, Program Manager – Groundwater Management Strategies

In July, Authority staff issued 37 well construction permits. This total includes 17 Edwards Aquifer domestic well permits, 2 Edwards Aquifer livestock well permits, 1 Edwards Aquifer industrial well permit, 1 Edwards Aquifer irrigation well permit, and 2 Edwards Aquifer well plugging permits. In addition, 14 permits were issued to drill through the Edwards Aquifer.

If you would like more information on the Authority's Well Construction Program, contact Jeff Robinson, Regulatory Programs Coordinator.



Groundwater Withdrawal Transfers

by Rick Illgner, Program Manager – Groundwater Management Strategies

In August, Authority staff processed 20 partial sales and lease transfers representing 12,023.000 acre-feet in Edwards Aquifer groundwater withdrawal rights. Since the inception of the transfer program, Authority staff has processed 844 partial sales and lease transfers representing 159,093.760 acre-feet of Edwards Aquifer groundwater withdrawal rights. Of the 864 partial sale and lease transfers completed, only 616 are currently active representing 116,564.998 acre-feet. Active transfers include 98 sub-leased transfers representing 20,330.432 acre-feet. In addition, Authority staff processed 6 change of ownership or miscellaneous transfers representing 2,520.000 acre-feet.

Transfer Description	Number of Transfers	Acre-Feet
August (8/1/03 - 8/31/03) Transfers (Partial Sales, Leases, Sub-leases, and Re-sales)	20	12,023.000
August (8/1/03 - 8/31/03) 100% Change of Ownership (Sale of Place of Use) or Miscellaneous Transfers	6	2,520.000
Total Number of Transfers (Partial Sales, Leases, and Sub-leases, and Re-sales) Completed as of 8/31/03	864	170,899.860
Total Number of Active Transfers (Partial Sales, Leases, Sub-leases, and Re-sales) as of 8/31/03	616	116,564.998
Total Number of Active Sub-leased Transfers as of 8/31/03	98	20,330.432
Total Number of Active Re-sale Transfers as of 8/31/03	90	2,943.392

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

Initial Regular Permits

by Steven D. Walthour, Program Development

In August, the staff recommended five Agreed Final Orders (AFOs) for applicants who had previously filed protests on their proposed permits to the Authority's board of directors. The Authority's board of directors also adopted an omnibus final order approving one initial regular permit representing one acre-foot of Edwards Aquifer groundwater withdrawal rights per annum. The Authority's board of directors accepted Authority staff's recommendation to adopt a final order denying applications for two initial regular permits. In addition, Authority's directors granted 1687.484 acre-feet of Edwards Aquifer groundwater withdrawal rights and denied 2.104 acre-feet of Edwards Aquifer groundwater withdrawal rights.

To date, the Authority has issued final decisions on 884 Initial Regular Permit applications representing approximately 81% of all applications filed with the Authority. The Authority has issued 702 permits and denied 183 permit applications. The Authority has issued a total of 500,671 acre-feet of Edwards Aquifer permitted groundwater withdrawal rights that will be available January 1, 2004.

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

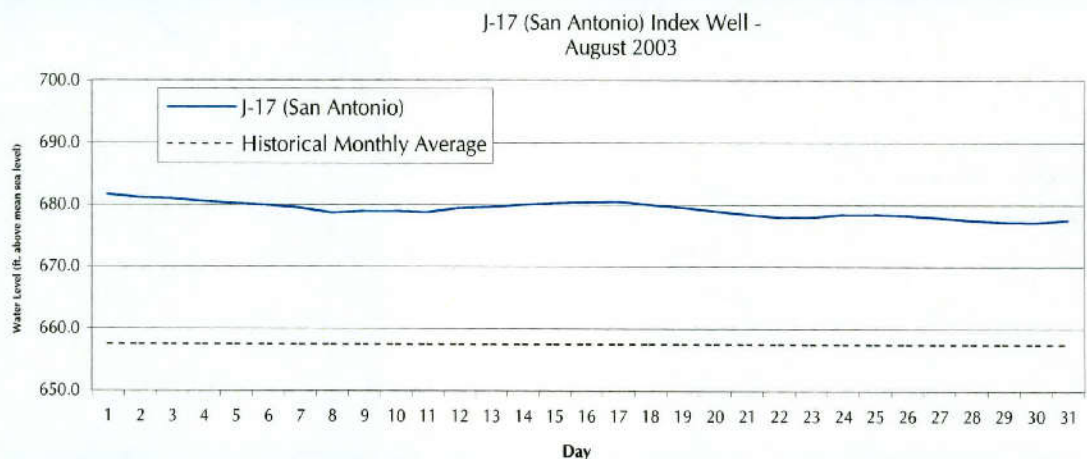
MONTHLY WATER LEVEL & SPRINGFLOW REPORT

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

J-17 (San Antonio) Index Well – August 2003

The J-17 index well level average dropped 3.0 feet from 682.2' above mean sea level (msl) in July to 679.2' msl in August. The August 2003 high of 681.6' is 6.1 feet below the August 2002 high of 687.7' msl.

The J-17 historical monthly average for August is 657.5' msl.



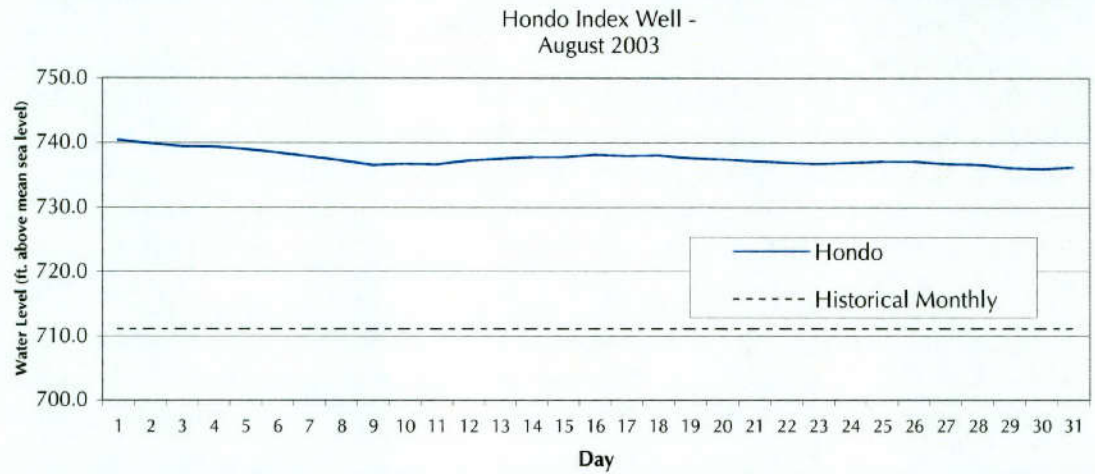
J-17 (San Antonio) Index Well – Combined Historic Record for Two Wells: 1932-2002

	August 2003	August 2002	Historical Record	
Maximum	681.6	687.7	June 14, 1992	703.3
Minimum	677.1	679.9	August 17, 1956	612.5
Average	679.2	683.7	August (1932-2002)	657.5

Hondo Index Well – August 2003

The Hondo index well level average dropped 2.7 feet from 740.2' msl in July to 737.5' msl in August. The August 2003 high of 740.4' msl is 1.3 feet below the August 2002 high of 741.7' msl.

The Hondo Well historical monthly average for August is 711.0' msl.



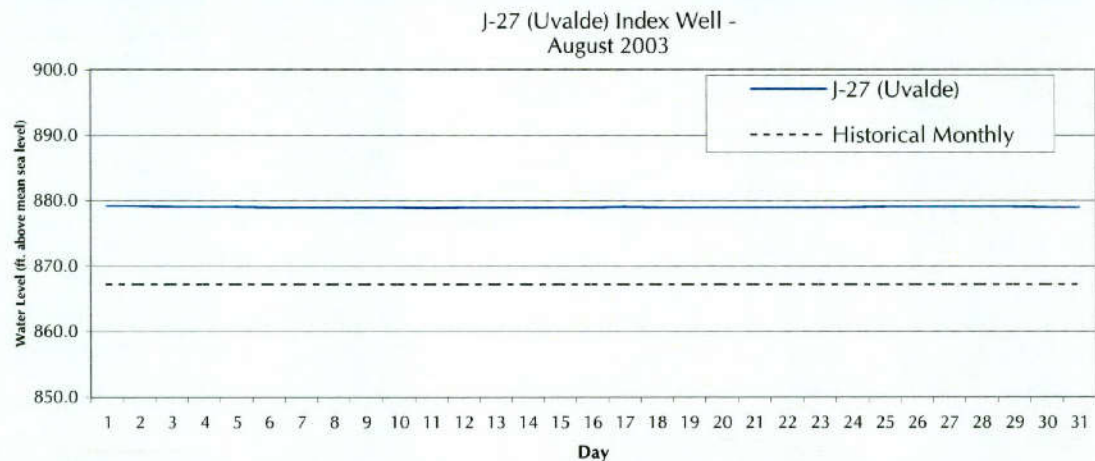
Hondo Index Well – Historic Record: 1986-2002

	August 2003	August 2002	Historical Record	
Maximum	740.4	741.7	June 14, 1992	779.0
Minimum	735.9	734.0	June 29, 1990	651.0
Average	737.5	737.7	August (1986-2002)	711.0

J-27 (Uvalde) Index Well – August 2003

The J-27 index well level average rose 0.3 feet from 878.7' msl in July to 879.0' msl in August. The August 2003 high of 879.1' msl is 0.2 feet above the August 2002 high of 878.9' msl.

The Uvalde Well historical monthly average for August is 867.2' msl.



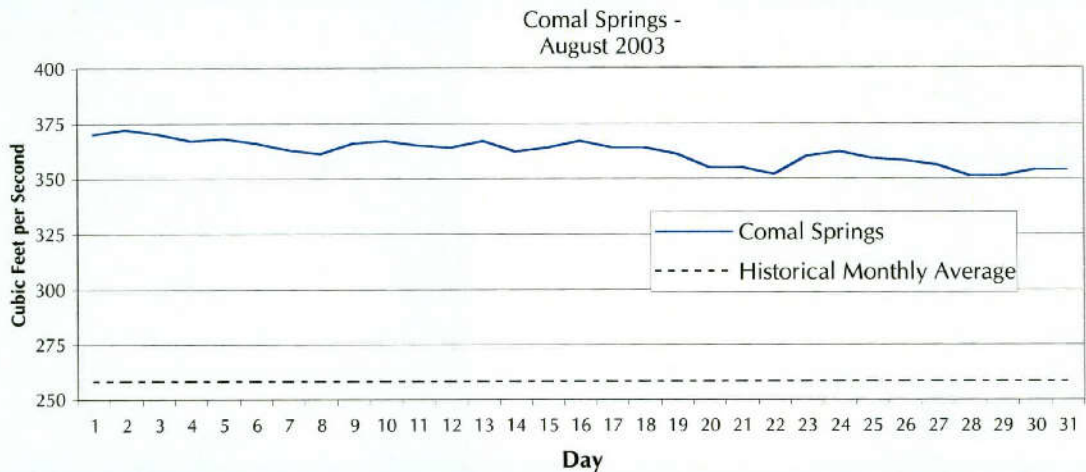
J-27 (Uvalde) Index Well – Historic Record: 1940-2002

	August 2003	August 2002	Historical Record	
Maximum	879.1	878.9	June 15, 1987	889.0
Minimum	878.9	877.9	April 13, 1957	811.0
Average	879.0	878.5	August (1940-2002)	867.2

Comal Springs – August 2003

Comal springflow reached a maximum flow of 372 cubic feet per second (cfs) on August 2nd. The minimum flow occurred on August 28th at 351 cfs.

The August 2003 average was 362 cfs, which was 103.9 cfs above the historical monthly average of 258.1 cfs.



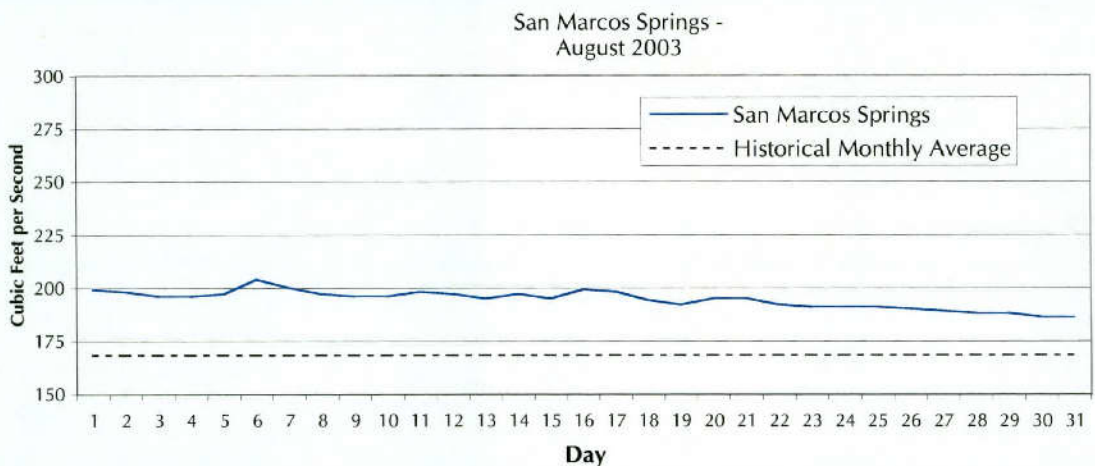
Comal Springs Historic Record: 1927-2002

	August 2003	August 2002	Historical Record	
Maximum	372	393	October 14, 1973	534.0
Minimum	351	366	August 8, 1956	0.0
Average	362	381	August (1927-2002)	258.1

San Marcos Springs – August 2003

San Marcos springflow reached a maximum flow of 204 cfs on August 6th. The minimum flow occurred on August 30th at 186 cfs.

The August 2003 average was 194 cfs, which was 25.8 cfs above the historical monthly average of 168.2 cfs.



San Marcos Springs Historic Record: 1956-2002

	August 2003	August 2002	Historical Record	
Maximum	204	321	March 12, 1992	451.0
Minimum	186	298	August 15, 1956	46.0
Average	194	310	August (1956-2002)	168.2



**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 SEPTEMBER & OCTOBER

SEPTEMBER

Tues. 9/9	12 PM 3 PM	Finance/Administrative Committee Board Meeting, Edwards Aquifer Authority Conference Center, 1615 N. St. Mary's Street, San Antonio, Texas
Tues. 9/23	10 AM 11 AM 1 PM	Habitat Conservation Plan Work Group Aquifer Management Planning Committee Permits Committee
Wed. 9/24	11 AM 1:30 PM	Finance/Administrative Committee R&T Committee

OCTOBER

Mon. 10/6	9:30 AM 12 PM	Committee Liaison Meeting Executive Committee
Tues. 10/14	3 PM	Board Meeting, Edwards Aquifer Authority Conference Center, 1615 N. St. Mary's Street, San Antonio, Texas
Tues. 10/28	10 AM 11 AM 1 PM	Habitat Conservation Plan Work Group Aquifer Management Planning Committee Permits Committee
Wed. 10/29	11 AM 1:30 PM	Finance/Administrative Committee R&T 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.