



# Treading Political Water

*Political partnerships backed by sound science helped muster support for new legislation to protect Tennessee's water supply.*

BY DAVID LEWIS FELDMAN

Over the past two decades, conflicts over water supply have erupted throughout the Southeast. Three trends have fueled these disputes. First, users of the same watercourses and aquifers compete for the same resources. Second, land-use patterns are changing, population is growing, and regional climate is affecting supply. Third, it is becoming increasingly difficult to balance economic growth against demands for a high-quality water supply.<sup>1</sup>

Tennessee is a microcosm of these trends and faces several threats. Of vital importance to agriculture, industry, transportation, energy production, recreation, and the environment, Tennessee's water is a finite and increasingly threat-

ened resource. Recent drought, population shifts, urban development and sprawl, and growing competition among users has raised concerns over the continued availability of a stable, dependable water supply. In addition, the state's water has become the focus of interstate conflicts.

While water supply is generally plentiful statewide, regional variations in demand are significant. Eastern Tennessee, for example, uses 2.5 times as much water as middle Tennessee and 24 times as much as western Tennessee, largely because of electric power generation. Moreover, while surface-water use predominates statewide, groundwater constitutes 89 percent of the water used for nonpower purposes in western Tennessee, and half the state's popu-

lation in its western-most quarter relies on groundwater for drinking water. In addition, highly consumptive uses, such as agricultural irrigation are increasing.<sup>2</sup>

Periodic drought is also a threat. From 1985 through 1988, when precipitation statewide was 75 percent of normal and streamflow half of normal, serious declines in water quality occurred leading to emergency measures to allocate and conserve, including local bans on nonessential uses.<sup>3</sup> Despite these problems, a survey conducted by the Energy, Environment and Resources Center at the University of Tennessee in 1999 suggests that users are resistant to rationing or withdrawal permits. Respondents favored better planning and contingency plans to manage water supplies during periods of drought.<sup>4</sup>

Interstate disputes are also increasing in frequency and intractability. Georgia, for example, is in the throes of a water war with Alabama over how to share water from the Alabama-Coosa-Tallapoosa basin and with Alabama and Florida over the Apalachicola-Chattahoochee-Flint basin (See "Thirst for Growth" in this issue of FORUM). Two compacts, ratified by Congress in 1997 and scheduled to take effect once the three states agree on an allocation formula, would place verifiable limits on Georgia's ability to draw water from both basins. Atlanta might also have to look elsewhere for water sources to satisfy growing needs.

Among the possible options the city was said to have considered was a plan to purchase water from Chattanooga's municipal supplier, the Tennessee-American Water Company, and divert it via pipe-

line. This prompted concern in Tennessee that the state's water supply was vulnerable to outside demands, it exacerbated tensions between the city of Chattanooga and Tennessee-American—who were already feuding over water rates—and it led to concerns over how Georgia can rightfully draw water from the Tennessee River.<sup>5</sup>

Meanwhile, Memphis, one of the largest cities in the world to rely on groundwater for its supply, faces potential conflict with Mississippi. The city's water is provided by a publicly owned municipal utility—Memphis Light, Gas, and Water—whose wells tap into the Memphis Sand Aquifer, a reservoir underlying nearly 7,400 square miles (19,000 square kilometers) of western Tennessee and parts of northern Mississippi, southwestern Kentucky, and eastern Arkansas. While the utility is the largest user of the aquifer, DeSoto County, Mississippi, is growing rapidly and views the aquifer as a potential future supply source. It is possible that nearly one-third of Memphis's water supply from the aquifer is withdrawn from beneath DeSoto County. This has led to calls for better understanding of the aquifer and pursuit of a more regional approach to its management.<sup>6</sup>

### **Tennessee Acts**

Growing awareness of threats to the state's water supply led to legislative action by the state of Tennessee. In May 2000, Tennessee's General Assembly passed, and the governor signed, a historic law requiring the state's public water providers, whose rights are secured by eminent domain, to acquire a permit for surface or groundwater withdrawals diverted outside their

basin of origin that “have a significant potential to adversely affect the flow of a Tennessee surface water body.”<sup>7</sup> The Inter-Basin Water Transfer Act provides authority to protect streams subject to low flow, bolsters rights of riparian users, regulates water quantities diverted and returned, and mandates consideration of potential alternatives to interbasin diversion.

Public providers must also register annual withdrawals, and the state has powers to protect deficit-ridden areas from diversion. Furthermore, the law divides Tennessee into 10 catchments—natural water basins defined by the drainage of major rivers and streams on a land-surface area—for planning purposes. Designation of these catchments and other aspects of the law were objects of lengthy negotiation.

Tennessee's new act represents a change in its policy agenda in response to perceived threats and new evidence of the vulnerability of the state's water supply. The sources of this policy change, the genesis of the new law, and the role of stakeholder and legislative negotiations in its passage can provide important lessons for policymakers in other regions.

### **Genesis and Evolution**

Six states bordering Tennessee—Alabama, Georgia, Kentucky, Mississippi, North Carolina, and Virginia—have already adopted measures to protect water supply through a combination of approaches, including registering withdrawal of surface and groundwater, managing drought by requiring minimum stream flows, permitting large withdrawals, and regulating interbasin diversions.

In early 1999, Tennessee's Department of Environment and Conservation asked the University of Tennessee's Energy, Environment and Resources Center to assess present and foreseeable water supply problems, examine case studies of potential conflict, and explore possible legal remedies similar to those adopted by other states. The report recommended taking into account regional variations in statewide water use, fostering greater cooperation among communities in planning their water supplies, and strengthening existing water rights through instituting permits for interbasin transfers. Almost simultaneously, talk of increasing diversions from Tennessee to northern Georgia as well as a proposal to tap into the Cumberland River to provide water supply for communities in Kentucky gave added impetus to demands for new legislation, which the Energy, Environment and Resources Center helped draft.

Drafting and securing passage of the Inter-Basin Water Transfer Act faced five major hurdles. First, except for drinking water, water supply was largely unregulated in Tennessee. Just one state law regulates in-stream volume, but its powers were limited to preventing physical or chemical stream alterations that threaten aquatic habitat.<sup>8</sup> Second, many key concepts in the draft bill had to be clearly defined to placate affected interests, for example, the terms *basins*, *public water providers*, and *significant harm*.<sup>9</sup> Third, some groups initially opposed any new regulation affecting utilities that already transfer water out of a water basin and those that envision economic gain in new out-of-basin transfers. Fourth, there was little time to

educate legislators or to negotiate with those who might be affected by the legislations. Like many state legislatures, Tennessee's meets only part of the year. A bill had to be introduced early in the session, mid-February, to ensure passage by session's end in June. Finally, a law regulating water supply must treat in-state and out-of-state uses consistently or federal courts might rule that it violates the U.S. Constitution's commerce clause. Thus, a means had to be found to regulate interbasin diversion without discriminating against out-of-state users. This was done by requiring permits for all transfers out of a basin within Tennessee regardless of whether the diversion's source originates in or outside the state.

Three strategies helped surmount these challenges: increasing the bill's transparency in negotiating with key interest groups, placating legislators' concerns, and making sure influential news media were familiar with the issue.

Key sponsors in the legislature and some lobbyists representing powerful interest groups that would be affected by the bill acknowledged that the bill could bolster the rights of existing users through rule-making rather than litigation. They also recognized that it would create a level playing field for future interbasin transfers and that it would strengthen the state's authority over water supply. Nevertheless, they insisted that key concepts be made more transparent within the bill's text before they would support it. Moreover, they did not want to wait for this clarification to occur in the rule-making phase that follows a bill's passage but precedes its implementation.

Key demands included grandfathering existing transfers and

designating the actual catchments for purposes of permitting. Tennessee's Department of Environment and Conservation's solution was to divide the state into 10 basins and allow key interests, such as public utilities that already provide water outside their own basin, to offer slight adjustments to their boundaries in accordance with established water use patterns. Prior to approving grandfather transfers, the U.S. Geological Survey assured Tennessee's Department of Environment and Conservation that existing transfers posed no serious problems.

Finally, environmental groups suggested that permits be renewable every five years, and those seeking new interbasin transfers must consider alternatives. These compromises alleviated the concerns of most vocal interests. Until the very end, however, lobbyists for one water utility interested in promoting out-of-state water sales sought to weaken the bill's language.

### **Navigating Political Waters**

Another strategy to gain support for the bill was to enlist bipartisan support. Key leaders from both parties cosponsored the bill in the House of Representatives and Senate. Two of these represented the Chattanooga area, which could be directly affected by proposed water transfers from the Tennessee River to Atlanta. Bipartisan support made passage more likely, especially since legislative sponsors held senior rank. There were other hurdles, however. While Democrats generally viewed the bill as good policy, they preferred stronger legislation that would protect particular regions, such as the Cumberland Plateau, as well as the

state as a whole. Some of the bill's amendments were concessions to these concerns. One amendment requires registration of all public withdrawals to provide a benchmark against which water-transfer impacts can be assessed, and Tennessee's Department of Environment and Conservation can forbid diversion from over-stressed areas of the state.

For their part, most Republicans were pleased that business interests did not oppose the bill and that the governor, a Republican, favored it. Both parties were assured, meanwhile, that permitting costs and economic burdens would be nominal. The task of gathering together supporting information for permits would be the responsibility of utilities, the costs passed along to consumers would be small, and costs to the state to process each permit would range from \$10,000 to \$15,000.

Finally, the University of Tennessee's Energy, Environment and Resources Center study proved useful in helping convince legislators of the value of, and need for, a new law. Two of the study's findings were especially cogent: first, that more vigorous enforcement of existing state law would not afford protection against potentially harmful diversions and, second, that neighboring states already had some means of regulating interbasin transfers.

Yet political maneuvering alone might not have assured passage of a bill that covers complex legal and environmental ground. It was also necessary to educate the legislators and the public they serve. Nashville and Chattanooga newspapers, as well as one statewide journal—the *Tennessee Farm Bureau News*—discussed possible threats that

made the bill's passage beneficial, and these and other media endorsed the bill's passage. Administration officials cultivated close connections with key reporters across the state and offered access to detailed information on water supply issues and story angles. Moreover, the administration saw to it that these stories and editorials were circulated among legislators. Though knowledge about the issue was initially low among the public and legislators, media coverage appears to have heightened interest in it. For example, during one-on-one meetings and in committee debate, legislators referred to editorials or news articles they had read. In the end, the bill prevailed unanimously: 29-0 in the Senate and 96-0 in the House.

#### **Timing...and Hard Work**

Sound science and policy analysis provided by the Energy, Environment and Resources Center report and other sources such as the U.S. Geological Survey were useful but insufficient to ensure the bill's passage. The law passed thanks to a combination of favorable circumstances and savvy politicking. Three circumstances kept legislators' attention focused on water supply issues: media coverage of the tri-state water wars, the potential for Atlanta buying Tennessee River water, and the region's recent drought.

Most important, supporters took advantage of this situation by demonstrating that a potentially serious problem existed and that other states had already taken action. They also established the

need for the law by showing why existing regulation was not fully protective. Supporters persuaded key interests of the importance of the bill by clarifying legislative intent, thus making the bill more transparent. Key amendments that strengthened the bill, and assurances that implementation costs would be small, helped garner bipartisan legislative support. Finally, the issue was packaged in a way that made it likely that citizens would embrace the law. Media coverage framed the issue by making the adverse impacts of unregulated interbasin transfers understandable.

Those interested in protecting water supply in their own region can take home one key lesson from Tennessee's experience: state legislators are most likely to take action when a proposed bill responds to a genuine problem for which current legal remedy is inadequate, and which is crafted to be acceptable to key interests.<sup>10</sup> ■

*David L. Feldman is an senior research specialist in the Energy, Environment and Resources Center and an adjunct professor of political science at the University of Tennessee, Knoxville.*

#### **NOTES**

1. T. Arrandale, "The Eastern Water Wars," *Governing* (August 1999), pp. 30-34; and J. Schaake et al., "Climate Impacts—Major Findings and Recommendations, Section G: Water Resources," Summary Report of the Workshop on Climate Variability and Water Resource Management in the Southeastern U.S., Vanderbilt University, June 25-27, sponsored by

the USGS, NASA, and NOAA (August 1997).

2. S.S. Hutson, *Water Use in Tennessee, 1995* (Nashville, TN: U.S. Geological Survey and Tennessee Department of Environment and Conservation, 1998).

3. A.B. Hoos, "Tennessee Stream Water Quality: National Water Summary, 1990-1991," Water Supply Paper 2400 (Nashville, TN: U.S. Geological Survey, 1992).

4. David L. Feldman and Jill Elmendorf, *Water Supply Challenges Facing Tennessee: Case Study Analyses and the Need for Long-term Planning*, prepared for the Environmental Policy Office, Tennessee Department of Environment and Conservation (Knoxville, TN: Energy Environment and Resources Center, University of Tennessee, June 2000).

5. Atlanta Regional Water Supply Plan Update, adopted December 3, 1997, Atlanta Regional Commission, unpublished report; K. Gilbert, "City Drops Water War, Proposal Vote Today," *Chattanooga Times and Free Press* (October 26, 1999), p. A-1.

6. T. Charlier, "Memphis Taps into DeSoto County Well Levels," *Commercial Appeal* (Memphis, TN, May 23), p. A1-9; W. Parks and J.K. Carmichael, *Geology and Ground-Water Resources of the Memphis Sand in W. Tennessee, Water Resources Invest. Rep. 88-4182* (Memphis, TN: U.S. Geological Survey).

7. Inter-Basin Water Transfer Act (2000).

8. Tenn. Code Ann. § 69-3-108(b)(4), 1997.

9. A basin is the area of land drained by a major river or stream. *Public water providers* are entities that acquire the rights to provide water to municipalities or other communities through eminent domain or condemnation. *Significant harm* consists of losses to current users or the environment.

10. This paper is adapted from a presentation at the 2000 meeting of the American Water Resources Association. Thanks to Dodd Galbreath and Alan Leiserson of the Tennessee Department of Environment and Conservation for clarifying the legislative process.