

**What Would Elvis Say? *Mississippi v. Memphis*
and the
Curious Case of the Memphis Sand Aquifer**

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Abstract

Conflict between USA political jurisdictions over transboundary aquifers are rarer than conflict over surface water bodies. The recent case involving the Memphis Sand aquifer in the south-central USA, a seeming anomaly, could indicate that more such cases are on the horizon. This presentation will discuss the case and its implications for transboundary groundwater management and water conflict within the USA.

The Memphis Sand aquifer underlies about 26,000 km² (10,000 mi²) in the south-central USA, primarily in the states of Arkansas, Mississippi, Tennessee, and Kentucky. The aquifer is renowned for its good quality water, making it an ideal source of drinking water. The aquifer provides water to the residents of Memphis, Tennessee, and many of the residents of Shelby County, Tennessee – a total of over 1.1 million people. The city-owned water utility, Memphis Light, Gas, and Water (MLGW), pumps anywhere from 600,000 to 760,000 m³/day (160 to 200 million gallons/day) from the aquifer, which is up to 200 meters (650 feet) thick beneath Memphis.

The state of Mississippi, which lies just south of Memphis, claimed that MLGW's pumping from the Memphis Sand was capturing water from beneath the state of Mississippi – up to 30% of the total pumping – and that it was thus entitled to damages. Memphis claimed its groundwater pumping was 'reasonable' and did not reduce the availability of water in Mississippi. In 2005, the state sued the City of Memphis and MLGW for over USD \$1 billion in U.S. Federal District Court. For Memphis, losing the case would not only mean potentially paying a large penalty but also dictating that MLGW would have to tap the Mississippi River for some of its water, necessitating construction of an expensive treatment plant.

The district court dismissed the lawsuit; Mississippi appealed the case but the original decision was upheld by the U.S. Fifth Circuit Court of Appeals. The appellate court also required that the State of Tennessee be designated a defendant in the case as it was a "necessary and indispensable party" to the lawsuit. It further ruled that since the lawsuit was now between two states, it must be decided before the U.S. Supreme Court, which declined to hear the case. Mississippi's claim was thus rejected, although the Supreme Court left the door open for another lawsuit if Mississippi thinks it can prove that it has been harmed.

In summary, *Mississippi v. Memphis* will have a profound influence on water management and the potential for conflict in the US. The case has elucidated a number of issues that will no doubt appear again in the future, some of which are: 1) groundwater ownership versus use; 2) the resolution of transboundary groundwater disputes that do not involve state versus state; 3) the value of groundwater and possible groundwater marketing; 4) the public trust doctrine as applied to groundwater; and 5) the need for compacts designed specifically for groundwater.