New Braunfels: Forum focuses on growing water concerns

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When the Texas Legislature convenes in January, it will consider legislation that will shape this region's future when it revisits the act that created the Edwards Aquifer Authority.

Authorized in 1993's Senate Bill 1477 and founded in 1996, the Edwards Aquifer Authority will face a conundrum: The Legislature told it to establish permits based on the historic use of the aquifer, but set an annual pumping cap of 450,000 acre-feet per year, which will be reduced to 400,000 acre-feet on Jan. 1, 2008.

When the authority went through the process of establishing permits based on the historic use of farmers, municipalities and industrial water users, it ended up with permits totaling 549,000 acre-feet of water.

What to do about the cap, its fast-approaching legislated lowering and the 99,000 acre-foot — or 149,000 acre-foot — difference per year will be a thorny issue when the 80th Texas Legislature convenes on Jan. 9, 2007.

On Saturday, about 200 citizens and stakeholders attended "Water Symposium '06: The Edwards Aquifer & You" at Kay Harrison Auditorium. Officials from the Edwards Aquifer Authority, the Guadalupe-Blanco River Authority and New Braunfels Utilities discussed the history of water planning, the upcoming Legislative session, the aquifer authority's legislative agenda and proposals for what might come next in regional and state water planning.

The meeting was organized by Bill and Dolores Schumann. It was sponsored by a number of local clubs and organizations.

Edwards Aquifer Authority General Manager Robert Potts opened the meeting moderated by District 73 State Rep. Carter Casteel with an overview of the authority, its history and its legislative agenda — adopted in September by its board of trustees — which includes local representatives Doug Miller and Ramon Chapa Jr.

Potts spoke of the permits, the pumping cap and the fundamental conflict between them.

"The reality is both ranges are important, and we need some guidance from the legislature," Potts said.

What the EAA will propose in January is a series of solutions offered in legislation that passed the state senate in 2005, but died in the state house of representatives. It would allow for:

n The annual pumping cap to be increased from 450,000 to 549,000 acre-feet (rather than reduced to 400,000 acre-feet) with a "junior-senior" rights scenario that restricts permitted pumping to 340,000 acre-feet when all aguifer pools are at critical or drought levels;

n The costs of any reductions in permits to be shared evenly between downstream water rights holders on the Guadalupe River basin and EAA permit holders — a huge issue when the purchase of up to 149,000 acre-feet in water rights could cost an estimated \$200 million or more;

n The EAA to be granted the legal authority to issue bonds and build structures such as dams or other facilities to help recharge the aquifer.

The region's water solutions, Potts said, must be solved by a broad-based approach that considers all water resources — and not just the aquifer.

"We need a comprehensive, regional approach," Potts said. "If we only look at it in pieces, we're not going to solve this issue."

In New Braunfels, officials in the 1980s — when there were no limits on pumping from the Edwards Aquifer — realized the need to take a regional approach.

NBU, which now has existing water supplies to meet its projected needs through 2037, diversified its water usage in 1991 by building a surface water treatment plant that can process 8 million gallons of Guadalupe River water per day. NBU's Roger Biggers said the move placed New Braunfels in a unique and relatively comfortable situation.

"It was a big step for the utility board at that time," Biggers said.

Today, New Braunfels sits in pretty good shape as a result. On average, NBU uses about half of its permitted water supplies from the Edwards Aquifer or Guadalupe River. To meet additional needs in the future, Biggers said the utility would need to site an additional water treatment plant and to find additional sources of water.

Todd Vottele, the GBRA's executive director of natural resources, said the aquifer is nonetheless important to those with Guadalupe River surface pumping permits because its springs in New Braunfels and San Marcos provide a high percentage of river flows — 77 percent this past summer.

Of the river water that reaches Victoria, 14 percent comes from Canyon Lake and upriver, while 86 percent of that flow comes from the springs, he said.

Votteler said it was the GBRA's position that the aquifer authority has the legal ability to mandate reduced permits and that cutting permits would be preferable to any scenario that allows increased pumpage.

"That means everyone gets a haircut, and you reduce permits down to 400,000 acre-feet, said Votteler."

Another issue, Votteler said, is the decision by San Antonio Water System in 2005 to abandon the Lower Guadalupe Pipeline project which would have brought water back to San Antonio from the salt water barrier at the river's mouth — and SAWS's decision to base its water planning on the 1984 drought instead of the decadelong "drought of record" of about 50 years ago.

Tree-ring growth studies dating to the 1500s show that the 1946-56 drought was not at all uncommon. Worse droughts have occurred in Texas, and similar droughts can be expected on average every 80 years or so, Votteler said.

"If you don't use a 'drought of record' to plan, you're playing a risky game," Votteler said. "It's like planning for a Category 1 hurricane when you've had a Category 4."

And the 1950s drought, Votteler warned, might not even be an adequate benchmark, considering annual aquifer pumping has doubled since then, from 200,000 acre-feet per year to more than 400,000 acre-feet.

Potts said Votteler's projections are oversimplified because they don't take into consideration the size and nature of the aguifer or its ability to recharge.

"His statements treat the Edwards Aquifer like it's a big bathtub," Potts said. "It doesn't take into account any management or conservation efforts.

Pumpage in the '50s was not at all regulated and was heaviest in the eastern end of the aquifer. Today, it's in the western end.

Studies have shown that the Comal Springs might not have dried out in 1956 were it not for what was once the largest power plant west of the Mississippi River — the former LCRA plant adjacent to Landa Park in New Braunfels — was pumping water from a well near the spring head. That plant is closed today and being renovated into loft apartments.

Votteler disputed the charge that GBRA was oversimplifying the EAA's water issues.

"I understand how difficult it is for the EAA to manage the aquifer under the situation we're in without other substantial water supplies coming into the area," Votteler said. "I'm not sure how I would do it."

Votteler agreed that something needs to happen at the state level, but he said he doesn't believe legislation that would essentially raise the Edwards pumping cap is the answer.

A better way out, he said, might be to delay the 2008 cap reduction and bring all the players to the table with the Texas Water Development Board, the Texas Commission on Environmental Quality and the Texas Parks and Wildlife Department to come up with a plan that meets everyone's needs.

"The 2007 session will be the most important one for the Edwards Aquifer, Comal Springs and Guadalupe River since the 1993 legislature," Votteler said.

Biggers said he doesn't know what the answers are, but he agreed about the important role the 80th legislative session could play in water issues.

"We hope what comes out of the legislature is a realistic, reasonable solution that looks at all of the issues surrounding this and comes up with the best solution for the long term," Biggers said.