THEWATER SOURCE

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An Update on the Edwards District & Issues Affecting Management of the Edwards Aquifer

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There have been numerous events in the last five years that have been directed at how and who should manage the Edwards Aquifer. The whole situation is extremely complicated to understand, even for those in the business. Hopefully, this article will sort out some of the confusion in a chronological manner and bring the reader up to date.

The Catalyst

In May of 1991, the Sierra Club filed a lawsuit in federal court against the U.S. Fish and Wildlife Service (USFWS). The suit claimed the USFWS was negligent in carrying out its mandated duty under the Endangered Species Act to protect the habitat of species which live in Comal and San Marcos Springs.

In January of 1993, U.S. District Judge Lucius Bunton ruled in favor of the Sierra Club and ordered that:

- The springflow levels for protection under the Endangered Species Act must be a number greater than zero (in other words, springflow must be maintained, even during a drought of record).
- The Texas Water Commission (now the Texas Natural Resource Conservation Commission) submit a management plan for the Edwards Aquifer by March 1993 that would provide adequate protection for the endangered species at Comal and San Marcos Springs.
- The USFWS develop threshold springflow levels for "take" and "jeopardy" for all federally protected species at Comal and San Marcos Springs. ["Take" and "jeopardy" are levels of injury to the species. "Take" is minimal injury, but potentially some individual members could be lost; "jeopardy" is the threatened extinction of the entire species.]
- Additional action would be taken if the Texas Legislature did not provide a regional management solution for the Edwards Aquifer.

The New Deal - Part I

On May 30, 1993, the Texas Legislature responded to Judge Bunton by adopting Senate Bill (SB) 1477 which created the Edwards Aquifer Authority (Authority). SB 1477 presented many new approaches to the long-standing conflict over managing the Edwards Aquifer. The Authority was to replace the Edwards Underground Water District and its 12-member elected board. The new agency's affairs would be governed by a nine-member appointed board. There were also new boundaries, including all or parts of eight counties that rely on the Edwards Aquifer. Revenue would come from water use fees instead of ad valorem taxes which is how the Edwards District is financed. The Authority would also have new powers, including a permitting system that specified the amount of water which could be used. SB 1477 also created the Uvalde Underground Water Conservation District.

(continued)

Time for Spring Cleaning Get Rid of Your Household Hazardous Waste

Stacy Shipley, Project Coordinator City of San Antonio Household Hazardous Waste Program

In just two months, San Antonio and the rest of the nation will celebrate Earth Day — a day set aside to remember our responsibility to protect the environment. By all accounts, the event keeps growing stronger with each passing year. The good news locally is that as a community, we are beginning to embrace the universal appeal to reduce, reuse and recycle. The bad news is that we're still throwing the really dangerous stuff down the drain.

Each of us has lurking under our sinks or in our garages a somewhat silent polluter known as household hazardous waste. It's silent because we don't think of the products in our homes as being hazardous. The truth is, when it comes to some of the

everyday products that make our lives so much easier, we don't realize that many of them contain the same properties as industrial waste and can be potentially dangerous if not disposed of properly.

So just what is household hazardous waste? By definition, it is quantities of waste which originate at the residential level that are either toxic, corrosive, or can explode when mixed with other substances. This can be things like oil, paint, any kind of solvent or cleanser, pesticides, herbicides — even seemingly harmless things like nail polish and remover!

What can you do? **Reduce** the amount of these chemicals you buy. Use up all of the contents of a hazardous waste container, or **recycle** it by giving it to a neighbor or charitable organization who may be able to use it. Most importantly,

we need to **learn to use alternatives**. For example, a good surface cleaner is a mixture of vinegar with salt and water. Or dissolve baking soda in water for a general cleaner. There are many more alternative products to address common household tasks: drain cleaners, tub and tile cleansers, air fresheners, roach killers, flea killers, ant killers and more.

If you would like additional information on simple actions you can take, call the Edwards Underground Water District's Office of Public Information at (210) 222-2204, or if you are a resident of San Antonio, call the city's Solid Waste Hotline at 207-8654. In addition, the City has four free household hazardous waste collections each year. The next one is scheduled for Saturday, February 24th at the United Methodist Church at 825 E. Basse from 8:00 am until 1:00 pm.



Rainfall for the Edwards Aquifer region was four to five inches below normal last year. In January 1996, only a trace of precipitation was recorded. With hotter temperatures just around the corner, it is important to remember to water properly. Generally, landscapes need only an inch of water a week. You can measure how long this takes by simply placing a can next to your sprinkler and seeing how long it takes the water to rise one inch. So Be Water Tight. Use your water wisely. Remember ... the next drought begins after the last rainfall.

The Beat Goes On... (continued)

The Department of Justice (DOJ) must approve any changes that affect elections, and therefore was queried for approval since the bill replaced an elected body with an appointed one. In November 1993, DOJ denied the request for clearance stating, "While ... the state sought to assure some minority representation on the Bexar County appointed delegation, under federal law, this is not an adequate substitute for existing electoral rights," therefore, dissolving the Edwards District and replacing it with the Authority was legally unenforceable.

The District Continued to Move Forward

The Edwards District continued on in earnest, conducting business between 1993 and 1995 while legal quarrels related to the Endangered Species Act lawsuit and control over the Edwards Aquifer were pending. New research was conducted on the freshwater/saline water interface (also known as the "bad water line"), the amount of water in storage, and how the water moves through and recharges the aquifer, all of which added to our understanding of the Edwards Aquifer. The District's long-held tradition of data collection was enhanced with a state-of-the-art real time data collection network.

In the area of regional management of the Edwards Aquifer, the District worked on two very important items. In June 1994, the board of directors voted unanimously to adopt a strategic plan which set policy for the next 10 years. Second, the Edwards Aquifer Interlocal Contract was signed in October of 1994 by the Medina County and Uvalde County Underground Water Conservation Districts and the Edwards District. This agreement represented a general framework for management of the Edwards Aquifer.

The New Deal - Part II

During the 1995 legislative session,

it appeared that the legislature only wanted to make minimal changes to SB 1477. Two bills were introduced to remedy the sticking points in SB 1477. The first, House Bill (HB) 3189. provided for a 15-member elected board instead of the nine-person appointed board found in the original bill. The second, HB 2890, moved forward dates that had expired with the delayed implementation of SB 1477. HB 3189 passed and was signed by the governor. However, HB 2890 was defeated in the final days of the session. The Department of Justice gave its approval of HB 3189 on August 8, 1995.

A New Challenge

Six days before the scheduled implementation date of HB 3189, a lawsuit was filed by the Medina County Underground Water Conservation District. The suit contended that SB 1477 was unconstitutional because it would create a taking of private property rights without compensation, violated due process and equal protection, its passage was improperly noticed to the public, and it was retroactively applied. A judge in state district court granted a temporary restraining order to prevent members of the Authority from taking office. After a hearing, the judge allowed members of the Authority to be sworn in and take office, but forbid them from conducting any business other than hiring attorneys to represent them in this matter. He also stated that the current law remained in effect thus the Edwards District was not dissolved and was to continue its business.

A three week trial was held, and on October 27, 1995, State District Judge Mickey Pennington ruled that SB 1477 and HB 3189 were unconstitutional on all points argued by the plaintiffs and only the section creating the Uvalde County Underground Water Conservation District could be implemented.

What's Next

The decision has been appealed directly to the Texas Supreme Court because of the constitutional issues raised in the litigation. The Supreme Court will hear the case on March 20th, but it is difficult to know when the court will render its decision.

Since 1904, it has been the basic philosophy of Texas groundwater law that the landowner could use the groundwater beneath his or her land. SB 1477 would have changed that concept. The Supreme Court's opinion is necessary, as determining the constitutionality of SB 1477 is the most important case involving groundwater in years. Consequently, the Supreme Court must provide some direction, much as it did in the school finance litigation. Currently, Judge Bunton has been prevented by a federal appeals court from taking further action surrounding the aquifer until the legal challenges have gone through all the state court channels.

And the Beat Goes On ...

At this time, the Edwards District is continuing to concentrate on basics such as registering wells, collecting data, investigating recharge projects, implementing the District's Demand Management Plan, conducting research which aids in our understanding of the aquifer, and protecting the sensitive recharge zone. The District is currently meeting with representatives of the Medina and Uvalde Districts as part of the Edwards Aquifer Interlocal Contract to find ways to fund the purchase of water meters and implement a dryyear option, whereby irrigators would be provided financial incentives to cease pumping at times of low springflow conditions. While some wait for the Supreme Court to render its decision, the District continues to pursue its mission "... to ensure a sustainable supply of high quality water with a spirit of regional cooperation," just as it has since 1959.

News Briefs

☐ The Edwards Underground Water District is conducting a study to monitor the water gains and/or losses in the Guadalupe River as it crosses the Edwards Aquifer Recharge Zone. The District wants to determine whether or not the river provides recharge to the Edwards Aquifer, and is working cooperatively with the Texas Water Development Board, Guadalupe-Blanco River Authority and the United States Geologic Survey.

A gain/loss survey of a river or stream is a method where several measurements of the stream channel are taken to determine if the stream is losing water to underlying geologic formations, or is gaining water from springs in the river channel.

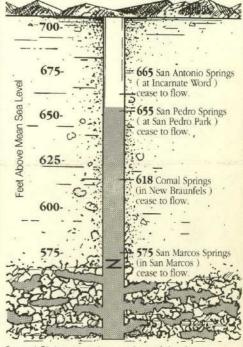
Most streams flowing from the Edwards Plateau, commonly known as the Texas hill country, lose all or most of their water through infiltration into the porous and fractured limestone in the stream channels as they cross the recharge zone. These

stream losses account for a substantial amount of recharge to the aquifer. Scientists have long thought that the portion of the Guadalupe River which crosses the recharge zone does not lose much water to the Edwards Aquifer. For this reason, total recharge reported for the Edwards Aquifer does not take into account the Guadalupe River. If significant losses from the river are discovered entering the Edwards Aquifer, then the method for calculating recharge will be adjusted.

Components of the study will include: a review of historical streamflow and groundwater data; a groundwater well inventory; a field reconnaissance for gain/loss measurement sites along the reach of the Guadalupe River below Canyon Lake to the portion above the Comal River at New Braunfels; and the actual gain/loss surveys done in conjunction with technical staff from the four agencies. Results from the survey are expected this fall.

The Water Level

This reading reflects the daily high artesian water elevation at the Bexar County Edwards Aquifer Index Well. The bottom of the graph represents the depth of the well which is 143 feet below mean sea level.



Current Status: On February 9th, 1996 the elevation was recorded at 657.2. Average for February is 668.6. Flow from Comal Springs was recorded at 254 cfs on February 8th, 1996.



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