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A PROPOSAL FOR ADOPTION OF A LEGAL DOCTRINE OF GROUND-STREAM WATER INTERRELATIONSHIP IN TEXAS

JAMES N. CASTLEBERRY, JR.*

As Texas moves rapidly forward in industrial expansion, mechanization of agriculture, and a surging population growth, there is a legitimate and justifiable concern over the continuing failure of the courts and the legislature to evolve a workable solution to the increasingly critical ground water problem in the state. In 1968, the Texas Water Development Board reported that, at that time, approximately 75 per cent of the water needs of Texas were provided by the use of ground water.¹ Yet, in spite of the obvious importance of this great natural resource to the people of Texas, court decisions have continued to apply the ancient Roman law and pre-industrial revolution ground water concepts which were developed in England, where, unlike Texas, ground water is plentiful. At the same time, the legislature has provided little in the way of positive property rights and only a milk toast approach to the regulation of ground water use, which permits completely local management and control.² Unfortunately, the prognostication which was made shortly after the Texas Groundwater District Act of 1949 became law has been proven accurate: "Because of provincial fears of centralized administration, a comprehensive groundwater code of statewide application seems no more than a fatuous hope at this time."³

A close examination of the case law in Texas reveals, however, that perhaps there may yet remain an opportunity for the Texas courts to

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1. TEXAS WATER DEV. BD., THE TEXAS WATER PLAN II-3, 11 (1968).

2. See Comment, *Ground Water Management: A Proposal for Texas*, 51 TEXAS L. REV. 289, 294 (1973).

3. Comment, *The Texas Groundwater District Act of 1949: Analysis and Criticism*, 30 TEXAS L. REV. 862, 875 (1952).

establish a ground water concept which would be consistent with modern scientific knowledge of geology and hydrology. The policy considerations which should properly underlie a modern rule of law are realized through the recognition and application of a scientifically demonstrable interrelationship between the waters of a flowing stream and those ground waters which feed or contribute to the flow of that stream.

CLASSIFICATION OF GROUND WATER

To the hydrologist water is continually passing through the different phases of an endless cycle in nature generated by solar energy and the force of gravity: solar energy draws water from the seas and lifts it into the atmosphere; gravity causes it to fall back to the surface of the earth where it enters the soil, percolates through the soil in the watersheds into lakes and streams, and eventually flows back into the seas.⁴ In spite of significant and reliable scientific knowledge validating the correctness of the hydrologist's concept of the interrelationship of surface and ground waters, there has been a reluctance on the part of courts and legislatures to adopt ground water laws which operationally recognize this interrelationship.⁵ Instead the law, evolving from pragmatism and compromise, has adopted rules which classify ground waters in categories predicated upon the particular time in the cycle at which the water is taken for use.⁶ Thus, water taken from a flowing stream is classified as water of a watercourse; waters such as the waters of a marsh which would eventually flow into a stream, are classified as diffused surface waters if taken for use before entering the stream. Waters moving through the soil which would flow into a surface watercourse through its banks or bed, but which are captured through a well at a point some distance from the bed or banks of the stream, are classified either as percolating waters or as waters of an underground stream depending upon the nature and characteristics of the geological structure through which they move. A watercourse flow or ground water reservoir may, of course, contain

4. H. THOMAS, *THE CONSERVATION OF GROUND WATER* 243 (1951); U.S. DEP'T OF AGRICULTURE, *WATER YEARBOOK* 1955, at 41-51. In the course of this cycle, approximately 24,000 cubic miles of water fall on the Earth's surface each year, enough to cover the entire State of Texas to a depth of 475 feet. *Id.* at 41.

5. H. THOMAS, *THE CONSERVATION OF GROUND WATER* 136, 138 (1951); see IOWA CODE § 455 A.1 (1971); O'Connell, *Iowa's New Water Statute*, 47 IOWA L. REV. 549, 570 (1962).

6. 1 W. HUTCHINS, *WATER RIGHTS IN THE NINETEEN WESTERN STATES* 23 (1971); H. THOMAS, *THE CONSERVATION OF GROUND WATER* 247, 248 (1951).

undivided segments of these various categories of water each with different rights of use.⁷

The general rule in the United States is that subterranean waters are divided into two classes: percolating waters and underground streams.⁸ Case law usually defines percolating waters as waters which ooze or percolate "through the soil in varying quantities and uncertain directions"⁹ or waters "which ooze, seep or filter through the soil beneath the surface, without a defined channel, or in a course that is unknown and not discoverable from surface indications, without excavation for that purpose."¹⁰ Underground streams have been generally defined as a constant stream of water, flowing in a known and well-defined channel underground.¹¹ In this connection, the word "defined" has been held to mean a contracted and bounded channel, and the word "known" to include knowledge of the stream by reasonable inference.¹²

THE ENGLISH RULE

Judicial decisions dealing with rights in percolating waters are of fairly recent vintage. Apparently the first English case in which the

7. 1 W. HUTCHINS, *WATER RIGHTS IN THE NINETEEN WESTERN STATES* 23-24 (1971). As Thomas and Leopold have pointed out:

Man has coped with the complexity of water by trying to compartmentalize it. The partition committed by hydrologists—into ground water, soil water, surface water, for instance—is as nothing compared with that which has been promulgated by the legal profession, which has on occasion borrowed from the criminal code to term some waters 'fugitive' and others, a 'common enemy.' The legal classification of water includes 'percolating waters,' 'defined underground streams,' 'underflow of surface streams,' 'water courses,' and 'diffuse surface waters;' all these waters are actually interrelated and interdependent, yet in many jurisdictions unrelated water rights rest upon this classification.

Thomas & Leopold, *Ground Water in North America*, 143 *SCIENCE* 1001, 1003 (1964). Thomas, a nationally recognized hydrologist, has been particularly critical of the classifications which the law has given to ground waters. He has also espoused his dissatisfaction with the divergence in the approach to water concepts as between science and law, and even between courts and legislative bodies in the various states:

The legal concepts concerning water, which set the permissive limits of development, have necessarily been founded upon the hydrologic information available at the time they were formulated and thus reflect the incompleteness of scientific knowledge to a degree. The hydrologist can build from scratch in the areas of his most profound ignorance. The specialist in water law has a more difficult job, because legal concepts have been developed even when the hydrologic facts and the underlying basic physical principles were not known. Many established concepts are now known to be scientifically unsound and should be revised in the light of present knowledge.

H. THOMAS, *THE CONSERVATION OF GROUND WATER* 243 (1951).

8. *Jones v. Home Bldg. & Loan Ass'n*, 114 S.E.2d 638, 644 (N.C. 1960).

9. *Strait v. Brown*, 16 Nev. 317, 321 (1881).

10. *Clinchfield Coal Corp. v. Compton*, 139 S.E. 308, 311 (Va. 1927).

11. *Hayes v. Adams*, 218 P. 933, 935 (Ore. 1923).

12. *City of Los Angeles v. Pomeroy*, 57 P. 585, 598 (Cal. 1899).

question was raised was *Hammond v. Hall*,¹³ but the court did not decide the question there. Three years later an English court set out the rights in percolating waters in *Acton v. Blundell*,¹⁴ which established the concept that the owner of the freehold absolutely owned all of the waters percolating beneath the surface of his tract just as he owned the soil and minerals.¹⁵ *Acton* came to be known as the common law doctrine, or the English rule, of percolating water. It is interesting to note that an American case decided seven years earlier reached much the same result.¹⁶

CORRELATIVE RIGHTS DOCTRINE

Relatively soon after the English or common law rule was established by *Acton*, courts in both the United States and England began expressing dissatisfaction with that rule. Justice Coleridge, dissenting in *Chase-moore v. Richards*,¹⁷ expressed the view that rights of adjacent land owners in percolating water should not be governed by the rule of absolute ownership established by *Acton*, but rather by the maxim, *sic utere tuo ut alienum non laedus*. Two years later, in the appeal of that case before the House of Lords, Lord Wensleydale voiced his opposition to the *Acton* doctrine:

13. 59 Eng. Rep. 729 (1840).

14. 152 Eng. Rep. 1223 (Ex. 1843).

15. The court stated:

[T]he person who owns the surface may dig therein, and apply all that is there found to his own purposes, at his free will and pleasure; and that if, in the exercise of such right, he intercepts or drains off the water collected from the underground springs in his neighbor's well, this inconvenience to his neighbor falls within the description of *damnum absque injuria*, which cannot become the ground of an action.

Id. at 1235.

16. *Greenleaf v. Francis*, 35 Mass. (18 Pick.) 117 (1836). An early California decision, *Gould v. Eaton*, 44 P. 319 (Cal. 1896), adopted the *Acton* rationale: "So long as the water is in the condition of filtration or percolation, it is a part of the soil, and subject to the sole dominion of the proprietor of the land in which it is found." *Id.* at 320.

The policy considerations underlying the distinction between the rule applicable to rights in percolating waters and that governing rights in riparian waters was enunciated in an early Vermont Supreme Court decision, *Chatfield v. Wilson*, 28 Vt. 49 (1855).

The secret, changeable, and uncontrollable character of underground water, in its operation, is so diverse and uncertain that we cannot well subject it to the regulations of law, nor build upon it a system of rules, as is done in the case of surface streams.

Id. at 54. Six years later, the Ohio Supreme Court, in the often cited decision of *Frazier v. Brown*, 12 Ohio St. 294 (1861), somewhat expanded the policy considerations in its adoption of the English rule: Correlative rights were not recognized because of difficulty in administration due to then limited technology and because of interference with agriculture, transportation and industry. *Id.* at 311.

17. 157 Eng. Rep. 71 (Ex. 1857).

I doubt very greatly the legality of the Defendant's acts in abstracting water for the use of a large district in the neighborhood, unconnected with his own estate, for the use of those who would have no right to take it directly themselves, and to the injury of those neighboring proprietors who have an equal right with themselves.¹⁸

In the United States, the English rule began to fall into disfavor in the mid-nineteenth century. In 1862, the *Acton* doctrine was rejected by the Supreme Court of New Hampshire, which applied what has come to be known as the rule of reciprocal reasonable use.¹⁹ The dissatisfaction of the American courts with the English rule was aptly expressed by the Minnesota Supreme Court in *Erickson v. Crookston Waterworks, Power & Light Co.*²⁰ After a review of the English decisions, the court observed:

It is evident on its face that rules which might work well in an island like England might operate disastrously if indiscriminately applied to so diversified a continent as this, with its varying mountainous regions, its well-watered plains, its stretches of arid land . . . and its differing lake regions.²¹

By the beginning of the twentieth century, so many American states had adopted the reciprocal reasonable use-correlative rights view that it came to be known as the American rule.²² Generally stated, the reasonable use, correlative rights, or American rule embodies the concept that each owner of a surface tract overlying a reservoir common to several tracts containing percolating water does not have an absolute right or title to the water, but that his property rights are correlative so that each landowner is restricted to such use of the water as is reasonable with respect to his own use and that of the other landowners whose tracts overlie the common reservoir.

It should be noted that there is a recognized distinction between the correlative rights doctrine and the reasonable use rule.²³ The correlative rights doctrine espouses the view that the landowners whose tracts lie

18. 11 Eng. Rep. 140, 156 (H.L. 1859). Another interesting English decision voiced a view of non-ownership of percolating water: "This percolating water below the surface of the earth is therefore a common reservoir or source in which nobody has any property, but of which everybody has, as far as he can, the right of appropriating the whole." *Ballard v. Tomlinson*, 29 Ch. D. 115, 121 (C.A. 1885).

19. *Bassett v. Salisbury Mfg. Co.*, 43 N.H. 569, 573 (1862).

20. 111 N.W. 391 (Minn. 1907).

21. *Id.* at 392-93.

22. 1 R. CLARK, *WATERS & WATER RIGHTS* § 17.2, at 72 (1967).

23. *Id.* at 73, citing Clark, *Ground Water Management: Law and Local Response*, 6 ARIZ. L. REV. 178, 197 (1965).

over percolating water are entitled to extract their pro rata share of the water in such proportion as their surface acreage bears to the acreage of the other owners of tracts overlying the reservoir. The land owner may not take more than his pro rata share of the water if the other landowners will be injured, even though his use of it will be beneficial to his land. In contrast, the reasonable use rule authorizes a landowner to extract his pro rata share of percolating water for reasonable beneficial uses on his land even though in so doing he interferes with his neighbor's uses or drains adjoining land.²⁴

TEXAS LAW OF PERCOLATING WATERS

The Texas statutory provisions setting forth the property rights of the State in waters are contained in Section 5.021 of the Water Code:

The water of the ordinary flow, underflow, and tides of every flowing river, natural stream, and lake, and of every bay or arm of the Gulf of Mexico, and the storm water, floodwater, and rain water of every river, natural stream, canyon, ravine and depression, and watershed in the state is the property of the state.²⁵

This section, however, must be read together with section 5.001²⁶ which states: "Nothing in this code affects vested private rights to the use of water," except the provisions of the Water Adjudication Act²⁷ which purport to affect certain appropriative and riparian water rights in streams covered by that Act. The remainder of these two sections leaves much unanswered. Is it possible, for example, that section 5.021 is susceptible to a modern scientific construction which would conform to the concept that the entire watershed is the generating source from which the water of a river, natural stream, or lake originates or accumulates in its channel. Therefore, the entire sheet of water or water table constitutes the river, natural stream, or lake and never ceases to be such at any time in its centripetal motion toward the central channel.

Judicial Application

The first case involving rights in percolating waters to reach the Texas Supreme Court was *Houston & T.C.R.R. v. East*.²⁸ East complained that the defendant had drilled its well on an adjacent tract and pumped

24. 1 R. CLARK, *WATERS & WATER RIGHTS* § 52.2(B), at 330-31 (1967).

25. *TEX. WATER CODE ANN.* § 5.021(a) (1972).

26. *Id.* § 5.001(a).

27. *Id.* §§ 5.301-5.341.

28. 98 Tex. 146, 81 S.W. 279 (1904).

such large amounts of percolating water for its engines and shop that his well became dry. The court of civil appeals affirmed the judgment of the trial court for damages for an unreasonable use of the water, clearly predicating its decision on the application of the American rule of reasonable use and correlative rights.²⁹ Thus, the Texas Supreme Court was squarely presented with a clear-cut choice of adopting the American rule or, alternatively, the English rule. The court's opinion clearly reflects that it considered the authorities in support of the reasonable use or correlative rights doctrine, but expressly refused to adopt it, electing instead to adopt the English rule of absolute ownership. It should be noted that the court, in support of its position, cited the *Acton* decision³⁰ and the policy considerations expressed in an Ohio case.³¹

The English rule of absolute ownership of subterranean percolating water does not apply to subterranean streams.³² Subterranean streams, as distinguished from subterranean percolation, are governed by the same rules, rights and obligations which are applicable to surface streams. The owner of the surface under which the stream flows can, of course, have legal and equitable relief as against those who divert the water as if it were flowing on the surface of his land.³³ In 1954, the El Paso Court of Civil Appeals, in *Pecos County Water Control & Improvement District No. 1 v. Williams*,³⁴ considered a case in which the plaintiff alleged that the defendant was interfering with his water which had theretofore come to his land in well-defined channels as part of a subterranean stream. The court held, however, that there was no proof in support of the allegations that the water taken was from a well-defined channel of underground water. It therefore refused to pass upon the matter of disposition of the waters of a subsurface stream.

A year later, the Texas Supreme Court had the opportunity to review the *Acton* doctrine and the *East* decision, and to adopt instead the American rule, but it refused to do so.³⁵ Judge Calvert's opinion ex-

29. *East v. Houston & T.C.R.R.*, 77 S.W. 646, 648 (Tex. Civ. App. 1903), *rev'd*, 98 Tex. 146, 81 S.W. 279 (1904).

30. *Acton v. Blundell*, 152 Eng Rep. 1223 (Ex. 1843).

31. *Frazier v. Brown*, 12 Ohio St. 294, 311 (1861).

32. *Texas Co. v. Burkett*, 117 Tex. 16, 28-29, 296 S.W. 273, 278 (1927); *Pecos County Water Control & Improvement Dist. No. 1 v. Williams*, 271 S.W.2d 503, 506 (Tex. Civ. App.—El Paso 1954, writ *ref'd n.r.e.*); *Cantwell v. Zinser*, 208 S.W.2d 577, 579 (Tex. Civ. App.—Austin 1948, no writ).

33. *Willis v. City of Perry*, 60 N.W. 727, 729 (Iowa 1894); *Nourse v. Andrews*, 255 S.W. 84, 86 (Ky. 1923).

34. 271 S.W.2d 503 (Tex. Civ. App.—El Paso 1954, writ *ref'd n.r.e.*).

35. *City of Corpus Christi v. City of Pleasanton*, 154 Tex. 289, 276 S.W.2d 798 (1955).

pressed the view that the *Acton* rule had been in force in this state for such a long time that it had become a rule of property, and that if a change was to be made to the American rule it should come from the legislature, which was then in session.³⁶ No such legislative change has taken place, and Texas remains tied to the *Acton* rule governing rights in percolating waters.

GROUND AND SURFACE WATER INTERRELATION

It is very significant that the Texas decisions have never fully explored or assessed the distinctions which can now be made with the aid of modern technology between percolating waters which never become a part of any flowing stream, and percolating waters which contribute to the flow of streams. There are a number of significant decisions, however, both in England and in other states, which have recognized this distinction. The direct interrelation between the flow of a stream and the percolating water which augments that flow is illustrated in a number of decisions in which owners of riparian and appropriation rights in the waters of a flowing stream have successfully prevented the interception of percolating waters enroute to the stream bed.

In the formative years of decisions on subterranean water rights, the English Courts of Chancery recognized that the burden is on a riparian to show the existence and course of a defined channel of an underground stream. But in order to overcome the presumption that all subterranean waters are percolating waters,³⁷ there must be such an ascertainable interrelation between a surface stream and the subsurface waters which supply the stream flow that a cause of action will lie to prevent the diversion of water from the surface stream by tapping the underground supply.³⁸

In *Smith v. Brooklyn*,³⁹ the New York Court of Appeals held the City of Brooklyn liable to Smith for diminishing the flow of a stream which flowed through Smith's land occasioned by the city's pumping water from wells on its nearby land. The court observed:

All the cases hold that the water of a natural surface stream is for the benefit of all the riparian owners, and that to divert or to diminish its flow in any way is an interference with a natural right, which will give rise to an action for the injury sustained. That

36. *Id.* at 295, 276 S.W.2d at 802-803.

37. *Bradford Corp v. Ferrand*, [1902] 2 Ch. 655.

38. *Grand Junction Canal Co. v. Shugar*, L.R. 6 Ch. 483 (C.A. 1871).

39. 54 N.E. 787 (N.Y. 1899).

the diversion and diminution of the stream were caused by arresting and collecting the underground waters, which, percolating through the earth, fed the stream, does not affect the question.⁴⁰

An excellent example of judicial recognition of the interrelationship between ground water and stream flow in a watershed is *City of Los Angeles v. Hunter*.⁴¹ In that case, the City of Los Angeles sought to quiet title to an asserted paramount right in the waters of the Los Angeles River, and to obtain an injunction restraining defendants from making any diversion of the water when required by the city for municipal and domestic purposes. In holding for the city, the Supreme Court of California reasoned that cutting off this water supply would be very harmful to the Los Angeles River. Because the San Fernando Valley could be "regarded as a great lake filled with loose detritus," draining into the Los Angeles River, the court held that these waters were not percolating "in the common sense of the term."⁴²

The logical rationale of the California courts in treating percolating waters which feed a stream as an integral part of the stream is shown in the supreme court's decision in *Hudson v. Dailey*.⁴³

If the water in the underground strata is in such immediate connection with the surface stream as to make it a part of the stream, as the plaintiff seems to contend, then the defendants' lands overlying such water must be considered as also riparian to the stream, and, under the law of riparian rights, they have a common right with the plaintiff to the use of the water.⁴⁴

40. *Id.* at 788.

41. 105 P. 755 (Cal. 1909).

42. *Id.* at 757. The Attorney General of Texas cited this decision with enthusiastic approval in a 1940 opinion. The opinion strongly advocates that advancements in the science of hydrology, subsequent to early court decisions establishing the common law presumption of percolating waters, make it possible to distinguish the different types of percolating waters. Further the opinion contends that these waters should be classified as a watercourse, or underground stream only if proven by scientific experiment. TEX. ATT'Y GEN. OP. No. O-2402 (1940).

43. 105 P. 748 (Cal. 1909).

44. *Id.* at 752. In *City of San Bernadino v. Riverside*, 198 P. 784 (Cal. 1921), both cities were using water from the same artesian basin, San Bernadino for domestic uses, and Riverside for irrigation outside of the basin. In resolving the rights of the parties to the ground water, the court held:

When a stream runs over porous material saturated with water, and the underground waters support the stream, either by upward or lateral pressure, or feed it directly, persons having rights in the stream will be protected against a depletion thereof by adverse diversions of such underground waters if they are injured thereby. *Id.* at 787. In *United States v. Fallbrook Pub. Util. Dist.*, 165 F. Supp. 806 (S.D. Cal. 1958), the Federal District Court for the Southern District of California recognized and applied the California doctrine of the interrelation of ground and stream waters, but carefully pointed out the proof required to establish such relationship. It is immaterial whether or not the waters concerned form part of an underground stream;

These problems have been faced by other western states, notably Utah, New Mexico and Colorado. Unlike Texas, they have recognized the importance of the ground-stream water interrelationship.

The Utah Supreme Court, speaking to the rights of appropriators, has held that one taking percolating water by means of a tunnel driven below the surface and through a portion of the watershed drained by a surface stream has the burden of proving that such percolating water is not a tributary to the surface stream to which the appropriators of that stream have prior rights.⁴⁵ In *Little Cottonwood Water Co. v. Sandy City*,⁴⁶ the Utah court declared that "no one can interfere with the source of supply of this stream, regardless of how far it may be from the place of use, and whether it flows on the surface or underground."⁴⁷

Perhaps the most famous case enunciating the doctrine of the interrelation of ground and stream waters is *Richmond Irrigation Co. v. Westview Irrigation Co.*⁴⁸ In very clear and emphatic language, the Utah Supreme Court stated the full range and import of the doctrine, holding that the entire water table constitutes the stream or river.⁴⁹

New Mexico has also firmly established the doctrine of interrelation of ground and surface waters. In *Templeton v. Pecos Valley Artesian Conservation District*,⁵⁰ the applicants were appropriators from surface water of the Rio Felix. They applied for a permit to drill wells into the underground basin, but the district contended this was a new appropriation, not just a change or diversion point. The basis of this contention was an alleged absence of a relationship between the surface flow of the Rio Felix, the original point of appropriation, and the underground water basin. In holding for the appropriators, the court found that the headwaters of the Rio Felix sank into the ground and became a part of the basin and then rose again to become the river. The court reasoned that "an appropriation when made follows the water to its original source, whether through surface or subterranean streams or through percolation."⁵¹

only proof that the removal of underground water caused a substantial effect in the surface stream is required. *Id.* at 847.

45. *Mountain Lake Mining Co. v. Midway Irrigation Co.*, 149 P. 929, 934 (Utah 1915).

46. 258 P.2d 440 (Utah 1953).

47. *Id.* at 443.

48. 80 P.2d 458 (Utah 1938).

49. *Id.* at 465.

50. 332 P.2d 465 (N.M. 1958).

51. *Id.* at 470. The important distinction made by the New Mexico courts is whether the water would become part of a natural stream, either above or below the surface. Thus

A similar result was reached in *City of Albuquerque v. Reynolds*,⁵² where the city wanted to drill some wells to a depth of 1,200 feet. It was stipulated that the surface waters of the Rio Grande were fully appropriated. It was also admitted that underground water in the area contributed substantially to the flow of the river, thus constituting a part of the source of the stream flow. The State Engineer, upheld by the district court, found that granting a permit to drill would impair the use of surface flow of water in the stream. The supreme court stated:

In the western states, where the public waters are held subject to use by prior appropriators, it has always been the law that a prior appropriator from a stream may enjoin one from obstructing or taking waters from an underground source which would otherwise reach the stream and which are necessary to serve the stream appropriator's prior rights.⁵³

In Colorado, the doctrine of interrelation of ground and stream water has been an essential part of its water law from the earliest days of its history. This fact was emphasized by that state's supreme court in *Black v. Taylor*,⁵⁴ in which it said:

It has been frequently held by our appellate courts, from a very early date down to the present time, that all underground waters which by flowage, seepage or percolation will eventually, if not intercepted, reach and become a part of some natural stream either on or beneath the surface, are governed and controlled by the terms of the constitution and statutes relative to appropriation, the same as the surface waters of such stream.⁵⁵

One of the cases most often cited in support of the interrelation rule is *City of Colorado Springs v. Bender*,⁵⁶ which involved the withdrawal of water by the parties from an aquifer which was approximately four miles in length. The water of the aquifer was found by the trial court to be a part of Fountain Creek or a direct tributary of it. At the outset of the opinion, the Colorado Supreme Court stated the principle that "all waters are part of a natural water course, whether visible or not, constituting a part of the whole body of moving water."⁵⁷ Thus Colo-

when the water loses its identity as private water, as when it becomes part of a public water supply, it becomes subject to appropriation. *Kelley v. Carlsbad Irrigation Dist.*, 415 P.2d 849, 853 (N.M. 1966).

52. 379 P.2d 73 (N.M. 1963).

53. *Id.* at 79; see *Langenegger v. Carlsbad Irrigation Dist.*, 483 P.2d 297, 300 (N.M. 1971).

54. 264 P.2d 502 (Colo. 1953).

55. *Id.* at 507.

56. 366 P.2d 552 (Colo. 1961).

57. *Id.* at 555. See also *In re Garman Ditch & Reg. Co.*, 139 P. 2, 9 (Colo. 1913) in

rado has joined in the view shared by so many other western states but rejected by Texas.

CONCLUSION

In contemplating the impact of the *East* decision⁵⁸ on Texas ground water law, one is reminded of the often quoted observation of Mr. Justice Holmes:

It is revolting to have no better reason for a rule of law than that to it was laid down in the time of Henry IV. It is still more revolting if the grounds upon which it was laid down have vanished long since, and the rule simply persists from blind imitation of the past.⁵⁹

The Texas Supreme Court has indicated that it feels bound to continue to apply the English rule on percolating waters, even though it is rather obvious that the reasons and policy considerations upon which the rule was originally based vanished many decades ago. But there appears to be no valid reason why the court should feel any reluctance to apply modern scientific geological and hydrological knowledge in making an intelligent, logical determination of just what waters should be properly included in and excluded from the English rule of percolating waters. Judicial recognition of the geological and hydrological fact that ground water, which contributes to the flow of a surface or subsurface stream, is an integral part of that stream and is therefore subject to the law applicable to such watercourses, is consistent with the policy considerations upon which practical rules of law must be predicated.

Thus there appears to be no valid reason why the Texas courts or the legislature should hesitate to recognize the obvious distinctions between those percolating ground waters which contribute in any manner or extent to the flow of a stream, and those which do not. Modern scientific knowledge in the fields of geology and hydrology, presently used in other semi-arid states, must be applied if we are to meet current and future demands for effective and efficient utilization and conservation of water as a valuable natural resource. The courts and legislature should exercise the first opportunity to adopt and implement a modern scientific hydrology oriented ground water concept. Thus courts will recognize the interrelationship of those waters which percolate through the soil and those which feed or support surface or underground streams.

which the court held that streamflow is made up of rains and snowfalls on the surface which finds its way to the streams running through the watersheds in which it occurs.

58. *Houston & T.C.R.R. v. East*, 98 Tex. 146, 81 S.W. 279 (1904).

59. Holmes, *The Path of the Law*, 10 HARV. L. REV. 457, 469 (1897).