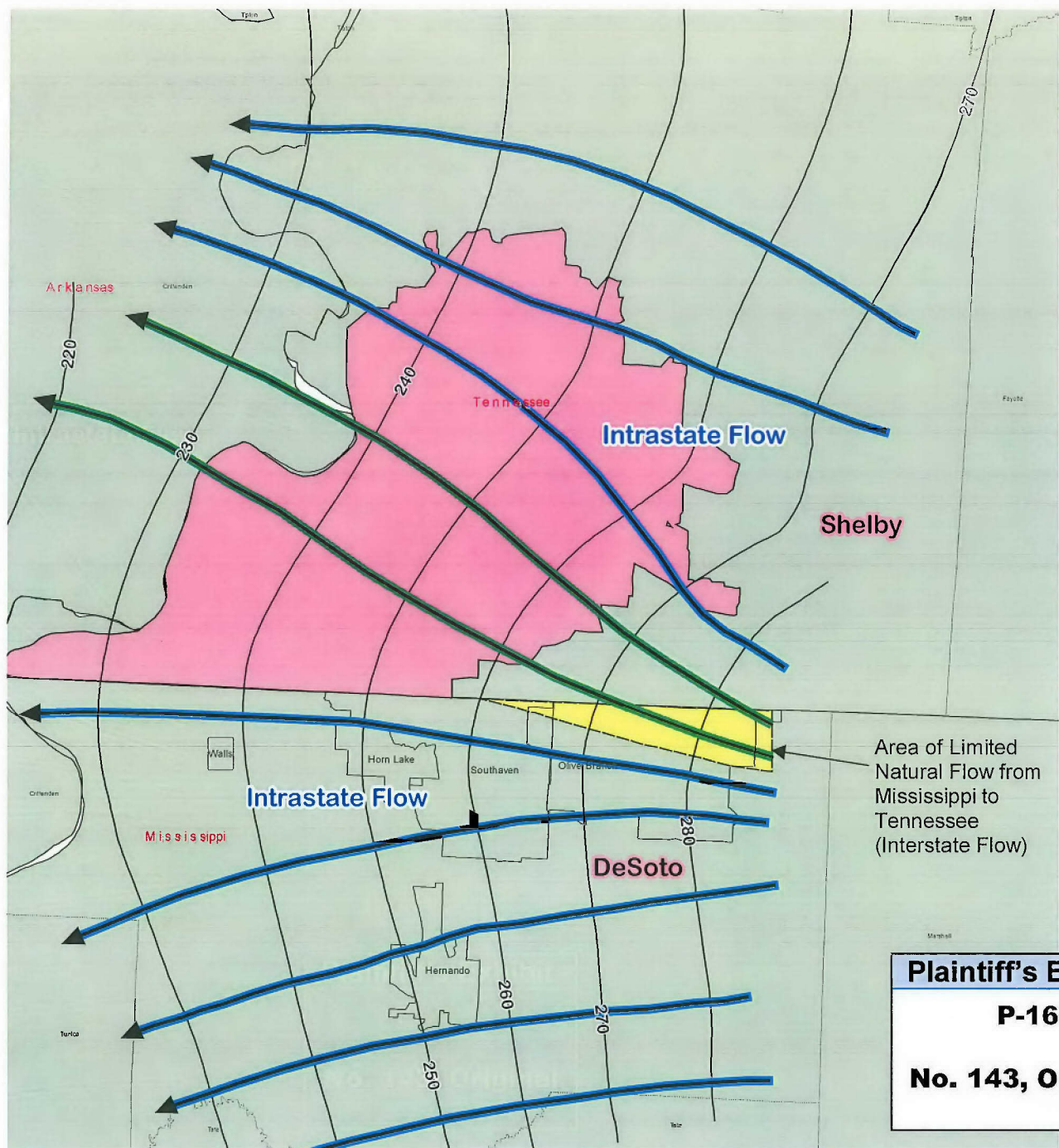


**DR. DAVID LANGSETH:**

**SUMMARY OF OPINION**

The Aquifer at issue, including the groundwater in it, is an interstate resource:

1. The Aquifer extends beneath portions of Mississippi, Tennessee, and six other states.
2. Before pumping began, groundwater in the Aquifer naturally flowed from Mississippi into Tennessee (and across other state lines).
3. Pumping groundwater from the Aquifer in both Tennessee and Mississippi impacts the groundwater in the other state.
4. In the Tennessee-Mississippi border region, groundwater in the Aquifer is hydrologically connected to interstate surface water.



**Plaintiff's Exhibit**

**P-168**

**No. 143, Original**

Source: Brahana & Broshears, WRI 89-4131  
Modified by LBG



0 3 6  
Miles

- ← Flow Lines Showing Pre-Development Groundwater Flow Direction
- Interstate Flow
- Intrastate Flow
- Potentiometric Surface Contour Lines

**UPDATE REPORT ON DIVERSION AND WITHDRAWAL  
OF GROUNDWATER FROM NORTHERN  
MISSISSIPPI INTO THE STATE OF TENNESSEE**

1886 ESTIMATED POTENTIOMETRIC SURFACE  
MAP FOR PREDEVELOPMENT CONDITIONS



**LEGGETTE, BRASHEARS  
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☐ Acad  
☒ GIS  
☐ Corel

DRAWN BY: TDH

CHECKED BY: DAW

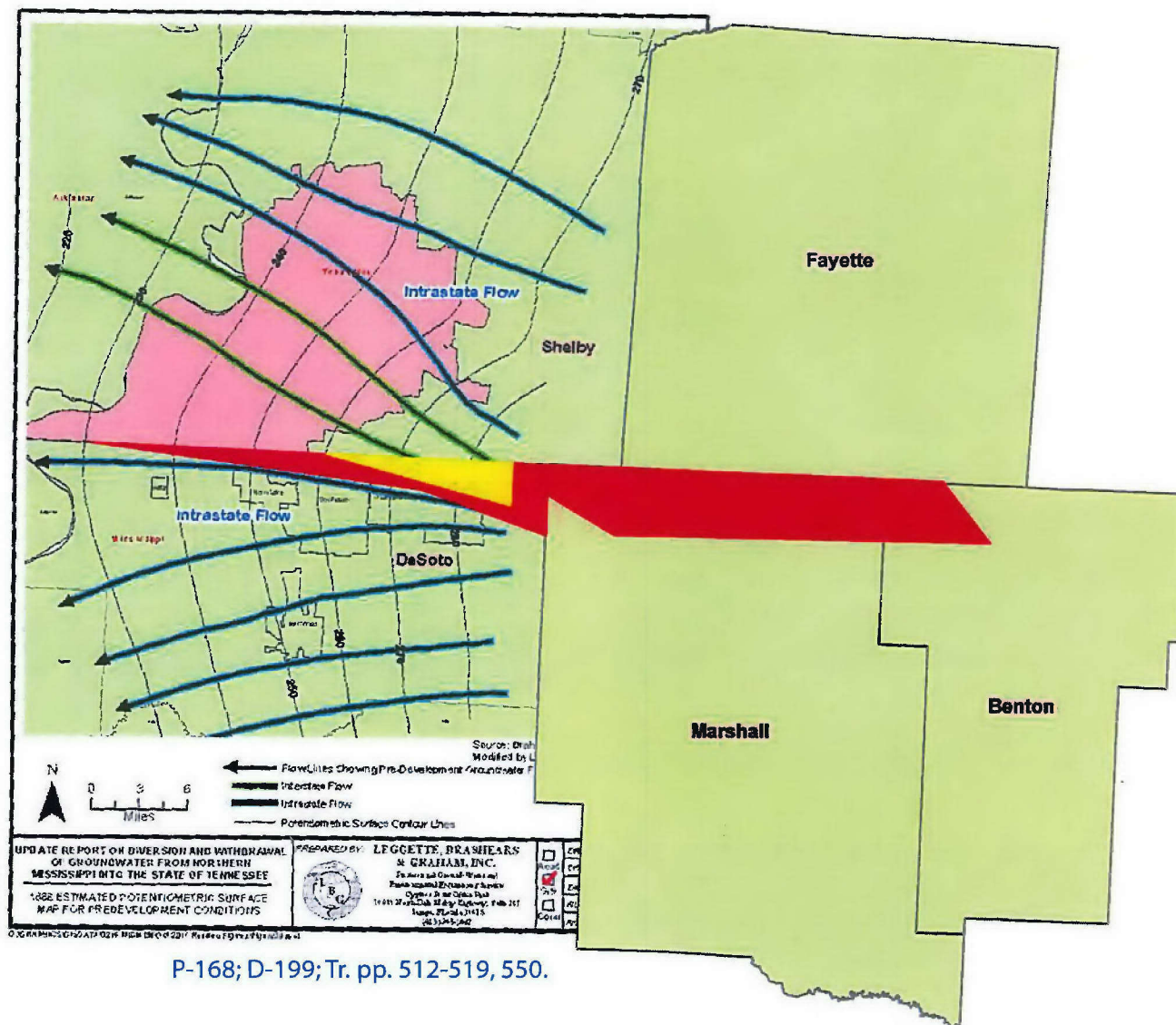
DATE: Sept. 2018

FILE NAME: Figure09.MXD

FIGURE NO.: 9

Q:\GRAPHICS\GISDATA\0215.MISMEM\Oct 2017 Revised Figures\Figure09.mxd





P-168; D-199; Tr. pp. 512-519, 550.

## MISSISSIPPI'S ASSERTIONS THAT THE AQUIFER IS INTERSTATE:

- "This is an **interstate groundwater action** ... ." <sup>1</sup>
- "Mississippi's claims against Memphis arise in the context of a dispute involving an **interstate body of water**." <sup>2</sup>
- "Mississippi claims that Memphis and MLGW have wrongfully diverted and misappropriated ground water owned by the State, and taken from within its territorial boundaries from **the Memphis Sand Aquifer, an interstate underground body of water**." <sup>3</sup>
- "Federal common law applies to all of Mississippi's claims by virtue of the fact that the **Sparta Aquifer is an interstate waterway**." <sup>4</sup>
- "Of course, in the instant matter, it is universally recognized that in the context of disputes involving an **interstate body of water, such as the Sparta Aquifer**, federal common law applies." <sup>5</sup>

<sup>1</sup> *Hood, et al. v. The City of Memphis, Tennessee, et al.*, Civil Action 2:05-cv-00032-GHD (N.D. Miss.) ("*Hood*"), Complaint (Doc. 2), ¶ 11 (Feb. 1, 2005); *Hood*, First Amended Complaint (Doc. 112), ¶ 8 (Oct. 5, 2006).

<sup>2</sup> *Hood*, Reply Memorandum of Authorities in Support of Plaintiff's Response to Defendants' Motion (I) to Dismiss for Lack of Ripeness / Lack of Standing, (II) to Dismiss for Failure to Join Indispensable Party, (III) to Dismiss the Tort Claims for Lack of Subject Matter Jurisdiction / Improper Venue (Doc. 32), p. 10 & nn. 9-11 (Apr. 22, 2005).

<sup>3</sup> *Hood, et al. v. The City of Memphis, Tennessee, et al.*, Case: 08-60152 (5th Cir.), Brief for Appellant, p. 1 (May 13, 2008).

<sup>4</sup> *Hood*, Plaintiff's Response to Defendants' (I) Motion to Dismiss for Lack of Ripeness / Lack of Standing, (II) Motion to Dismiss for Failure to Join Indispensable Party, (III) Motion to Dismiss the Tort Claims for Lack of Subject Matter Jurisdiction / Improper Venue (Doc. 29), p. 4 (Apr. 11, 2005).

<sup>5</sup> *Id.* at p. 27, n.27.

## MISS. CODE ANN. § 51-3-41

The [Mississippi Department of Environmental Quality] shall have authority to negotiate and recommend to the Legislature compacts and agreements concerning **this state's share of ground water** and waters flowing in watercourses **where a portion of those waters are contained within the territorial limits of a neighboring state.**



