

Danger to aquifer is called unknown

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AUSTIN -- The Edwards Aquifer is one of the most vulnerable in the country to climate change, but today's tools are insufficient to plan for global warming's impact on local or state water supplies, a Texas water manager said Tuesday.

Hydrologist Robert Mace of the Texas Water Development Board said it is a "no-brainer" that climate change will impact Texas aquifers. But he said substantially more study needs to be done on the effect of global warming on recharge to the state's aquifers as well as an effort made to downscale global climate models to Texas before water planners can account for the impact in the state water plan.

"On a water resource planning level, we would like to have more certainty," Mace said.

Global warming's impact on state water supplies is the topic of a three-day conference in Austin that began Monday. The conference, organized by the Texas State University River Systems Institute, has brought together experts from all over the state and country to discuss how Texas can best respond to climate change.

A panel at the conference Tuesday recommended forming a statewide consortium to spearhead the effort.

There are already clues in scientific literature on how climate change may treat Texas. Nearly all agree that it will get significantly warmer -- at least 5 or 6 degrees by the end of the century.

The latest report by the Intergovernmental Panel on Climate Change, an international group that compiles and analyzes worldwide research on climate change, also predicts that recharge to aquifers in Texas could fall as much as 10 percent by the end of the century, with most in the arid western portion of the state, Mace said. But he also pointed out that the international panel admitted there has been very little study on climate change's impact on groundwater, which much of Texas depends on for its water.

The state water development board produces a plan every five years to outline the state's needs and water supplies for the next 50 years. The latest plan, in 2007, contained only a short discussion of climate change and concluded that the impact was not significant enough to plan for at this time. Several noted water experts throughout the state took exception to this approach.

The issue could have a significant impact on San Antonians. The Edwards Aquifer, the source of most of the city's drinking water, has been named as one of the four in the country most vulnerable to climate change. And studies have shown that even a small decrease in rain and increase in temperature could have a major impact on the aquifer.

Tuesday's discussion highlighted much of the debate still swirling in the scientific community around climate change, particularly when it comes to the effect on water.

University of California at Santa Barbara hydrologist Hugo Loaiciga has done much of the research that has tagged the Edwards as one of the most vulnerable. Yet, much to the chagrin of some at the convention, he discounted as "voodoo science" models used by the IPCC and others that have predicted a decrease in rainfall in Texas.

"I'm not a contrarian, but I want you to challenge yourself a little more on this subject," he said.

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