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AN INTRODUCTION TO WATER RIGHTS IN THE TWENTY-FIRST CENTURY: THE CHALLENGES MOVE EAST

Kenneth S. Gould^f

[W]e have reached the time in our state when we have to start thinking seriously in terms of a scarcity of water and of the competing interests for our water which must be fairly reconciled. No longer can we assume there is an abundance of water there for everyone's taking for any and all purposes.

—Arkansas Supreme Court Justice Darrell Hickman, dissenting
in *Nilsson v. Latimer*¹

Justice Hickman's warning from nearly twenty years ago is not specific to Arkansas. Although until recently water scarcity was an issue of concern primarily in the West, the severity of the water crisis in Arkansas and other eastern states has now risen to the level of national concern, as indicated in the recent front page New York Times article *Arkansas Rice Farmers Run Dry, and U.S. Remedy Sets Off Debate*.² Underground aquifers supplying water for agricultural, industrial, and municipal uses are being depleted at alarming rates.³ Drought conditions in recent years have exacerbated the problem, significantly increasing demand on the aquifers

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1. 281 Ark. 325, 331–32, 664 S.W.2d 447, 451 (1984) (Hickman, J., dissenting).

2. Douglas Jehl, *Arkansas Rice Farmers Run Dry, and U.S. Remedy Sets Off Debate*, N.Y. TIMES, Nov. 11, 2002, at A1. Twentieth century water resource developments in the eastern states are traced in a leading water resources law text:

Beginning in the middle of the 20th Century, as populations grew and adopted a more affluent life style, per capita and aggregate water usage soared and water demand came within hailing distance of water supply in several parts of the Eastern United States. Droughts began to have a greater potential to cause dislocations in the economy and the way people lived

Still more recently, the cycle of increased demand and drought intensified. Rapid population growth in some of the region's less water-rich areas, such as the middle and southern Atlantic coastal regions, stressed available water supplies. The economically beneficial development of those areas was put at risk by lack of secure water supplies. Severe droughts during the 1980's caused billions of dollars in crop losses in the East and led to increased irrigation water demand.

JOSEPH L. SAX, BARTON H. THOMPSON, JR., JOHN D. LESHY, & ROBERT H. ABRAMS, *LEGAL CONTROL OF WATER RESOURCES* 76 (3d ed. 2000).

3. For instance, scientists warn that at current rates of pumping, aquifers underlying the Grand Prairie area of eastern Arkansas will effectively be depleted by 2015. Depletion of the aquifers will also likely destroy farming as it is presently practiced in the Grand Prairie. See Chuck Plunkett, *Feud Grows on Grand Prairie*, ARK. DEMOCRAT-GAZETTE, Sept. 12, 1999, at A1.

without the compensating recharge that would come with normal precipitation.

There is an irony in the crisis. Considered on a statewide basis, many eastern states have sufficient water. However, because of practical and legal limitations, the "extra" water, in the form of lake and stream surface water, is not necessarily accessible to the areas of need.

Solutions to the water crisis have focused on diversion of surface water to areas of need and on water conservation measures. Arkansas's water crisis serves as a useful model for consideration of the water allocation issues facing many other eastern states. In Arkansas, the measure receiving the greatest attention in recent years is diversion of surface water. A plan developed over several years to divert White River water for use by non-riparian agricultural interests in eastern Arkansas at a projected cost of over three hundred million dollars, however, has itself been diverted, at least temporarily, in favor of conservation measures, including water storage in on-farm reservoirs.⁴ Almost certainly the conservation measures will not bring a long-term solution to Arkansas's water resource problems, and proposals for diversion of surface water will again require serious consideration.

To some extent the flexibility of eastern states to address water resource problems may be limited by established riparian rights water allocation doctrine. The central tenant of the riparian rights doctrine is that only riparians, that is, persons owning land abutting a waterway, may use water from the waterway.⁵ Common law riparian rights doctrine may limit diversion of surface water to property immediately adjacent to the water source and bar transmission of water to the non-riparian lands where the water is most needed. In some states, this restriction is compounded by "the unity of title rule"⁶ by which the amount of riparian land is constantly reduced

4. See Chuck Plunkett, *Meeting Leads to Truce in Water Feud*, ARK. DEMOCRAT-GAZETTE, Apr. 13, 2000, at A1; see also Kevin Freking, *State Water Projects Likely Safe*, ARK. DEMOCRAT-GAZETTE, May 4, 2002, at A1; Kim McGuire, *Bush Again Slight Irrigation Work: President's Budget Plan Contains No Funding for Grand Prairie*, ARK. DEMOCRAT-GAZETTE, Feb. 6, 2002, at B1.

5. Joseph W. Dellapenna, *Introduction to Riparian Rights*, in WATERS AND WATER RIGHTS § 6.01(a)(1) (Robert E. Beck ed., LEXIS Repl. 2001). The leading decision of the Arkansas Supreme Court discussing riparian rights is *Harris v. Brooks*, 225 Ark. 436, 283 S.W.2d 129 (1955).

6. The effect of the unity of title rule was well-illustrated by Justice McFaddin of the Arkansas Supreme Court:

[The] riparian right is an ever *contracting* right and never an *expanding* right; that is, the riparian right may grow smaller by conveyances, but can never grow larger. Suppose the Sovereign of the soil conveys a tract of 160 acres adjacent to the stream. The extent of the Sovereign's grant limits the riparian use of the water; and a tract lying immediately behind the 160-acre conveyed tract has *no* riparian rights because the grant has cut off such other land from the stream. If the grantee of the 160-acre tract should convey the 80 acres *immediately adjacent* to

through division of riparian tracts. However, changing water law doctrine may run afoul of vested riparian rights to use the water, the change possibly constituting a “taking” for which compensation must be paid.⁷ In the twenty-first century, challenges to established regimes of water allocation are indeed moving east.

Solving the water resource problem implicates other concerns. Diversion of surface water to relieve demands on the aquifers has potential adverse consequences for the environment, recreational activities, shipping and transportation, water quality, and esthetic concerns. By definition water diversion reduces that amount of water carried by a stream or stored in a reservoir. The result may negatively affect the habitat of fish and wildlife, the structure of stream banks, and the growth of useful vegetation along the water source. In turn, fish and wildlife populations may suffer, potentially leading to violations of legal protections such as the Endangered Species Act.⁸ Possible negative impact on shipping and transportation from a reduced volume of water in the water source is obvious. A diminished volume of water will likely reduce the water source’s ability to dilute pollutants, possibly resulting in the water source failing federal water quality standards and making the waterway less desirable for boating, fishing, swimming, and other recreational uses.⁹ Finally, diversion of water may degrade the esthetic appearance of the waterway.

Other options for solving the water scarcity crisis are experimental or unfamiliar to holders of eastern state water resources. In the experimental category is the artificial recharge of aquifers by collecting surface water in

the stream, the riparian rights contract to the conveyed tract; and the remaining 80-acre tract—not adjacent to the stream—loses all riparian rights. Should the riparian owner of the 80-acre tract on the stream later purchase the land behind the 80-acre tract such purchased land would not re-acquire riparian rights.

Harrell v. City of Conway, 224 Ark. 100, 108, 271 S.W.2d 924, 929 (1954).

7. Professor Barton H. Thompson, Jr. has addressed the possibility that change in water law doctrine by either legislation or judicial decision could constitute a taking of property for which compensation must be paid. Barton H. Thompson, Jr., *Takings and Water Rights*, in *WATER LAW: TRENDS, POLICIES, AND PRACTICE* 43–55 (Kathleen Marion Carr & James D. Crammond eds., 1995). In several cases the Arkansas Supreme Court has expressed the view that, at least under some circumstances, riparian rights may be constitutionally protected vested rights. In its most recent expression of that view, the court stated that “[i]t is recognized that in some instances vested rights may have accrued to riparian landowners and we could not of course constitutionally negate those rights.” *Harris*, 225 Ark. at 444, 283 S.W.2d at 134; *see also* *Thomas v. La Cotts*, 222 Ark. 171, 177, 257 S.W.2d 936, 940 (1953); *Meriwether Sand & Gravel Co. v. State*, 181 Ark. 216, 226, 26 S.W.2d 57, 61 (1930).

8. 16 U.S.C. §§ 1531–1534 (2000).

9. The principal federal water quality standards are found in section 303 of the Clean Water Act, 33 U.S.C. § 1313 (2000).

reservoirs for pumping directly into the aquifers.¹⁰ In addition to the experimental nature of this proposal, the source of the surface water to be pumped into the aquifers is unclear; the suitability of particular aquifers for artificial recharge is uncertain; and the proposal may be burdened with legal concerns similar to those that arise with diversion of surface water.

An attempt is being made in some western states to shift water to areas of greatest need by creating markets for water rights. In a water market, owners of rights to receive ground or surface water sell their rights to the highest bidder rather than make direct use of the water. In this way water is treated simply as a commodity and, according to advocates of water marketing, is applied to its best economic use by the law of supply and demand as with other commodities.¹¹ Although to date not actively considered a part of the response to water allocation problems in the eastern states, perhaps water marketing should be added to the mix of possible solutions in those states. As with other possible solutions, however, the riparian rights doctrine may be a barrier to the development of water markets in Arkansas.

Since surface and ground water are not necessarily confined by state boundaries, interstate control of water resources is also a matter of growing concern. Alabama, Georgia, and Florida are currently involved in a bitter dispute over rights to the waters of the Apalachicola-Chattahoochee-Flint river system that supplies more than seventy percent of metropolitan Atlanta's drinking water.¹² Similar interstate disputes may arise over water thought by Arkansans to be theirs.¹³ Legal mechanisms for these disputes are uncertain.

Because the immediacy of the water resource crisis in Arkansas and other eastern states has finally gained public recognition, the planning committee for the 2002 Ben J. Alzheimer Symposium felt that few, if any, topics were more suitable for symposium consideration. Attendance of over

10. In April of 2000 an Israeli water expert, Yosef Dreizin, proposed drilling shafts into the alluvial aquifer underlying the Grand Prairie area of Arkansas. Reservoirs would be constructed over the shafts and precipitation collected in the reservoirs would drain into the aquifer. Plunkett, *supra* note 4.

11. See generally TERRY LEE ANDERSON & PAMELA SNYDER, *WATER MARKETS: PRIMING THE INVISIBLE PUMP* (1997); BONNIE SALIBA & DAVID B. BUSH, *WATER MARKETS IN THEORY AND PRACTICE: MARKET TRANSFERS, WATER VALUES, AND PUBLIC POLICY* (1987).

12. Numerous stories in newspapers, magazines, and other media outlets have reported the dispute. See, e.g., Charles Seabrook, *Florida Again Coaxed To Stay in Water Talks*, ATLANTA J. & CONST., June 13, 2002, at 12A.

13. The most recent perceived threat to water considered by Arkansans to be theirs stemmed from negotiations between interests in Texas and Oklahoma to divert water from three southeastern Oklahoma river basins, including the Little River which flows into southwest Arkansas, to Texas by way of a 100-mile pipeline. Residents were concerned that pumping water from the Little River would diminish the downstream flow into Arkansas. See Kim McGuire, *Texas Thirst Unquenched: Arkansan Says Though Halted for Now, Water Sale by Oklahoma Worries Natural State*, ARK. DEMOCRAT-GAZETTE, Jan. 15, 2002, at A1.

170 at the symposium program held on April 12, 2002, confirmed the wisdom of the planning committee's choice.

Interest in the symposium was significantly enhanced by the outstanding reputations of the speakers who participated in the program. Evidence of the speakers' stature in the field of water resources law is reflected in the process followed to extend invitations to participate. After determining that the symposium subject should be addressed by the most highly qualified experts whose participation could be secured, a list was compiled of persons satisfying that standard in both state and national reputation categories. The "national reputation" list was composed of the fifteen most highly qualified eastern water resource law experts, prioritized based on the value those persons would bring to the symposium. We fervently hoped that from among the fifteen we could secure the participation of three or four. To our immense satisfaction, the top four on the "national reputation" list and all of the Arkansas water resource experts agreed to participate.

The resumes of the symposium participants having national reputations as water resource law experts are replete with outstanding achievements. Each has authored books and numerous articles, been a member and officer of many significant water resource commissions and groups, and given addresses having significant impact on water resource development. Professors Robert Abrams and George Gould have each collaborated on two of the leading water law resource texts used in American law schools.¹⁴ Professor Joseph Dellapenna is the primary drafter of the Regulated Riparian Model Water Code and the co-author of the only book to comprehensively treat the subject of water rights in the eastern states.¹⁵ He has also been actively involved with international water resource issues, especially in the Middle East.

The qualifications and reputation of Arkansas's own Jake Looney fall within both the national and Arkansas groups of participants. Former Dean and Professor at the University of Arkansas School of Law and currently teaching at the University of Arkansas at Little Rock William H. Bowen School of Law, Dean Looney is a nationally recognized authority in agricultural law as well as water law, and he is the source to whom all turn on the subject of Arkansas water law. Alan Perkins, one of the most highly regarded environmental lawyers in Arkansas and a former editor-in-chief of the University of Arkansas at Little Rock Law Journal,¹⁶ and James Good-

14. See GEORGE A. GOULD & DOUGLAS L. GRANT, *WATER LAW* (6th ed. 2000); SAX, THOMPSON, LESHY & ABRAMS, *supra* note 2. Professor Abrams is also co-author of a leading environmental law text. See ROBERT H. ABRAMS ET AL., *ENVIRONMENTAL LAW AND POLICY: NATURE, LAW, AND SOCIETY* (2d ed. 1998).

15. See JOSEPH W. DELLAPENNA ET AL., *WATER RIGHTS OF THE EASTERN UNITED STATES* (Robert R. Wright ed., 1998).

16. In 1998, beginning with volume 21, the name of the *University of Arkansas at Little*

hart, general counsel for the Arkansas Game and Fish Commission, also made superb presentations at the symposium program. As for all of the participants whose written contributions are part of this symposium issue, we believe the quality of their articles will speak for themselves.