

# Texas must address groundwater future, says expert

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Credit: 123rf.com

Long-term water security is essential for the future of Texas, and the state acutely needs a common law system that can balance world-scale agricultural activity, industrial development and urban growth while also protecting private property rights, according to [new research](#) from Rice University's Baker Institute for Public Policy and Texas State University's The Meadows Center for Water and the Environment.

The analysis, authored by Gabriel Collins, the Baker Botts Fellow in Energy and Environmental Regulatory Affairs at the Baker Institute, aims to provide a foundation for such discussions.

"Water is an underappreciated and irreplaceable component of the Texas growth model," Collins wrote. "At the same time, significant droughts in the state are a question of 'when,' not 'if.' Water policy can certainly wait until a more sustained supply crunch emerges and then respond reactively. But it is far better to address a known risk in a proactive manner—one that builds in the time and space needed to craft solutions and create the legal, market and physical infrastructure needed to implement them over decades."

Texas groundwater common law is fundamentally based on principles developed in ancient Rome more than a millennium ago, Collins said. It has also been nearly 120 years since the state adopted the "rule of capture," which, as described by the Texas Supreme Court, "essentially allows, with some limited exceptions, a landowner to pump as much groundwater as the landowner chooses, without liability to neighbors who claim that the pumping has depleted their wells."

Since that landmark decision, Texas has grown into one of the largest economies and groundwater users in the world. Data from the United Nations Food and Agricultural Organization indicate that based on the 1997-2017 median extraction volume, Texas would be the world's 11th-largest groundwater pumper—extracting about 10 million acre-feet of water per year, or slightly less than what Turkey extracts and a bit more than Argentina. For perspective, 1 million acre-feet of water would cover the entire city of Houston roughly knee-deep.

Collins' report draws upon dozens of judicial and legislative decisions taken in 10 other American states that, at various points in the past 150 years, have transitioned from the rule of capture to another groundwater common law doctrine.

Arkansas, Arizona, California, Florida, Kansas, Michigan, Nebraska, New Hampshire, Ohio and Oklahoma offer a blend of unique and cross-

jurisdictional insights that can provide an informed basis for policymakers in Texas, should they choose to update the state's groundwater common law, Collins said. In this group of 10 states, Ohio and Michigan offer especially relevant examples, because each of these states adopted groundwater law doctrines that emphasize an equitable balance between competing uses while still respecting water owners' property rights, he said.

Two of the most serious groundwater management challenges Texas faces are the rule of capture's tendency to create a "tragedy of the commons" and the fact that the rule of capture is interspersed with a largely patchwork groundwater conservation district system that, with a few exceptions, diverges from hydrologic realities, Collins said.

"Dealing effectively with the first issue by updating Texas' groundwater common law could help alleviate broad pressures on groundwater resources in key areas and, in doing so, potentially mitigates the most distortionary aspects of the current groundwater conservation district system," he wrote. "Groundwater common law reform thus reshapes the environment in a way that addresses acute issues posed by unrestrained extraction in areas not covered by [groundwater](#) conservation districts, especially those where a restrictive district borders an ungoverned space whose denizens can overpump at the expense of property owners within district boundaries."

**More information:** What Can Texas Learn From 10 Other States' Groundwater Law Updates? [www.bakerinstitute.org/media/filer\\_public/2016/06/06/20160606\\_bakerinstitute\\_groundwater\\_laws-060321.pdf](http://www.bakerinstitute.org/media/filer_public/2016/06/06/20160606_bakerinstitute_groundwater_laws-060321.pdf)

Provided by Rice University

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