

Water planners urged to base needs on centuries, not decades, of drought data

By **Farzad Mashhood**

AMERICAN-STATESMAN STAFF

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The region's worst-case drought scenario might not be dire enough, researchers warn in a report released today.

Over the past 500 years, Central Texas has seen droughts far worse than the 1950s drought of record, according to a report commissioned by the Guadalupe-Blanco River Authority and published Wednesday in the December issue of the Texas Water Journal. Researchers warn that makers of water policy should broaden their planning to factor in the possibility of droughts far worse than the spell that set the bar more than a half-century ago.

"The drought of record was no aberration," researcher and authority Executive Manager Todd Votteler said. He and the study's other authors analyzed data from samples taken from Central Texas trees and other historical factors. "The tree-ring record showed that there were droughts that were more severe and lasted longer. And there's a real policy question that comes up of to what extent do we need to prepare for those droughts, if at all?"

The Texas Water Development Board's policy says to plan for droughts as bad as the 1950s drought, citing a lack of reliable records for historic droughts before 1895. Most water planners don't deny that worse droughts have occurred in the past but say concrete rainfall data from a worse drought would be needed. The authors of today's report say that's a short-sighted view.

"To get a better idea of how variable climate can be, you need a lot more data," said Malcolm Cleaveland, the study's lead author and a tree-ring expert at the University of Arkansas, Fayetteville.

There's no way to predict whether the current drought will surpass the Texas drought of record — the worst since statewide rainfall started being recorded in 1895 and since Austin began keeping records in the 1850s, Votteler said. The report says planners should prepare for the record to be broken at some point.

The Water Development Board said Dec. 15 that the state should spend \$53 billion to satisfy water needs in the next half-century and to guard against future droughts. But the 295-page water plan doesn't require regional and local planners — who control rivers, aquifers, reservoirs and water rates — to raise the money and make the improvements.

Votteler said that as the population rapidly increased in recent decades, the water supply surplus created by the so-called reservoir boom of the 1960s and 1970s evaporated.

Since the 1980s, Texas has struggled to secure federal money to develop water sources, state officials have said.

Meanwhile, climatologists have said the state is in the midst of a 30-year dry weather pattern that began around the turn of the millennium, after a 30-year wet period. An even broader look at regional climatology shows that Central Texas has seen several 10- to 15-year droughts between 1500 and 2008, the report said.