

# State Water Plan Seeks to Protect Memphis Sands Aquifer - Daily Memphian

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By Sam Stockard

The Memphis Sands Aquifer isn't in danger of drying up, but it remains in federal litigation, and Tennessee leaders say a long-term look at water needs statewide will help prepare for growth and updated systems. State officials say the aquifer produces the purest drinking water in the nation — 159 million gallons daily for public water supplies.

Yet, with Tennessee's population of 6.5 million people expected to double in 50 years, the state's growth, along with concerns about the use of sources such as the aquifer, droughts, aging water systems and battles over water rights forced the state to put together a plan to look at water needs over the next two decades.

"There are trillions upon trillions of gallons of water in the Memphis aquifer, so it has plenty of water," says Shari Meghreblian, commissioner of the Department of Environment and Conservation. "But as you might imagine, water knows no political boundaries necessarily, so that aquifer goes under multiple states, Mississippi, Arkansas. If you think about businesses and people sticking straws down in that, over time we're trying to get an understanding whether people are taking water out quicker than it's recharging."

Made up of gravel, sand, silt and clay sediments, the Memphis aquifer is protected by an overlying clay barrier. But breaches into the clay are "providing avenues" for contamination to enter the aquifer, according to "TNH2O: Tennessee's Roadmap to Securing the Future of Our Water Resources," the study unveiled this week.

In addition, the aquifer is in the midst of a tug-of-war with Mississippi, which sued Memphis, Memphis Light, Gas and Water Division and the state of Tennessee over the water supply. Mississippi brought a lawsuit more than a decade ago arguing Memphis is pumping water out of the aquifer that is partially in Mississippi and should be going to its water utilities instead. Initially, it wanted payment of more than \$1 billion, but reduced that amount by nearly half.



Jeremy Bernal plays in the spray at Shelby Farms' splash park last summer. The water feature has been a popular aspect of the Heart of the Park project. (Jim Weber/Daily Memphian file)

The U.S. Supreme Court refused to hear the case after the 5th Circuit Court of Appeals dismissed it. Yet Mississippi continues to pursue the matter, and it is still tied up in litigation.

Following a press conference announcing the state's H2O initiative, Meghreblian said there is no contamination of the aquifer, though the study says the clay lining is being breached.

"Of course, folks will want to make sure they maintain that pristine quality," she said.

Meghreblian also confirmed the Attorney General's Office continues dealing with the lawsuit brought by Mississippi.

"That's another reason it's so important to get ahead of this, because folks are used to hearing about issues all out West, and you don't really think of issues in the Southeast with water availability. But we're starting to see them, so that's why a plan like this is so important, so we're ahead of it," she said.

Areas relying on aquifers for water supply are susceptible to drought, and heavy groundwater use for agricultural production in Arkansas could affect the Memphis aquifer because it has no "direct recharge" other than precipitation across West Tennessee, according to the study.

Tennessee is becoming a wetter state, however, and even though no comprehensive groundwater-monitoring system exists, levels are rising in "key" counties because of water-efficient appliances, industrial-water reuse and general awareness about reducing water use, the study says.

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**Tennessee Gov. Bill Haslam**

The report recommends the creation of a curriculum to help people understand the importance of groundwater, avoiding contamination and using conservation practices.

In addition, it calls for setting up incentives for "green" infrastructure and conservation techniques; establishing monitoring networks; developing a funding source for scientific assessments in West Tennessee; creating a voluntary program for reporting irrigation withdrawal; and requiring groundwater impact reports with land-use planning.

Meghreblian, Gov. Bill Haslam and Deputy Gov. Jim Henry released the study this week, announcing the Tennessee Department of Environment and Conservation is taking public comments on the plan, which is designed to ensure an abundance of water through 2040.

"Tennessee is blessed with great sources of water today, but we should never take that for granted," Haslam said. "As our state grows, we must maintain our capacity to meet our water needs. That takes a plan, and I am grateful for the amount of work that has gone into this issue."

The plan is available for viewing and commenting at [tn.gov/environment/tnh2o](http://tn.gov/environment/tnh2o) through Feb. 28, 2019.