

VOL. 5

DECEMBER, 1952

NO. 2-A

SUPPLEMENT

THE
SOUTH CAROLINA
LAW QUARTERLY

SPECIAL ISSUE ON WATER LAW



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SOUTH CAROLINA LAW QUARTERLY
DECEMBER, 1952

Entered as second class matter at the postoffice at
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THE SOUTH CAROLINA LAW QUARTERLY

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Published in September, December, March, and June, by the South Carolina Bar Association and the Faculty and Students of the University of South Carolina School of Law.

Subscription Rates: \$1.00 per copy; \$3.00 a year for current continuing subscriptions. Communications should be addressed to

SOUTH CAROLINA LAW QUARTERLY

UNIVERSITY OF SOUTH CAROLINA

COLUMBIA 1, S. C.

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THE SOUTH CAROLINA LAW QUARTERLY

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PREFACE

The subject of water law is now being given marked consideration throughout the Southeastern and Southern states. One of the sessions of the Southeastern Regional Law Teachers' Conference recently held in Williamsburg, Virginia, was devoted to this subject. We are informed that this Conference session was not only an effort to gather together the present apposite material and court pronouncements but, further, for the purpose of stimulating interest in the subject and discovering those among the faculties of these Conference schools who might be interested to the extent of volunteering further effort in regard thereto. We are also informed that a purpose of this symposium was to develop a base for briefs in the future consideration by the courts and legislatures of this area of policies and principles that would make possible the greatest beneficial use of water as a natural resource.

Though this subject in the symposium was approached from several different angles, no effort was made to consider the legal incidents of artificial rain making or water in the clouds. The spade work in this particular field may be found in articles available in the Stanford, Harvard and Yale Law Reviews, and possibly elsewhere. Mr. Gavin W. Craig, Associate Attorney of the Water Project Authority of the State of California, Sacramento, California, seems to have devoted much time and research in this special field of water in the clouds.

The "South Carolina Law Quarterly" takes pleasure in publishing this special edition on the subject of water law embodying therein the addresses delivered at Williamsburg in September at the symposium then conducted as part of the program of the Southeastern Regional Law Teachers' Conference. This special edition is being issued as a supplement to our regular December 1952 edition.

CARL W. LITTLEJOHN, JR.
Editor.

REMARKS OF SAMUEL L. PRINCE AS MODERATOR

In this symposium we are dealing primarily with the law of water rights in the Southeastern area of our country. It is to be observed, however, that water law is far from uniform in America — the law of the Western states being sharply different from that of the Eastern states. In the United States we find two separate and distinct systems of water rights, water management and control. One of the systems is based on what we call the riparian doctrine and the other is based on what is called the prior appropriation doctrine. These two doctrines are inconsistent with each other and have separate origins.

The riparian doctrine or theory is generally spoken of as deriving from the English common law applicable to water courses and diffused surface water. This is not exactly correct, for its real origin is in the Code Napoleon. Story and Kent adopted the theory from the Code Napoleon but with some modifications, and thereafter the views of these two eminent jurists were followed in England. (It is also observed that the Code Napoleon was directly adopted in the State of Louisiana.) By adopting the basic theories of water law as contained in the Code Napoleon but with modifications, the English judges and Story and Kent thereby rejected the prior appropriation doctrine of Blackstone. In following these earlier pronouncements many of our states thereby incorporated into their common law the limitations of the riparian doctrine. The result of these decisions is the rule of property followed in the Eastern states.

We turn to our Pacific Coast and Great Plains states to find the source of the prior appropriation doctrine. Here appear the Spanish and Mexican influences and the influence of Indian customs and of uses in irrigation and mining. The Indians and miners and irrigators applied the doctrine of prior appropriation, which is not dependent upon ownership of land at or near the source of the water. Though the Pacific Coast and Great Plains states adopted what we call the English common law of water upon their being admitted to the Union, these two systems were diametrically opposed to each other and produced conflicts which had to be resolved under pressure. The prior appropriation system apparently is chiefly concerned with the artificial use of water by owners, whether riparian or not, and the riparian doctrine is chiefly concerned with the natural use of water. By natural use we mean the use on his land by the owner

of land on a stream, of the water of the stream for domestic and household purposes, for drinking water and watering domestic animals. Every other use of the water, whether by the riparian owner or by someone else, appears to be classified as an artificial use. In the West adjustments have had to be made between these two theories or systems, and in the adjustment vested rights have had to be fully protected.

In the Eastern states conflicts are now beginning to appear between water users — users for natural purposes and users for artificial purposes, and in both fields — ground water and surface water. It is entirely possible that the experience in the Western states in adjusting these conflicting theories may be of aid in thinking out the solutions of these problems in the Eastern states.

As confusing as the announced principles in water law in America and England may be — and these pronouncements have been varied — nevertheless, we find something that is fairly constant. Each pronouncement or decision has been materially influenced, if not controlled, by what were at the time local, economic and technological conditions, the customary uses of water, and the relative sufficiency of the water supply.

Water has been and still is plentiful in the Southeastern area; but the marked increase in use needs for industry and agriculture and for municipalities is here and there producing conflicts. Our water supplies are remaining fairly constant and regular, while at the same time the uses and needs are vastly increasing. It is certain that this section will continue to develop, and that the needs for water will ever be multiplied. The differential between supply of water and beneficial use needs will constantly be lessening, and the stresses between rights of users will constantly become greater.

In this symposium the effort has been to discover where we are in the Southeast in the matter of water law and to bring out in bold relief the conflicts in the varying legal theories which may be applicable.

Apparently, very broad principles will have to be determined upon, and some control authority or administrative agency will be needed. Vested property rights will have to be determined and protected. If the present and future inhabitants of a state are to obtain the greatest beneficial use of its water resources, we perceive that there must be some agency that can survey and determine just what these resources now are, how they may be protected, and probably what they will be in the future. Such an agency should be able (within the broad and appropriate principles laid down by legislative author-

ty of the state) to determine who are riparian owners, what are their riparian rights and prescriptive rights, and to what lands these rights are appurtenant. Such an agency should have the power to allocate water not only to riparian owners but to others, for artificial uses in agriculture and industry, for municipalities, for fishing, and even for recreation. It should also apply the "balance of convenience" doctrine. Decisions by such an administrative body should be reviewable by the courts. The agency should have the right to modify any allocation that it may have previously made, and to regulate practices and instrumentalities in such uses. In making allocations there should be such a degree of permanence as to give assurance to investors that they are justified in making large outlays of money dependent upon such allocation. All of this machinery should be set up with a view of preventing waste and making it certain that the people shall obtain the greatest beneficial use from this vital resource. Another reason for early action is that as time goes on an increasingly large number of vested property rights conceivably may be established in the matter of water uses, thereby making less flexible regulations for the allocation and management of water.

There can be no question but that the State has power of regulation in these matters with due regard for the powers of the Federal Government in the field and subject to the constitutional protection of vested rights.

AMERICAN WATER RIGHTS LAW:

A Brief Synopsis of Its Origin and Some of Its Broad Trends with Special Reference to the Beneficial Use of Water Resources†

C. E. BUSBY*

Water problems arise out of too little or too much water. Too little water results from drought, rapid or over development, lack of storage or replenishment, and impairment in water quality by sediment, industrial and human wastes, and by salt encroachment. Too much water results from excessive precipitation and runoff, poor land use practices, and barriers to its movement over and through the land. Water may be an asset or a liability depending upon how it is used and managed. It has seldom been in exactly the right amount, at the right time, and in the right place.¹

After it falls upon the land, water is retarded or accelerated in its movements by land use and water management practices and structures. This affects its availability for use and its capacity to cause damage. Much of this management situation is in the hands of farmers and ranchers of the nation but part is in the hands of non-agricultural groups. Severe erosion, sedimentation and water management problems arising out of improper land use have given rise to one of the most important movements and legal devices for group action in conservation ever to be experienced by agricultural peoples.² This democratic and thoroughly American approach to the solution of local problems might prove useful in other spheres of activity.

Often the upstream portion of drainage areas or basins is dominated by one combination of water supply and damage conditions while the downstream portion is dominated by another. Seasonal changes alter this situation somewhat. Thus, for centuries there have been sharp conflicts among land and water users, states and nations owing to the fact that the source of water and the damage caused by it

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†This article does not necessarily represent the views of the U. S. Department of Agriculture.

1. BENNETT, H. H., WATER IN THE GROUND: TOO MUCH OR TOO LITTLE WATER. Soil Conservation, vol. XVI, pp. 153-157. February, 1951.

2. SOIL CONSERVATION DISTRICTS. (Mimeographed report by U. S. Soil Conservation Service released July, 1952.) Note: This report shows more than 2,400 districts organized in 48 states, Puerto Rico, the Virgin Islands, Hawaii and Alaska, including 84 per cent of the farms in the United States.

often arise in different localities and jurisdictions from the place where water is used and the damage takes place.³ The resolving of these conflicts among water users and governments has presented monumental tasks for engineers, lawyers and statesmen in many parts of the world.⁴

Different systems of custom and law affecting the use and management of water seem to have arisen out of these basic physical and human relationships. In our 17 western States, which are generally considered a shortage region but have also conditions of excess water, a system of prior appropriation has emerged. This emphasizes exclusive rights of use for specific quantities, times and places, subject to the rule of reasonable beneficial use but not depending upon ownership of land contiguous to the water supply.⁵⁻⁶ Here there is nearly uniform state-wide administration of water development and use,⁷ since ordinary processes of law are inadequate⁸ and entire sources of supply are considered.⁹ But of course this system is superimposed upon a residual one of the modified common law in the Pacific Coast and Great Plains states, especially in California where it is still very important.¹⁰

In the eastern 31 States, however, which are generally considered a water excess region but have also conditions of shortage, a system of the modified common law of water rights obtains. This emphasizes rights of water use in common without regard to specific quantities, times and places of use, subject to the rule of reasonable use, but depending in the first instance upon ownership of land contiguous to the water supply.¹¹ Here there is a lack of state-wide administra-

3. WIEL, S. C., FIFTY YEARS OF WATER LAW, 50 HAR. L. REV., 252, 254, 267 (1916); NEWELL ON IRRIGATION MANAGEMENT (1916); REPORT, PRESERVATION OF THE INTEGRITY OF STATE WATER LAWS, NAT. RECL. ASSOC., Appendix G, pp. 165-168 (1943); U. S. v. Gerlach Live Stock Co., 339 U. S. 725, 746-747 (1949).

4. See, for example, report on the Colorado Basin, House Document 717, 80th Congress, 2d Session, 1948.

5. HUTCHINS, WELLS A., SELECTED PROBLEMS IN THE LAW OF WATER RIGHTS IN THE WEST, pp. 80-107 (1942).

6. REPORT, PRESIDENT'S WATER POLICY COMMISSION, WATER RESOURCES LAW, vol. III, pp. 154-167 (1950) with footnotes thereto and including particularly Appendix B by Wells A. Hutchins.

7. Hutchins, *op. cit.* (footnote 5), p. 77.

8. Report, *op. cit.* (footnote 6), p. 158.

9. Rasmussen v. Moreni Irr. Co., 56 Utah 140, 153, 189 Pac. 572 (1920); Richlands Irr. Co. v. Westview Irr. Co., 96 Utah 403, 418, 80 Pac. (2d) 458 (1938); Hutchins, *op. cit.* (footnote 5), pp. 128-129. See also *infra*, cases cited under footnote 6.

10. Hutchins, *op. cit.* (footnote 5), pp. 42-64; U. S. v. Gerlach Live Stock Co., *supra*; Report, *op. cit.* (footnote 6), p. 156 with footnote.

11. Heath v. Williams, 43 Am. Dec. 265, 270-276 (1845); and cases therein cited; Shively v. Bowlby, 152 U. S. 1, 14-15 (1894) and cases therein cited.

tion of water development and use in the comprehensive sense in which it is carried out in the West. But there is present in some states a limited appropriation and administrative system imposed upon the modified common law.¹² Each of these systems of custom and law recognizes water rights acquired by adverse use.¹³

In several states, the civil law rule of diffused surface waters is in effect while in others the common law rule applies.¹⁴ But in the West, the unrestricted use of diffused surface waters by the landowner may be limited because these waters constitute one source of stream flow to which other rights attach.¹⁵

The main differences in the riparian and prior appropriation systems, aside from the extent of development of the rules of law applying to specific circumstances, (and there are differences in this regard too), are the greater emphasis which the system of prior appropriation places upon the beneficial use of water, the exercise of statewide administration of rights and development, and protection for and encouragement of investments dependent upon water resources.¹⁶ Here is where practical problems of policy arise having effect upon the development, use, conservation and protection of land and water resources.

It has been said that "moderating principles of correlative rights and reasonable use seem to be outstripping exclusive rights by priority of appropriation in general esteem"¹⁷ but, in the West, this view is not borne out in respect of rights as the recorded decisions and statutes show a steady trend toward restricting the application of the common-law doctrines. In fact, the rule of reasonable use seems to be employed as one method for accomplishing such a restrictive policy.¹⁸ In a very broad sense, it appears that as our economy expands and demands for water tend to outstrip the available supply, the policy of the law of water rights tends to move more and more toward principles of exclusive use in the western States, the exclu-

12. MCGUINNESS, C. L., WATER LAW WITH SPECIAL REFERENCE TO GROUND WATER. U. S. G. S. Cir. 117, pp. 17-30 (1951); Report, *op. cit.* (footnote 6).

13. 56 AM. JUR. 323-339; Hutchins, *op. cit.* (footnote 5), p. 397.

14. Levene v. Salem, 191 Oreg. 182, 191-192, 229 Pac. (2d) 255 (1951); 56 AM. JUR. 550.

15. Hutchins, *op. cit.* (footnote 5), p. 127.

16. Report to the Governor of Kansas, THE APPROPRIATION OF WATER FOR BENEFICIAL PURPOSES, p. 19 *et seq.*, December, 1944; Hutchins, *op. cit.* (footnote 5), pp. 42, 72-77, 298-313, 326-336.

17. Wiel, *op. cit.* (footnote 3), p. 252.

18. Hutchins, *op. cit.* (footnote 5), pp. 42, 116; CALIF. CONST., Art. XIV, Sec. 3; U. S. v. Gerlach Live Stock Co., *supra*; Report, *op. cit.* (footnote 6), App. B, note especially summary for Oregon and Kansas; Bristor v. Cheattam,Ariz., 240 Pac. (2d) 185 (1952). See also Report, State Water Law in the Development of the West, Nat. Rec. Plan Bd., p. 9 (1943).

sive use to be a reasonable, beneficial use.

Our common-law system of water rights seems to have had its inception in a simple economy of natural water uses in continental Europe where the supply of water was generally in excess of requirements.¹⁹ But our prior appropriation system has had its inception in a more complex economy of artificial uses in the West.²⁰ The experience in the West may prove useful in pointing the way for adjustments in the policy of the law in other areas. If so, it may be of interest to consider the manner in which the two American systems originated and what they mean to our expanding economy in which water is playing and may be expected to continue to play such a vital if not dominating role.²¹

ORIGIN OF THE AMERICAN COMMON LAW SYSTEM OF WATER RIGHTS

The English common law was in effect in the original thirteen colonies as the rule of decision before the Revolution.²² But it is doubtful if the original adoption of such a vast body of legal principles was made with conscious regard of an English system of water rights for there appears to have been none at that early date.²³ As late as 1929, the Supreme Court of Hawaii declined to follow the so-called English common law on ground waters for these very reasons.²⁴ It has also been held as a general principle that the common law developed in England after the American Revolution is not part of the common law which is to be applied in the courts of the States.²⁵ In view of these circumstances the question arises as

19. WIEL, S. C., ORIGIN AND COMPARATIVE DEVELOPMENT OF THE LAW OF WATERCOURSES IN THE COMMON LAW AND CIVIL LAW. 6 CALIF. L. REV. 245 (1918); U. S. v. Gerlach Live Stock Co., *supra*.

20. Hutchins, *op. cit.* (footnote 5), pp. 66-67; Report, *op. cit.* (footnote 16).

21. Note: Much of this article is based upon the thorough and very scholarly treatment of the subject of water rights by two American authorities, Samuel C. Wiel and Wells A. Hutchins. Mr. Hutchins indicates that Mr. Wiel was a master of the French language and thus was able to go directly to the original sources used by Story and Kent, as hereafter referred to. The very able contributions of these two American authorities are gratefully acknowledged.

22. 12 C. J. 184-186 and cases there cited.

23. WIEL, S. C., WATER RIGHTS, 3d ed., ch. 28, 29; Wiel, *op. cit.* (footnote 19), p. 246. See also 24 MINN. L. REV. 891 (1940) in respect of the "common enemy" rule and the English common law.

24. HUTCHINS, WELLS A., THE HAWAIIAN SYSTEM OF WATER RIGHTS, p. 97 (1946); City Mill Co. v. Honolulu Sewer & Water Comm., 30 Haw. 912, 938-943 (1929) and cases therein cited. See Acton v. Blundell, *infra*. (footnote 32), p. 1234—"No case has been cited on either side bearing directly on the subject in dispute." See also 3 KENT COM. 440, footnote c (12th ed.).

25. 12 C. J. 192; 15 C. J. S. 623; see also Mr. Justice Story in Van Ness v. Pacard, 2 Pet. 137, 143, 144, 7 L. Ed. 374—"The common law of England is not to be taken, in all respects, to be that of America. Our ancestors brought with them the general principles, and claimed it as their birthright; but they brought with them and adopted only that portion which was applicable to their

to what principles of water law existed in England prior to and after the Revolution in America, the extent to which these were recognized and enforced by the courts, if at all, and how a system became established there which had influence in America.

INFLUENCE OF EARLY ENGLISH AUTHORITIES: THE YEAR BOOKS, LORD COKE, AND BLACKSTONE

We are told that the Year Books reflect no system of water-rights law in England but that they did recognize established customary or adverse uses in streams, not as rule of property law but rather as recognized forms of pleading. The assize of nuisance, and later, trespass on the case seem to have been recognized forms of action for wrongful diversion of a stream from one who had long enjoyed its use.²⁶⁻²⁷ However, little seems to have been said about ground water.

These early beginnings of water law seem to be similar in a general way with respect to the development of custom to those which took place in California and other parts of the Southwest.²⁸ The natural outgrowth of such an approach, if it had continued and received final sanction of the courts, might have been the establishment of a system of water law adapted to the early industrial conditions of England where artificial uses were then being made in a limited way. Whereas use for mining and irrigation seems to have been the impetus for the development of water customs in California and the Southwest,²⁹ use for mills and the watering of meadows seems to have been the impetus in England.³⁰ However, the beginnings of customs in England did not appear to have reached the stage where they were given final sanction of the courts and legislature such as took place in our western States.³¹

situation." Note: No attempt is here made to consider the full application of these and related authorities to the field of water rights or the effect of constitutional, statutory, and judicial adoption of the English common law after the American Revolution.

26. Wiel, *op. cit.* (footnote 23).

27. WIEL, S. C., WATERS: AMERICAN LAW AND FRENCH AUTHORITY, 3 HAR. L. REV., 133, 141 with citations and references there noted.

28. Hutchins, *op. cit.* (footnote 5), p. 67; Wiel, *op. cit.* (footnote 23), p. 6.

29. Hutchins, *op. cit.* (footnote 5), p. 67; RICKETTS, A. H., AMERICAN MINING LAW, pp. xxii-xxiii (1931 ed.).

30. 2 BLKS. COM. 403; WOOLRYCH ON WATERS, p. 177; 9 S. C. 294 (1837); 13 S. C. 63 (1845); Heath v. Williams, *supra*; Wiel, *op. cit.* (footnote 27), p. 141.

31. Note: The courts in Mason v. Hill, 5 Barn. & Adol. 1, 110 Eng. Rep. 62 (1833), Wood v. Waud, 3 Exch. 748, 154 Eng. Rep. 1047 (1849), and Omdenvy v. Jagers, 2 Hill. 634, 9 S. C. 294 (1837) treated Blackstone as dicta.

We are told that Lord Coke did not erect a system of water law though he did include water with land under the adopted maxim "*Cujus est solum ejus usque ad collum et ad inferos.*" This appears to have led toward decisions which did affect ground-water law in England and later in America but which, in some respects, seem to have been unfortunate when considered from the standpoint of sound development and conservation.³² Lord Coke's thinking may be excusable, however, because the behavior of surface water has always been more readily understood than that of ground water. The latter often has been thought of as quite mysterious when in fact it is not. The main problem has been the lack of reliable information concerning the occurrence and behavior of ground waters. Engineers, geologists and others have severely criticized principles of ground-water law based upon the type of thinking expressed by Lord Coke.³³ His influence does not seem to have extended very far into the surface-water field, though he was cited in the early cases.³⁴

The recognition of customary uses of streams in England seems to have influenced Blackstone, though he may also have been influenced by the Roman law.³⁵ From recognition of long established uses, he appears to have attempted to erect a system of water rights for water-courses but it was not given final acceptance as such.³⁶ He outlined, among others, two broad principles. The first was based upon long continued use of and access to a stream. In this respect it was not far removed from the riparian principles later adopted in England but he did not emphasize use in common nor ownership of lands

In contrast the courts of the West and the Congress of the United States recognized the customs of the miners and sanctioned them as law. See Hutchins, *op. cit.* (footnote 5), pp. 67-73; Ricketts, *op. cit.* (footnote 29), pp. xxiv, xxv.

32. Wiel, *op. cit.* (footnote 19), p. 246; Wiel, *op. cit.* (footnote 27), pp. 141-143 with footnotes thereto; Acton v. Blundell, 12 M. & W. 324, 354, 152 Eng. Rep. 1223, 1228, 1233, 1235 (1843) with references particularly to Blackstone and Story.

33. THOMPSON, D. G. AND FIELDER, A. G., SOME PROBLEMS RELATING TO LEGAL CONTROL OF USE OF GROUND WATERS, JOUR. AM. WATER WORKS ASSOC., vol. 30, No. 7, July, 1938; TOLMAN, C. F. AND STIPP, AMY C., ANALYSIS OF LEGAL CONCEPTS OF SUBFLOW AND PERCOLATING WATERS, TRANS. AM. SOC. CIVIL ENG., vol. 67, No. 8, Part 2, October, 1941; THOMAS, HAROLD E., THE CONSERVATION OF GROUND WATER, pp. 243-267, 1951, New York, Toronto and London.

34. See, for example, Shury v. Pigot, 3 Bulst. 339, 81 Eng. Rep. 1163 (1625).

35. Shury v. Pigot, *supra*; 2 BLKS. COM. 403 with footnote No. 7 thereto; Wiel, *op. cit.* (footnote 27), p. 143. See also Report to Governor of Kansas, *op. cit.* (footnote 16), p. 21.

36. 2 BLKS. COM. 403; 3 BLKS. COM. 218; Wiel, *op. cit.* (footnote 19), p. 246. Note: Blackstone was born in 1723 and died in 1780. Most of his legal work was done after 1746 when he was admitted to the Bar. Some American colonies adopted the English common law before Blackstone was born—South Carolina in 1712, State v. Charleston Bridge Co., 113 S. C. 116, 125, 126, 101 S. E. 657 (1919).

contiguous to the stream as prerequisite to its use.³⁷ In fact, he could not very well do so because his second principle, being based upon priority of occupation on the stream, constituted a limitation upon the first principle and was diametrically opposite to the concept of use in common.³⁸ It appears that Blackstone attempted to move beyond recognition of procedural rights to those of substantive rights of property in waters which counsel in some of the cases had indicated were implied from those procedural rights, and which later courts, in looking back, seemed to consider as if there had been substantive rights.³⁹ The second principle seems to have been tentatively accepted by the courts as the doctrine of prior occupancy of those times and was held to be the law of England as late as 1831.⁴⁰ These principles were followed to some extent in America but there was a wavering away from them at an early date.⁴¹ In view of our extensive Western experience in which the policy of the law seems to be moving steadily toward the views expressed by Blackstone, it appears that he was a hundred or more years ahead of his contemporaries in this field. However, his influence does not seem to have extended to ground waters, possibly because there appears not to have been many cases during his time that raised fundamental issues concerning ground waters.

Although Blackstone's thinking was adopted in some early American decisions, some courts, notably New Jersey, began to veer away from his concept of exclusive rights by reason of prior occupancy toward the riparian theory of rights in common. One early New Jersey case used Latin words much the same as those later used in connection with the statement of the riparian principles but did not use the word riparian.⁴²

And then came the American and French revolutionary movements with special emphasis upon the rights of man.

37. 3 BLKS. COM. 218 — "it is a nuisance to stop or direct water that we to run to another's meadow (6) or mill (k); to corrupt or poison a watercourse * * * in the upper part of the stream (1) * * *". See also *Haymes v. Gault*, 1 McCORD. 543, 545 (1822).

38. 2 BLKS. COM. 403 — "If a stream be unoccupied, I may erect a mill thereon, and detain the water; yet not so as to injure my neighbor's mill, or his meadow; for he hath by the first occupancy acquired a property in the current."

39. *Acton v. Blundell*, *supra*; GRAY, CASES ON PROPERTY, Vol. II, 2d ed. pp. 81-82, concerning *Shury v. Pigot* and particularly footnote 1, p. 82 concerning *Shotwell v. Dodge*, 8 Wash. 337, 339-340 (1894).

40. *Liggins v. Inge*, 7 Bing. 682, 893, 131 Eng. Rep. 263 (1831); *Wiel, op. cit.* (footnote 27), p. 133.

41. *Wiel, op. cit.* (footnote 27), p. 140 with footnotes. See also *Haymes v. Gault*, *supra*.

42. *Merrit v. Parker*, 1 Cox (N. J.) 460, 463 (1795); *Wiel, op. cit.* (footnote 27), p. 140 with footnote and p. 146 with footnote.

INFLUENCE OF THE AMERICAN AND FRENCH REVOLUTIONARY MOVEMENTS

Blackstone died in 1780. In 1804 the Code Napoleon was promulgated in France. In 1812, it was adopted in the State of Louisiana.⁴³ The Revolution in America and its aftermath took place during this general period. The French helped the American colonies gain their independence. Feelings were running very high in favor of the philosophy of the natural rights of man and the concept of equality. Feelings in the new states and nation were running equally high against England and everything English. In some states, such as New Jersey, Kentucky and New Hampshire, authorities went so far as to refuse to permit English decisions to be relied upon.⁴⁴ This turning away from English guidance to that of France seems to have been one of the most significant factors in the trend of surface-water law. But it did not extend to ground-water law. And in fact the turning away did not last many years, insofar as the law was concerned, for the key decisions of the English courts, subsequently cited in American courts, were taken between 1830 and 1850.

INFLUENCE OF THE EARLY AMERICAN AUTHORITIES: STORY AND KENT

It was in the midst of this period of political adjustment, with all its emotional overtones, that the English common law of waters was established and also the strict French riparian law as set forth in the Code Napoleon. Some American courts had looked to the civil law for illustration and explanation but most of them did not seem to draw upon this source for decision until Story and Kent appeared on the scene with their new ideas gleaned from France and Rome, and until the Code Napoleon was adopted in Louisiana. It has been said that the early judges could not use French, so could not go directly to French civil law.⁴⁵ But under the influence of these two eminent American jurists, who happened to be masters of the French language, and through them and the English decisions based upon their thinking, a considerable number of American courts are said to have adopted the main principles of the French civil law of water-

43. *Wiel, op. cit.* (footnote 27), p. 134.

44. *Wiel, op. cit.* (footnote 27), p. 134; GRAY, NATURE AND SOURCES OF THE LAW, 323; POUND, 3 ILL. L. REV. 354, 357-359 with footnotes; MEMOIRS OF CHANCELLOR KENT, 117-118; PAINE, THOMAS, RIGHTS OF MAN; FEDERALIST PAPERS, No. 10 (Madison), pp. 58-59.

45. *Orleans Navigation Co. v. New Orleans*, 2 Martin (O.S.) 214 (1812); *Pable v. Brown*, 2 Hill Eq. 378 (1835); *Wiel, op. cit.* (footnote 19), pp. 209-252; 3 ILL. L. REV. 354.

courses and diffused surface waters.⁴⁶ Here is where the concept of equality of right among riparian proprietors, modified by the rule of reasonable use seems to have been introduced into English and American water law. Here is where the concept of the right of the upper landowner to have his drainage waters flow unobstructed over the lower tenement seems to have become adopted.⁴⁷

Until 1827, no American decision or treatise appears to have used the word riparian, though as indicated previously the New Jersey courts had used language peculiar to riparian law and the Code Napoleon had been adopted in Louisiana at earlier dates. Story used the word riparian for the first time in *Tyler v. Wilkinson* and spelled out there the rights of riparian proprietors, both individually and collectively. His expressions regarding their collective rights, above those of prescriptive or other right holders, is interesting when considered with respect to the concept of the "negative community" which underlies our entire system of the law of watercourses, except as modified by constitutional provisions and statutory declarations of public policy.⁴⁸

Kent's statements on the riparian doctrine came in 1828.⁴⁹ His most recent decision prior to that date did not contain reference to the word "riparian" or the riparian concept as such.⁵⁰ Angell, who published his second edition in 1833, attributed first use of the word to Story. But we do not know exactly where Story got it or some of his ideas concerning the doctrine. However, we are sure regarding the origin of Kent's words and ideas for his works are replete with material and citations from the Code Napoleon, the Institutes of Justinian, the works of Pothier, and others. We also have his reasons for adopting and modifying these authorities.⁵¹ He seems

46. 56 AM. JUR. 550; 67 C. J. 864-866; Wiel, *op. cit.* (footnote 19), pp. 26-250; Wiel, *op. cit.* (footnote 27), p. 135; POUND, 3 ILL. L. REV. 354, 360 with footnotes; Hutchins, *op. cit.* (footnote 5), p. 30; 24 ILL. L. REV. 896-897 (1940).

47. Orleans Navigation Co. v. New Orleans, *supra*; 3 KENT COM. 353, 355 (1828); Overton v. Sawyer, 46 N. C. 308 (1854); Kauffman v. Griesem, 26 Pa. St. 407, 413 (1856); Butler v. Peck, 16 Ohio St. 334 (1865); Gillham v. Madison R. Co., 49 Ill. 484, 486-487 (1869); Ogburn v. Conner, 46 Calif. 351-352 (1873); Omelvany v. Jagers, *supra*; White v. Whitney Mfg. Co., 60 S. C. 254, 265, 266, 38 S. E. 456 (1901); Wiel, *op. cit.* (footnote 27), p. 138; Wiel, *op. cit.* (footnote 19), p. 252; Pound, *op. cit.* (footnote 46).

48. Tyler v. Wilkinson, 4 Mason 397, Fed. Case No. 14, 312 (1827); 3 KENT COM. 439 (1828); Wiel, *op. cit.* (footnote 23) including ch. 41; Wiel, *op. cit.* (footnote 19), p. 254; Hutchins, *op. cit.* (footnote 5), pp. 27-29. Statutory declarations of public policy relate to declarations that the waters of a state are public property and belong to the people of the state, as in several western States.

49. 3 KENT COM. 353, 355 (1828).

50. Van Bergens v. Van Bergens, 3 Johns Ch. (N. Y.) 282 (1818); Wiel, *op. cit.* (footnote 27), p. 140.

51. 3 KENT COM. 353, *et seq.*; Wiel, *op. cit.* (footnote 27), p. 136.

to have drawn upon most of the civil law sources then available to him. In this connection it should be noted in passing that his adoption of the broad principles of the Roman law may be as important as those of the French law. Kent seems to have been in the forefront of this movement to use civil law principles. It seems unfortunate that his concepts or those of Blackstone were not given more consideration in respect of ground water during this formative period.⁵²

It appears that Kent was more influential of the two great jurists in the field of American water law because of his full consideration of French and Roman principles; and because of the fact that his summation of civil law principles, as he had adapted them to conditions then existing, has been quoted with approval by American and English courts when establishing definitive statements of the law.⁵³

But there is no aspect of Kent's thinking which should be noted further. In applying the principle of reasonable use as a limitation on the strict French riparian law of the Code Napoleon, he emphasized that this was necessary to aid in making beneficial use of streams. This certainly was a step in the right direction from the standpoint of beneficial use of the natural flow. But he does not appear to have recognized the monopoly aspects of the doctrine as he modified it in respect of the surplus flow above the normal requirements of riparian proprietors. The principles of the Code Napoleon had tended to give downstream proprietors a monopoly of the natural flow, thus limiting the use of the stream in the upper reaches of a watershed. Story seems to have recognized a collective monopoly in the hands of all riparian proprietors on a stream because he indicates that all waters not belonging to prescriptive or other holders belong to riparian proprietors. In any event, either concept, Story's or Kent's, tends to hold the surplus stream flow in a nonuse or non-consumptive use reserve to satisfy the natural flow rights of riparian proprietors.⁵⁴ This is a very vital aspect of water law for it concerns artificial uses and needs, especially for those enterprises not contiguous to streams but dependent thereon for water supplies. The use of the surplus stream flow has been a very important factor in the growth of the West. The doctrine of prior appropriation has played

52. 3 KENT COM. 354, 355 (1828) noting comment at footnote, p. 439; Wiel, *op. cit.* (footnote 19), pp. 251-254; INST. JUST. LIB. 2, sec. 1; Wiel, *op. cit.* (footnote 23) including ch. 41.

53. See, for example, Omelvany v. Jagers, *supra*; Embrey v. Owen, 6 Ex. 353 (1851) and White v. Whitney Mfg. Co., *supra*; POUND, 3 ILL. L. REV. 360, including footnote 29 thereto; Wiel, *op. cit.* (footnote 19), pp. 250-251.

54. Tyler v. Wilkinson, *supra*.

a significant part as a legal device in reaching that surplus flow to meet reasonable non-riparian needs.

The riparian principles of Story and Kent did not appear in English decisions, as such, until 1849, though the prior appropriation doctrine of Blackstone had begun to be rejected much earlier. In the key case, *Wood v. Waud*, the English court drew freely upon the views of the two American jurists for guidance.⁵⁵ Thus we are advised that civil law principles were received into the English common law of surface waters by way of Story and Kent.⁵⁶ The key case has been cited in American courts ever since as authority on riparian law, though it was distinguished shortly thereafter in respect of diffused surface waters and ground waters.⁵⁷

This paper does not attempt to trace the origin of the English common law of ground waters much beyond the thinking of Lord Coke and the holding in *Acton v. Blundell* for they seem to have been the principal sources of authority until the strict common law rule was later modified in several of our states by application of the rule of reasonable use. This modification seems to have started first in New Hampshire in 1862.⁵⁸

The case of diffused surface waters appears to be more complex and confusing but nevertheless important from the standpoint of conservation, both of water and soil. The law of England apparently places ownership of these diffused surface waters in the owner of the land on which they arise. Kent and the French civil law seem to be the main sources for civil law principles adopted in America. But the problem involves both the right to use those waters and the right to pass them or have them passed from higher to lower lands. We are told that there are considerable dicta in American cases on the subject of use. In view of the confusion which seems to exist in the decisions, a specific statement on this subject will be left to later and special treatment.⁵⁹

55. *Wood v. Waud*, *supra*; *Mason v. Hill*, *supra*; *Wiel*, *op. cit.* (footnote 19), pp. 246-247; *Hutchins*, *op. cit.* (footnote 5), pp. 38-39.

56. *Wiel*, *op. cit.* (footnote 19), pp. 245, 248, 253.

57. *Wiel*, *op. cit.* (footnote 27), p. 145; *Arkwright v. Gill*, 5 M&W 203, 151 Eng. Rep. 87 (1839); *Acton v. Blundell*, *supra*. Note that the court in *Acton v. Blundell* seems to rely upon Roman law in view of the lack of "no direct authority".

58. *Bassett v. Salisbury Mfg. Co.*, 43 N. H. 569, 82 Am. Dec. 179 (1862); *Hutchins*, *op. cit.* (footnote 5), p. 158.

59. *Hutchins*, *op. cit.* (footnote 5), pp. 111-114; *Rawstron v. Taylor*, 11 Ex. 369, 156 Eng. Rep. 873 (1855); *Broadbent v. Ramsbothom*, 11 Ex. 602, 156 Eng. Rep. 971 (1856); 24 MINN. L. REV. 891-939 (1940); *DOMAT, J., THE CIVIL LAW IN ITS NATURAL ORDER*, vol. I, par. 1583, p. 616, CUSHING ED. (1853).

ORIGIN OF THE AMERICAN SYSTEM OF PRIOR APPROPRIATION

The American system of prior appropriation has been said to have had its origin in the mining camps of the western States, particularly in California, and in the irrigated areas of Arizona and New Mexico established originally under the Indian, Spanish and Mexican occupations.⁶⁰

This system recognizes water rights as real property, limited to a right of use until the water is taken into possession when it becomes, in most States, personal property. In this general respect of the rights of use, the prior appropriation and common law systems for watercourses are very much alike. They are also alike in that the rule of reasonable use applies, though its underlying basis differs in the two systems, the appropriation system placing greater emphasis upon the beneficial nature of the use and the common law system placing greater emphasis upon the claims to water rights of all other riparian proprietors. In California, where the distinction formerly prevailed, the two doctrines are now exactly alike in this respect.⁶¹

There is some disagreement among students as to the origin of our Western custom of appropriating water. One view is that it came from the Indian, Spanish and Mexican occupations. Another view is that it was born of necessity in the California gold mining camps. The weight of opinion seems to favor the latter in view of the specific procedure which these customs left to us and which have been followed in many western States. It is clear that the mining customs which recognized property rights by reason of discovery and development, as the basis for establishment and continuance of title, have had an important bearing upon the adoption of the doctrine of prior appropriation since the latter depends upon the taking of possession of water and putting it to beneficial use within a reasonable time as the basis for establishment and continuance of title. Both in the case of irrigation and in the case of mining, the use of land and the use of water are very closely associated for one without the other has limited value. Water is generally considered appurtenant to the land, though not inseparably so.⁶²

60. *YALE, MINING CLAIMS AND WATER RIGHTS* (1869); *LINDLEY ON MINES*, 3d ed., §§ 40-49 (1914); *COLBY, W. E.*, 4 CALIF. L. REV., 437-452 (1916); *Ricketts*, *op. cit.* (footnote 29); *Hutchins*, *op. cit.* (footnote 5), pp. 27-29, 64-69; *Report to Governor of Kansas*, *op. cit.* (footnote 16), p. 21; *COLBY*, 33 CALIF. L. REV. 371 (1945); *U. S. v. Gerlach Live Stock Co.*, *supra*, together with footnote on historical background of water doctrine.

61. *Wiel*, *op. cit.* (footnote 23), p. 20; *Hutchins*, *op. cit.* (footnote 5), pp. 28-29; *Report, Water Resources Law*, *op. cit.* (footnote 6), pp. 175-178.

62. *Ricketts*, *op. cit.* (footnote 29), p. xxiii; *Hutchins*, *op. cit.* (footnote 5),

INFLUENCE OF THE INDIAN, SPANISH AND MEXICAN OCCUPATIONS
ON IRRIGATION

Prior to the American occupation of the West, this vast area was under the control of Indian tribes and subsequently, the French, Spanish, Mexican, and British Governments. The area involved in the Louisiana Purchase was acquired from France in 1803, a year before the Code Napoleon was promulgated in France and nine years before it was adopted in Louisiana. Mexico gained her independence from Spain in 1821 and Texas, her independence from Mexico in 1836. California and adjacent territory, which later became part of Arizona, were acquired from Mexico in 1848 and 1853. The Northwest Territory was acquired from England during the same general period. These changes in jurisdiction took place shortly before or shortly after the decisive water rulings in England. Thus, except for the State of Texas and scattered localities held in private ownership and recognized as such, the entire West became public domain under the control of the Federal Government. This has profoundly affected all Western water law and programs. It contrasts sharply with the situation in the eastern States, though the original thirteen states ceded to the Federal Government much of their lands lying toward the Mississippi River. In turn, the Federal Government granted large areas of wet lands to the newly formed states east of the Mississippi but west of the original states. Later the Government granted vast acreages of both wet and dry lands beyond the Mississippi to private individuals, transportation companies, and the states which were formed out of the public domain. In the Great Plains almost all of the public domain passed into private ownership but in the Intermountain Plateau country, most of the land remained public domain.⁶³

It appears that there were local Indian water customs in effect in this territory, especially in the States of Arizona and New Mexico. Water was diverted from streams for irrigation of alluvial valleys without regard to whether or not lands were contiguous to the streams. Diffused surface waters were caught and distributed by crude rock-spreading devices over sloping mesa lands.⁶⁴ But it is not clearly evident as to the extent to which Indian customs of water

pp. 67, 385; U. S. v. Gerlach Live Stock Co., *supra*. See, especially, COURTNEY, THE FREEDOM OF THE MINER AND ITS INFLUENCE ON WATER LAW IN LEGAL ESSAYS IN TRIBUTE TO ORRIN KIP McMURRAY (1935).

63. Colby, *op. cit.* (footnote 55), p. 370; COLBY, 36 CALIF. L. REV. 355-388 (1949); COLBY, *JOUR. OF MINES AND GEOL.*, vol. 46, No. 4, pp. 483-508 (October, 1950).

64. Personal observations of relic and other works near Mesa and Safford.

was found their way into and were specifically sanctioned by law, except for those affecting community irrigation systems known as acequias under Spanish and Mexican rule. These were and still are protected and recognized by later occupation authorities.⁶⁵

The Spanish and Mexican occupations brought water customs to the West, especially the Southwest, and continued to recognize some of the Indian customs. These customs not only concerned rights to water by reason of diversion and use under a policy of appropriation but extended to the formation of group water organizations.⁶⁶ There were also grants of water rights by the governments along with grants of lands, especially for towns known then as pueblos. The rights of these pueblos have been protected and extended by American law.⁶⁷

INFLUENCE OF THE EARLY UNITED STATES OCCUPATION:
MINING AND IRRIGATION

In 1847 the Mormon colonists reached Salt Lake Valley and started the practice of cropland irrigation during that year through direct diversion from streams. The next year gold was discovered in California. These two new developments attracted settlers, miners and fortune seekers from all over the world. We are told that the miners brought with them customs from other mining areas.⁶⁸

The gold and water were part of the public domain for the most

Arizona and Taos, New Mexico; Clough v. Wing, 2 Ariz. 371, 380, 17 Pac. 455-456 (1888); Hagerman Irr. Co. v. McMurray, 16 N. M. 172, 113 Pac. 103 (1911); SOILS AND MEN, Yearbook of Agriculture, USDA, p. 693 (1938); Hutchins, *op. cit.* (footnote 5), pp. 66-67; Report, Water Resources Law, *op. cit.* (footnote 6), p. 175. See also existing community system of irrigation at Isleta, New Mexico.

65. HUTCHINS, WELLS A., THE COMMUNITY ACEQUIA: ITS ORIGIN AND DEVELOPMENT, SOUTHWESTERN HISTORICAL QUARTERLY, vol. XXXI, No. 3, pp. 265-272 (Jan., 1928) with references therein. See also Act of Congress, March 3, 1851, 9 STAT. 631. No attempt is here made to consider recognition of Indian water rights on reservations.

66. U. S. v. Rio Grande Dam & Irr. Co., 9 N. M. 292, 51 Pac. 674 (1898); Bonillas Land & Cattle Co. v. St. David Coop. Comm. & Devel. Assoc., 11 Nev. 128, 89 Pac. 505 (1907); Maricopa County N. W. C. Dist. v. Southwest Cotton Co., 39 Ariz. 65, 4 Pac. (2d) 369 (1931); Tatterfield v. Putnam, 45 Nev. 156, 41 Pac. (2d) 228 (1935); Hutchins, *op. cit.* (footnote 60), pp. 263-267; U. S. v. Gerlach Live Stock Co., *supra*.

67. Felix v. Los Angeles, 58 Calif. 73, 79-80 (1881); Lux v. Haggin, 69 Calif. 255, 328-331, 4 Pac. 919 (1884); Vernon Irr. Co. v. Los Angeles, 106 Calif. 237, 250-251 (1895); Los Angeles v. Pomeroy, 124 Calif. 597, 639-640, 57 Pac. 585 (1899); Los Angeles v. Los Angeles Farm. & Mill. Co., 152 Calif. 603, 650-653, 93 Pac. 869, 1135 (1908); Los Angeles v. Hunter, 156 Calif. 603, 608-609, 105 Pac. 755 (1909); San Diego v. Cuyamaca Water Co., 209 Calif. 705, 116-132, 152-165, 287 Pac. 475, 287 Pac. 496 (1930).

68. Colby, *op. cit.* (footnote 55), p. 370; Report, Water Resources Law, *op. cit.* (footnote 6), p. 177; MEAD, IRRIGATION INSTITUTIONS, pp. 42-48.

part. Placer mining and irrigation required enormous quantities of water. These were artificial uses and required diversion and conveyance of water to lands not contiguous to the streams.

At that time there were no water or mining laws applicable to the public domain because Congress had not legislated on the matter. Other foreign laws were not considered applicable to the new developments. In these circumstances the miners were technical trespassers and the gold and water are said to have belonged to the government. Competition over mining claims and water supplies brought on serious conflicts. Rules of conduct had to be developed to reduce bloodshed and facilitate work. Here is where the "custom of the diggings" is said to have originated in which priority of discovery and diligent prosecution of development of claims became the custom and policy. The system of holding local meetings, formation of mining districts, and recording of claims, together with development of rules of conduct, are said to have led to the establishment of the doctrine of prior appropriation and beneficial use of water, and the administration of water rights, first on a county and later on a statewide basis.⁶⁹

From 1848 to 1850, when California was admitted to the Union, there were no territorial water laws in that area. Upon its admission, the new state adopted the common law of England as the rule of decision. In 1851 the legislature adopted the Civil Practices Act recognizing the custom of the miners as local rule of law. These recognized customs continued in effect in technical conflict with the adopted common law principles for many years. This presented the courts with new problems for here were two opposing systems of water law, one growing out of custom and the other being borrowed from other jurisdictions.⁷⁰ This did not reach decisive issue, however, until 1886.⁷¹

As each succeeding state on the Pacific Coast and in the Great Plains was admitted to the Union, it adopted the English common law as the rule of decision. The courts of these states and California held this to have included the common law of watercourses. The states formed in the Intermountain Plateau region, where water shortage conditions have always been extremely critical and the law

69. Colby, *op. cit.* (footnote 55), pp. 370-371; Ricketts, *op. cit.* (footnote 55), pp. 370-371; Hutchins, *op. cit.* (footnote 5), p. 67.

70. CALIF. CIVIL PRACTICE ACT, April 29, 1851, § 621, now § 748, CALIF. CIVIL PROCEDURES; Colby, *op. cit.* (footnote 55), pp. 370-371; U. S. v. Gerlach Live Stock Co., *supra*.

71. Lux v. Haggin, 69 Calif. 255, 10 Pac. 674 (1886). See summary of cases and subsequent cases reported by Hutchins, *op. cit.* (footnote 50), pp. 40-41 and U. S. v. Gerlach Live Stock Co., *supra*.

is primarily in Federal ownership, never did adopt the common law of watercourses or completely abrogate it as entirely inapplicable.⁷² This decision accorded with practical considerations and seems to have been a very sound one.

These two broad approaches to the establishment of a system of water rights resulted in two different concepts of the derivation of title, one called the California doctrine (dual system of riparian and appropriative rights) and the other called the Colorado doctrine (the single appropriative rights system).⁷³

The California concept rested on the theory of the right to appropriate water upon the public domain derived from the United States as owner, first by implication and later through confirmation by Congress. The Colorado concept rested upon the theory that these rights derived from the public ownership of the waters by the people of the states involved in which the United States had no greater proprietary capacity than a private landowner and particularly because the common law of watercourses was wholly unsuited to the semi-arid conditions. In other words, the California concept started with a Federal title from which riparian rights are deduced while the Colorado concept started with a rejection of riparian rights from which rejection of Federal title follows.⁷⁴ It would seem that if one recognizes, as Congress and the western States did, the custom of prior appropriation as suited to the West, then the existence of the riparian doctrine is thereby negated and the common law so modified; for, the two doctrines of water law are directly in opposition in respect of water use and its relationship to the land.

In 1866 and 1870 Congress acted to recognize and confirm the customs of prior appropriation by suitable legislation. This was followed by other important legislation which strengthened water rights customs as having sanction of law and also encouraged the development of water. These legislative pronouncements have been interpreted as having constituted recognition of pre-existing rights of possession and to have severed the water from the land in the public domain.⁷⁵ The right of the states to adopt whatever systems of water rights law they choose, so long as these do not violate con-

72. Hutchins, *op. cit.* (footnote 5), pp. 30-31, 38-39.

73. Wiel, *op. cit.* (footnote 23), pp. 173-228; Hutchins, *op. cit.* (footnote 5), p. 31.

74. Hutchins, *op. cit.* (footnote 5), p. 31.

75. Hutchins, *op. cit.* (footnote 5), pp. 36, 70-73; REPORT, PRESERVATION OF INTEGRITY OF STATE WATER LAWS, NAT. RECL. ASSOC., pp. 49-54 (1943); Colby, *op. cit.* (footnote 55), pp. 371-374; U. S. v. Gerlach Live Stock Co., *supra*.

stitutional provisions was also upheld.⁷⁶

Other western States as well as California recognized prior appropriation customs and also adopted statutes providing for state-wide administration, except in Montana where the county basis still exists.⁷⁷ A few states adopted the strict English common law for ground waters, some the doctrine of correlative rights, and others the appropriation doctrine. But the extent of adoption in each case varies with respect to well defined subterranean channels and percolating waters.⁷⁸ A decision of the Arizona Supreme Court rendered in January, 1952, purported to adopt the appropriation doctrine for percolating ground waters.⁷⁹ However, a rehearing has been granted and the decision thereon is still pending.

Determinations with respect to diffused surface waters in the West have been made mainly by the courts. It seems that the owner of the land on which they arise may make reasonable use of these waters but this is not an absolute right, as it appears to be in England, for downstream interests are involved. These interests have rights to stream flow which originates, in part at least, upon watershed lands.⁸⁰

In addition, the so-called California-doctrine States further modified the riparian doctrine. These changes are briefly summarized hereafter because of their bearing upon problems involved in shifting from a riparian system to a dual system and finally to the appropriation system in large part. Since this seems to be a broad but slowly developing trend, it may have implications for some of the eastern States as their population, industry and agriculture expand to anticipated levels, and as competition for water becomes more acute.

EXTENSION OF THE SYSTEM OF PRIOR APPROPRIATION AND RESTRICTION OF THE COMMON LAW SYSTEM IN THE WEST

The adoption of the two divergent systems of water rights by the different groups of states, above referred to, did not settle the problems of Western water development and use, by any means. The two systems did open the way for and aided materially the establishment of title to waters, as the vast majority of cases indicate.

The major problems of reconciling conflicting uses and balancing supply of and demand for water presented difficult issues for the

76. Hutchins, *op. cit.* (footnote 5), p. 34 with cases cited in footnote 3 thereto.

77. Wiel, *op. cit.* (footnote 23), pp. 177-180; Hutchins, *op. cit.* (footnote 5), pp. 31, 68, 74-107.

78. Hutchins, *op. cit.* (footnote 5), pp. 147-151; Part III, 182-264.

79. *Bristor v. Cheatham, supra.*

80. Hutchins, *op. cit.* (footnote 5), pp. 110-145.

courts and the legislatures. Whereas, in the beginning of the United States occupation, mining in upstream areas was the dominant enterprise in many watersheds, use for production of hay and crops of all kinds in the valleys below became increasingly important with industrial expansion and the consequent need for food and fiber. These aspects were also reflected in increased use of water by municipalities.⁸¹

With the needs for water outrunning the supply in recent years, the question of conservation seems to have been emphasized more than the question of establishment of title to waters. As a result, the decisions reflect greater emphasis upon the rule of reasonable beneficial use. But the judicial standard of what constitutes reasonable beneficial use for irrigation seems to have lagged far behind that of the better scientific practices now being carried out in soil conservation districts. As these practices become more widely accepted in local areas, it is to be hoped that the courts will thereby find an adequate basis for emphasizing judicial standards more nearly approaching scientific standards.

The influence of and changes which took place in the two systems of law may be seen by review of decisions in a few of the states which made up the two broad groups. Though their divergent concepts were very important when originally developed, there now seems to be a tendency among all western States for gradually developing one broad theory of water law directed toward development and beneficial use.⁸²

INFLUENCE OF AND CHANGES WHICH DEVELOPED IN THE CALIFORNIA CONCEPT OF WATER RIGHTS

The practice of hydraulic gold mining caused so much damage to lower lying areas that it was nearly put out of business after the famous *Debris cases*. But the canals which had supplied water for this activity and then ceased to be used for some time were later found to be suitable in providing water for irrigation and power purposes. The mining, irrigation, power and municipal uses were often appropriate in nature but not entirely so; for, some were considered riparian uses. These and the lower valley uses, which had become established during and shortly after the *Debris cases*, later came into conflict.⁸³ Subsequently there were conflicts between the irrigation, power and municipal uses.⁸⁴

81. Wiel, *op. cit.* (footnote 3), p. 253.

82. Hutchins, *op. cit.* (footnote 5), pp. 78-80. Note: Most western States have dedicated unappropriated waters of the state to public purposes.

83. Wiel, *op. cit.* (footnote 3), pp. 254, 260, 266, 268.

84. See cases *op. cit.* (footnote 62); *Holt v. Cheyenne*, 22 Wyo. 212, 137 Pac.

The first decision in California in a major controversy between claimants of riparian rights on the one hand and of appropriative rights on the other came in 1886.⁸⁵ This upheld the riparian rights of the landowners using flood waters for private meadow lands against prior appropriators using water for irrigation. This decision in effect seems to have confined prior appropriation to public lands and recognized common law rights for private lands. Here is where the customs of the miners recognized by Congress and the legislature came up against the common law adopted when the state was admitted to the Union. The ruling in this case profoundly influenced California water law, and its effect is said to have spread to other California-doctrine States.⁸⁶

The dominant position of riparian rights, requiring the maintenance of the natural flow of streams, became so restrictive of development of surplus stream flow that, following upon its reaffirmation in a subsequent major decision in 1926, and in spite of the possibility of alternative physical and financial solutions which might have been accepted by the court,⁸⁷ the state turned to constitutional amendment. All this harks back to the adoption of the English common law as rule of decision.⁸⁸

The amendment adopted in 1928 not only limited riparian rights to reasonable use by reasonable methods of diversion but affected all other water rights too.⁸⁹ It was subsequently upheld as not subject to attack under the Federal Constitution.⁹⁰ And though injunction no longer lies in such situations, the right remains fully compensable.⁹¹ Generally speaking, the amendment seems to have restricted riparian as well as other rights in such a way as to open up for development and use by appropriative and other means a considerable portion of the surplus reserves of stream flow and of ground water basins too.

876 (1914); *Meridian v. San Francisco*, 13 Calif. (2d) 424, 90 Pac. (2d) 537 (1939); *Denver v. Sheriff*, 105 Colo. 193, 96 Pac. (2d) 836 (1939); *Beus v. Soda Springs*, 62 Idaho 1, 107 Pac. (2d) 151 (1940).

85. *Lux v. Haggin*, 69 Calif. 255, 10 Pac. 674 (1886); *Wiel, op. cit.* (footnote 3), pp. 256-259; *Hutchins, op. cit.* (footnote 5), p. 45.

86. *Wiel, op. cit.* (footnote 3), p. 259.

87. *Herminghaus v. Southern Cal. Edison Co.*, 200 Calif. 81, 252 Pac. 667 (1926); *Wiel, op. cit.* (footnote 3), pp. 268, 269, 274; *Hutchins, op. cit.* (footnote 5), p. 45. Note: This ruling included all annual flood flows as natural flows.

88. SHAW, LUCIEN, *THE DEVELOPMENT OF THE LAW OF WATERS IN THE WEST*, 10 CALIF. L. REV. 443, 455; 189 Calif. 779, 791.

89. CALIF. CONST., Art. XIV, § 3; *Peabody v. City of Vallejo*, 2 Calif. (2d) 351, 366, 40 Pac. (2d) 486, 490 (1935); *Wiel, op. cit.* (footnote 3), pp. 274-294; *Hutchins, op. cit.* (footnote 5), p. 45.

90. *Peabody v. Vallejo, supra*; *Hutchins, op. cit.* (footnote 5), p. 45 with footnote citations.

91. *U. S. v. Gerlach Live Stock Co., supra*.

However, it left riparian and overlying rights (served by ground water) in a dominant position but not to the extent which previously existed.⁹²

The developments in ground water law, aside from that already indicated, seem to have paralleled the developments in the law of watercourses to some extent at least. Following adoption of the common law as rule of decision, the courts established in 1871 the rule of absolute ownership.⁹³ This was replaced in 1903 by the rule of correlative rights, one effect of which was to protect local users from exportations of water to distant points of use. Surface waters and ground waters were recognized as one source of supply where they were shown to be interconnected.⁹⁴ But exportation was later permitted for surplus waters.⁹⁵ It was also held that rights in ground waters may be acquired by prescription though the landowner, upon timely action, may have a declaratory decree to protect his right.⁹⁶ Recently the rule of prescription has been extended to the new concept of mutual prescription.⁹⁷

INFLUENCE OF AND CHANGES WHICH TOOK PLACE IN OREGON*

As in California, the existence of the riparian law was acknowledged early by the Oregon courts.⁹⁸ But the use of water for irrigation was permitted along with the domestic and livestock uses originally allowed.⁹⁹ These rights were held to attach upon acquisition of title to public domain.¹⁰⁰ But such rights could be lost by prescription.¹⁰¹

However, this common law trend of decisions was early affected by the Congressional acts, previously referred to, recognizing rights of appropriation on public domain.¹⁰² This legislation was construed

92. *Meridian v. San Francisco, supra*; *Hutchins, op. cit.* (footnote 5), pp. 45-46; Report, Water Resources Law, *op. cit.* (footnote 6), p. 717.

93. *Hanson v. McCue*, 42 Calif. 303, 10 AM. REP. 299 (1871); *Hutchins, op. cit.* (footnote 5), p. 159.

94. *Katz v. Walkinshaw*, 141 Calif. 116, 128-137, 70 Pac. 663 (1902), 74 Pac. 766 (1903).

95. *Burr v. Maclay Rancho Water Co.*, 154 Calif. 428, 98 Pac. 260 (1908).

96. *Hutchins, op. cit.* (footnote 5), p. 160.

97. *Pasedena v. Alhambra*, 33 Calif. (2d) 908, 925-926, 928-933, 207 Pac. (2d) 17 (1949).

*Note: The following material on Oregon and Kansas is based largely upon a recent summary, not as yet published, prepared for the writer by Wells A. Hutchins.

98. *Taylor v. Welch*, 6 Oreg. 198, 200 (1876).

99. *Coffman v. Robbins*, 8 Oreg. 278, 282 (1880).

100. *Norwood v. Eastern Oregon Land Co.*, 112 Oreg. 106, 111, 227 Pac. 1111 (1924); *Faulk v. Cooke*, 19 Oreg. 455, 464, 26 Pac. 662 (1890).

101. *Norwood v. Eastern Oregon Land Co., supra*.

102. 14 STAT. L. 353, § 9; U. S. REV. STATS., § 2339 (July 26, 1866);

15 STAT. 218; U. S. REV. STAT., § 2340 (July 9, 1870).

by the Oregon Supreme Court to permit appropriation of waters on the public domain as against the common law rule regarding continuous natural flow.¹⁰³ The Court indicated that riparian and appropriative rights could exist in the same locality,¹⁰⁴ but almost at the same time indicated that these rights were incompatible.¹⁰⁵ The court began to encounter difficulties, however, after recognizing and then attempting to apportion water among riparian proprietors.¹⁰⁶

The court also developed another approach to the problem by holding that a water user must elect to stand on a riparian or an appropriative right.¹⁰⁷ And once one or the other is elected, the user thereby waives the other alternative.¹⁰⁸ This attempt at reconciling the two opposing theories of water rights seems to have had considerable effect upon the water law of Oregon.

About this time the court had occasion to interpret the Desert Land Act of 1877,¹⁰⁹ together with the related acts of 1866 and 1870, to permit appropriation upon the public domain of surplus waters of non-navigable streams, subject to established rights; and to thereby abrogate the common law doctrine, except for domestic uses.¹¹⁰ This was upheld by the U. S. Supreme Court.¹¹¹

Then in 1909 the "Water Code" further limited vested riparian rights to the extent of actual application of water to beneficial use prior to the passage of the statute or actual application to beneficial use within a reasonable time thereafter by means of works then under construction. In either case the limitation applied to situations which existed prior to the statute. It thereby cut off future uses which had not been initiated prior to the establishment of the new policy. It also provided an exclusive procedure for the adjudication of these rights.¹¹² This code, including the new definitions contained therein,

103. *Hough v. Porter*, 51 Oreg. 318, 383-386, 95 Pac. 732 (1908); 98 Pac. 1083 (1909); 102 Pac. 728 (1909).

104. *Williams v. Altnow*, 51 Oreg. 275, 300, 95 Pac. 200, 97 Pac. 539 (1908).

105. *In re Sucker Creek*, 83 Oreg. 228, 234, 163 Pac. 430 (1917).

106. *Jones v. Conn*, 39 Oreg. 30, 37, 46, 64 Pac. 855, 65 Pac. 1068 (1901); *Hough v. Porter*, *supra*; *Caviness v. La Grande Irr. Co.*, 60 Oreg. 410, 421-422, 119 Pac. 731 (1911); *In re Sucker Creek*, *supra*.

107. *Low v. Schaffer*, 24 Oreg. 239, 246, 33 Pac. 678 (1893); *Williams v. Altnow*, *supra*; *State ex rel. Pacific Live Stock Co. v. Davis*, 116 Oreg. 232, 236, 240 Pac. 882 (1925).

108. *Davis v. Chamberlain*, 51 Oreg. 304, 311, 98 Pac. 154 (1908); *In re Sucker Creek*, *supra*.

109. 19 STAT. L. 377 (March 3, 1877).

110. *Hough v. Porter*, *supra*.

111. *California-Oregon Power Co. v. Beaver Portland Cement Co.*, 295 U.S. 142, 160-163 (1935); *Hedges v. Riddle*, 63 Oreg. 257, 259-260, 127 Pac. 548 (1912).

112. OREGON LAWS 1909, ch. 216; OREG. COMP. LAWS ANN., §§ 116-41, 116-402 (1940).

was upheld by the Oregon Supreme Court as proper under the police power of the state.¹¹³ It was also upheld in the Federal Circuit Court of Appeals.¹¹⁴ The decree was affirmed by the U. S. Supreme Court but upon somewhat different grounds.¹¹⁵

Through the foregoing and other processes, it is clear that in Oregon the effect of court decisions and acts of the legislature was to reduce progressively the effectiveness of the common law doctrine and to increase the effectiveness of the doctrine of prior appropriation. This appears to have come about by reason of necessity. As a consequence the old doctrine has been reduced to the point where it has ceased to be of much importance.

CHANGES IN KANSAS

The changes which took place in Kansas were quite similar to those in Oregon but much more abrupt and this in very recent years. The common law doctrine was held to apply here by reason of adoption of the English common law when Kansas was still a territory.¹¹⁶ Modification of the strict riparian principles was permitted, however.¹¹⁷ It was upheld as late as 1944 as against an appropriator attempting to acquire water rights under the statutory procedure.¹¹⁸ And even in 1949, prior to the interpretation of the new 1945 statute, the court discussed these same principles.¹¹⁹ It should be kept in mind, in these connections, as indicated previously, that the Great Plains states, though originally public domain, were rapidly taken up as homesteads and state school sections or railroad lands. Thus, whereas in the far West much land remained and still is part of the public domain, this situation has not obtained in Kansas.

Faced with this limitation on the development and beneficial use of water, the legislature adopted a new appropriation statute after others had been found to be ineffective.¹²⁰ This new act strengthened

113. *In re Willow Creek*, 740 Oreg. 592, 610-620, 627-628, 144 Pac. 505 (1914), 146 Pac. 475 (1915); *In re Hood River*, 114 Oreg. 112, 173-182, 227 Pac. 1065 (1924).

114. *California-Oregon Power Co. v. Beaver Portland Cement Co.*, 73 Fed. (2d) 555 (C.C.A. 9th, 1934).

115. *California-Oregon Power Co. v. Beaver Portland Cement Co.*, *supra*.

116. *Shamleffer v. Council Grove Peerless Mill Co.*, 18 Kans. 24, 31-33 (1877); *Frizell v. Bindley*, 144 Kans. 84, 91-92, 58 Pac. (2d) 95 (1936).

117. *Emporia v. Soden*, 25 Kans. 588, 606 (1881).

118. *State ex rel. Peterson v. State Board of Agriculture*, 158 Kans. 603, 149 Pac. (2d) 604 (1944).

119. *Heise v. Schulz*, 167 Kans. 34, 41-43, 204 Pac. (2d) 706 (1949).

120. KANS. LAWS 1886, ch. 115; KANS. LAWS 1941, ch. 261; KANS. LAWS 1947, ch. 172. See *State ex rel. Peterson v. State Board of Agriculture*, *supra*; KANS. LAWS 1945, ch. 390, GEN. STATS. 1949, §§ 82a-701 to 82a-722. See also

the appropriation doctrine and reduced the advantage of the location of lands contiguous to streams. The experience in Oregon and Nebraska was drawn upon heavily in accomplishing this task. The statute was upheld by the Kansas Supreme Court.¹²¹

Kansas appears to have adopted the strict common law rule in respect to ground water but later modified this.¹²² As late as 1944, it was held to prevent appropriation of ground waters under the statute.¹²³ This situation was shortly thereafter cured by the new appropriation statute.¹²⁴

INFLUENCE OF AND CHANGES WHICH DEVELOPED IN THE COLORADO CONCEPT OF WATER RIGHTS

In 1872 the Territorial Supreme Court of Colorado enlarged the concept of prior appropriation to cover waters upon all lands in the area, public or private.¹²⁵ This was reiterated in 1882 by the State Supreme Court, after statehood was attained in 1876.¹²⁶ This trend seems to have spread among the other states in this group. In view of the rather uniform approach for running streams adopted by this group of states, only a brief statement will be made in respect of ground waters for three representative states, because changes are well summarized elsewhere.¹²⁷

In Utah all waters, both above and under the ground, are declared to be public waters available for appropriation, subject to existing rights. The appropriation doctrine has existed from the beginning, though the common law doctrine was not declared to be repudiated until 1891. The statutory method is the exclusive method by which the appropriation of water is now made.¹²⁸

The situation in Arizona has been similar to other Colorado doctrine states except for percolating ground waters. These were con-

Report to Governor of Kansas, *op. cit.* (footnote 16), p. 79, prepared in connection with development of recommendations to the state legislature for the 1945 statute.

121. State *ex rel.* Emery v. Knapp, 167 Kans. 546, 555-556, 207 Pac. (2d) 440 (1949); Report to Governor of Kansas, *op. cit.* (footnote 16), pp. 25-31.

122. Emporia v. Soden, *supra*; Jobling v. Tuttle, 75 Kans. 351, 360, 89 Pac. 699 (1907); Gilmore v. Royal Salt Co., 84 Kans. 729, 731, 115 Pac. 54 (1911).

123. State *ex rel.* Peterson v. State Board of Agriculture, *supra*.

124. KANS. LAWS 1945, ch. 390; GEN. STATS. SUPP. 1947, ch. 82a, art. 7.

125. Yunker v. Nichols, 1 Colo. 551 (1872).

126. Coffin v. Left Hand Ditch Co., 6 Colo. 443 (1882).

127. Wiel, *op. cit.* (footnote 3), p. 258; Hutchins, *op. cit.* (footnote 5), pp. 74-107.

128. See Water Resources Law, Appendix B, *op. cit.* (footnote 6), pp. 76-770 (1950).

sidered the property of land owners in 1906.¹²⁹ This year, 1952, the Arizona Supreme Court stated that the appropriation doctrine applies to these as well as other ground waters.¹³⁰ However, a rehearing has been granted and decision thereon is pending.

In New Mexico, the common law of riparian rights was early held not to be in force and the appropriation doctrine was held to have prevailed by custom, judicial decision and necessity.¹³¹ This state prevailed in ground water control and its history is important from constitutional and administrative standpoints.¹³²

129. Howard v. Perrin, 8 Ariz. 347, 353-354, 76 Pac. 460 (1904); Howard v. Perrin, 200 U. S. 71 (1906).

130. Bristol v. Cheattam, *supra*.

131. Trambley v. Luteran, 6 N. Mex. 15, 25, 27 Pac. 312 (1891); U. S. v. Las Grande Dam & Irr. Co., 9 N. Mex. 292, 306, 51 Pac. 674 (1898); Albuquerque Land & Irr. Co. v. Gutierrez, 10 N. Mex. 177, 236-237, 61 Pac. 357 (1900); Snow v. Abalos, 18 N. Mex. 681, 693, 140 Pac. 1044 (1914).

132. See, Water Resources Law, Appendix B, *op. cit.* (footnote 6), pp. 744-750.

RIGHTS OF THE STATES IN THEIR NATURAL RESOURCES PARTICULARLY AS APPLIED TO WATER

DUDLEY WARREN WOODBRIDGE*

SOURCE OF RIGHTS OF STATES

The origin of the rights of the states to their natural resources is nowhere better stated than by Mr. Justice Stone in the case of *Commonwealth of Massachusetts v. State of New York*:¹

"The English possessions in America were claimed by right of discovery. The rights of property and dominion in the lands discovered by those acting under royal authority were held to vest in the crown, which under the principles of the British Constitution was deemed to hold them as a part of the public domain for the benefit of the nation. . . . As a result of the Revolution the people of each state became sovereign, and in that capacity acquired the rights of the crown in the public domain . . ."

The same principle was applied with respect to new states formed out of the territory of the original thirteen states.² However, title to lands ceded to or purchased by the United States is vested in the United States subject to treaty provisions and subsequent grants. The state is also the owner of all things *ferae naturae*. And in the well known case of *Georgia v. Tennessee Copper Co.*,³ in which the State of Georgia sought to enjoin defendant Copper Companies from discharging noxious gases from their works in Tennessee over the lands in Georgia to the great injury thereof the Supreme Court of the United States, speaking through Mr. Justice Holmes, said:

"This is a suit by a State for an injury to it in its capacity of quasi-sovereign. In that capacity the State has an interest independent of and behind the titles of its citizens, in all the earth and air within its domain."

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1. 271 U. S. 65, 79 (1925).
2. *Pollard v. Hagan*, 3 How. 212 (U. S. 1844).
3. 206 U. S. 230, 237 (1906).

OWNERSHIP OF TIDELANDS

In a series of cases culminating in *United States v. State of Louisiana*,⁴ the Supreme Court of the United States has held that no state has any title to the natural resources under tidal waters. (No, not even Texas.)⁵ The Court speaking through Mr. Justice Douglas stated:

"The claim to our three mile belt was first asserted by the national government. Protection and control of the area are indeed functions of national external sovereignty. The marginal sea is a national, not a state concern. National interests, national responsibilities, national concerns are involved. The problems of commerce, national defense, relations with other powers, war and peace focus there. National rights must therefore be paramount in that area."⁶

OWNERSHIP OF CLOUDS

There has been much speculation as to who owns the clouds. Until recent years this speculation has been almost entirely academic, but since the advent of aviation and artificially induced rainfall the question has already become of practical importance and will undoubtedly increase in importance as time moves on. The private owner of the surface has some rights, at least as far up as is needed by him for the quiet enjoyment of the surface and structures on the surface. In fact The Uniform Aeronautics Act even states:⁷

"The ownership of the space above the lands and waters of this State is declared to be vested in the several owners of the surface beneath, subject to the right of flight described in Section 4."

While this Act has been withdrawn⁸ from the active list of recommended uniform acts by the Commission on Uniform State Laws it has been adopted by some twenty-one states.

As clouds are *ferae naturae*, fugitive in nature, and exist over sovereign states, it is arguable that the states have a qualified ownership.

Since other states of the Union are affected by another's use of the clouds and since our national defense and our interstate com-

4. 339 U. S. 699 (1950).
5. *United States v. Texas*, 339 U. S. 707 (1950).
6. 339 U. S. 699, 704 (1950).
7. UNIFORM AERONAUTICS ACT, § 3, 11 U. L. A. 160 (1938).
8. 11 U. L. A. (1949 Cumulative Annual Pocket Part, p. 11).

merce and our navigable streams are vitally connected with the atmosphere it is arguable that the United States also has rights. Mr. Gus O. Hatfield in discussing legal problems raised by artificial rainmaking concludes a note in the *Vanderbilt Law Review* as follows:

"On the other hand, property interests and individual rights must be protected against unwarranted invasions by the negligent or capricious rain-maker. The only feasible solution appears to be some form of governmental regulation. It is doubtful that completely successful controls could be imposed at the state level, since interstate problems are certain to arise whenever weather control is attempted on any substantial scale. All of the problems which exist, especially the property aspect will be duplicated at both interstate and international levels. The effects of an artificially induced rainstorm cannot be confined to political boundaries. It therefore appears likely that in the near future it will be necessary to regulate rainmaking, not only by rules of nation-wide application, but also by international treaty."

STATE OWNERSHIP OF WATERS: INTRODUCTION

There are various classifications of waters resulting from precipitation, but for the purposes of this paper I will use the following: (1) Waters flowing either on the surface or under the surface in a reasonably ascertainable well defined channel; (2) Surface waters not flowing in a reasonably well defined channel and not collected in natural ponds and lakes; (3) Underground waters not flowing in a well defined channel commonly called percolating waters and artesian waters.

Waters flowing on the surface in a reasonably well defined channel are either navigable or non-navigable though some writers have still a third kind, namely floatable but not navigable.

What are the rights of the states in each of these?

RIGHTS OF STATES IN SURFACE WATERS FLOWING IN WELL DEFINED CHANNELS: GENERAL PRINCIPLES

The waters of navigable streams and the beds of such streams are the property of the states subject however to certain rights of the federal government and of riparian owners. The prevailing test of navigability in the United States is one of fact. A stream is navigable when it is used, or is susceptible of being used, in its ordinary

9. 4 VANDERBILT LAW REV. 332, 337; See also BALL, SHAPING THE LAW OF WATER CONTROL, 58 YALE L. J.

meditation, as a highway for commerce, over which trade and travel are or may be conducted in the customary modes of trade and travel on water.¹⁰

It is equally well settled that the states do not own the waters or beds of non-navigable streams. Thus in a Virginia case, *Garden Club of Virginia v. Virginia Public Service Company*,¹¹ it was held that a statute giving certain jurisdiction of the "waters of the state" to the State Corporation Commission had no application to the waters of a non-navigable stream, and hence in that case permission of the State Corporation Commission was not a prerequisite for the construction of a dam sixty-three feet high and four hundred fifty feet long near Goshen Pass in that State.

SAME: RIGHTS OF THE UNITED STATES — GENERAL

The Report of the President's Water Resources Policy Commission sets seven major limitations of the states on their powers of control of and use of their waters.¹² It is certain that some of these will be hotly denied by many, but at least they are worthy of our consideration.

SAME: COMMERCE POWER

The most important of these limitations is that of the commerce power. Where a river is used for the transportation of goods in interstate commerce even though the river is an intrastate one (such as the James River) it is a public highway. Mr. Chief Justice Marshall as early as 1824 in *Gibbons v. Ogden*,¹³ said:

"The power of Congress . . . comprehends navigation within the limits of every state in the Union, so far as that navigation may be, in any manner, connected with 'commerce with foreign nations, or among the several States, or with the Indian tribes'."

And in *Gilman v. Philadelphia*,¹⁴ the Supreme Court said:

"Commerce includes navigation. The power to regulate commerce comprehends the control for that purpose, and to the extent necessary, of all the navigable waters of the United States which are accessible from a State other than those in which

10. See *United States v. Oregon*, 295 U. S. 1 (1935).

11. 153 Va. 659, 151 S. E. 161 (1930).

12. Vol. 3, WATER RESOURCES LAW, pp. 5 to 72.

13. 9 WHEAT. 1, 197 (U. S. 1824).

14. 3 WALL. 713, 724 (U. S. 1865).

they lie. For this purpose they are the public property of the nation, and subject to all requisite legislation by Congress."

But generally, except for tidal waters there would be no navigable streams but for the convergence of innumerable non-navigable ones. As control of the non-navigable streams that affect the navigability of navigable streams is or may be necessary for the control of the latter Congress has jurisdiction over the former to the extent needed for the protection of the latter.¹⁵

Ramifications of this right of the United States over the navigable waters of the country include flood control projects and the development and disposition of electric power for the exercise of the commerce authority by Congress is not invalidated because it elects to serve purposes in addition to navigation, even if such other purposes would not alone justify an exercise of Congressional power.¹⁶

Moreover the Federal Power Act¹⁷ provides for the issuance of licenses to nonfederal agencies for the development of water power on streams under its jurisdiction. Any private company operating a power development prior to the passage of that Act took subject to the powers of Congress and may be lawfully required under that Act to accept a license with all its obligations and conditions.¹⁸

SAME: FEDERAL PROPRIETARY POWER

Another possible limitation on the rights of the state is the proprietary power of the federal government. This power exists in a number of phases. Article IV, Section 3, Clause II of the United States Constitution which deals with the admission of new states reads in part:

"The Congress shall have power to dispose of and make all needful rules and regulations respecting the territory or other property belonging to the United States . . ."

And in *United States v. San Francisco*,¹⁹ the United States Supreme Court stated:

"The power over the public land thus entrusted to Congress is without limitations."

15. See *United States v. Rio Grande Irrigation Co.*, 174 U. S. 690 (1899) and *Oklahoma v. Atkinson*, 313 U. S. 508 (1941).

16. See *Arizona v. California*, 283 U. S. 423, 456 (1931).

17. 41 STAT. 1063, 49 STAT. 838, as amended, 16 U. S. C. 791a-825r.

18. *Pennsylvania Water & Power Co. v. Federal Power Commission*, 123 F. 2d 155 (C. A. D. C. 1941), cert. denied 315 U. S. 806 (1942).

19. 310 U. S. 16, 29 (1939).

In *Light v. United States*,²⁰ the same court said:

"And it is not for the courts to say how that trust shall be administered. That is for Congress to determine."

And in *Canfield v. United States*,²¹ the Supreme Court states:

"While we do not undertake to say that Congress has the unlimited power to legislate against nuisances within a State, which it would have within a Territory, we do not think the admission of a Territory as a State deprives it of the power of legislating for the protection of the public lands though it may thereby involve the exercise of what is ordinarily known as the police power, so long as such power is directed solely to its own protection. A different rule would place the public domain of the United States completely at the mercy of state legislation."

The United States has acquired in one way or another vast tracts of lands. In the ownership of these lands it is not an ordinary owner, or even an ordinary riparian owner, for a state may not by legislation without the consent of Congress "destroy the right of the United States, as the owner of lands bordering on a stream, to the continued flow of its waters; so far at least as may be necessary for the beneficial uses of the government property".²²

When the United States acquires land from a state by purchase with consent of the state the latter can with the consent of the United States reserve certain specified rights of sovereignty,²³ but when the land is acquired without or despite the consent of the state the United States is not subject to any jurisdictional control by the state which would impair or destroy the effective use for the purpose for which the land was acquired.²⁴

SAME: WAR POWER

Under the war power²⁵ and the 1916 National Defense Act,²⁶ Congress authorized the President to cause an investigation to be made to determine the best means for the production of nitrates and other products for munitions of war. Out of this legislation there

20. 220 U. S. 523, 537 (1911).

21. 167 U. S. 518, 525 (1897).

22. *Kansas v. Colorado*, 206 U. S. 46 (1907).

23. See *Collins v. Yosemite Park & Curry Co.*, (taxing jurisdiction) 304 U. S. 518, 530 (1938).

24. *Fort Leavenworth Railroad Co. v. Lowe*, 114 U. S. 525, 539 (1885).

25. U. S. CONST. Art. I, § 8, cls. 1, 11; Art. I, § 9, cl. 7.

26. 39 STAT. 166, 50 U. S. C. A. 79.

eventually came the Wilson Dam at Muscle Shoals on the Tennessee River and finally the whole Tennessee Valley Authority Act.

But this is fast becoming the atomic age, and Congress knows that fact. By statutes passed August 1, 1946²⁷ there are: (1) A declaration of policy to the effect that there be established "a program for Government control of the production, ownership, and use of fissionable material to assure the common defense and security and to insure the broadest possible exploitation of the field;"²⁸ (2) With two unimportant exceptions the Atomic Energy Commission, as agent of the United States, shall be the exclusive owner of all facilities for the production of fissionable material;²⁹ (3) "All right, title, and interest within or under the jurisdiction of the United States, in or to any fissionable material, now or hereafter produced, shall be the property of the Commission;"³⁰ and, "no person shall have any title in or to any fissionable material;"³¹ (4) "As used in this chapter the term 'source material' means uranium, thorium or any other material which is determined by the Commission with the approval of the President, to be peculiarly essential to the production of fissionable materials;"³² (5) "The Commission is authorized and directed to purchase, take, requisition, condemn, or otherwise acquire, supplies of source materials or any interest in real property containing deposits of source materials to the extent it deems necessary to effectuate the provisions of this chapter."³³

I might put in parenthetically that it would not be too surprising if within the foreseeable future atomic power will be available for the large scale purification of ocean water and for the pumping of it and other waters wherever we desire for all our manifold uses. But be that as it may, I believe that it is safe to predict that the states as such will have little or no control over atomic energy and the natural resources required for its utilization.

SAME: GENERAL WELFARE CLAUSE

Further Congress is expressly empowered to levy taxes for the general welfare:

"The Congress shall have power to lay and collect taxes . . .

27. 60 STAT. 755, 42 U. S. C. A. 1801 *et seq.*

28. *Id.* § 1801 (4).

29. *Id.* § 1804 (c) (1).

30. *Id.* § 1805 (a) (2).

31. *Ibid.*

32. *Id.* § 1805 (b) (1).

33. *Id.* § 1805 (b) (5).

and provide for the common defense and general welfare of the United States."³⁴

While the proper construction of this clause is controversial to say the least the Supreme Court of the United States has gone so far as to assert:³⁵

"Thus the power of Congress to promote the general welfare through large scale projects for reclamation, irrigation and other internal improvements, is now as clear and ample as its power to accomplish the same results indirectly through resort to strained interpretation of the power of navigation."

The only certain limitation appears to be that such power should be exercised for the common benefit as distinguished from some mere local purpose.³⁶ Query: What is a mere local purpose? We have grown to be so interdependent that what is done in one locality frequently affects in one way or another what is done in many other places.

SAME: DOCTRINE OF EQUITABLE APPORTIONMENT

The rights of the states over their water courses may be further limited in some cases by the doctrine of equitable apportionment. This doctrine has been chiefly applied in the western States to interstate streams to insure to the inhabitants of each state involved a fair share of the benefits from the use of such waters. This result should be attained in so far as possible without quibbling over formulas.³⁷

SAME: INTERSTATE COMPACTS

Congress in 1911 authorized in advance the entering into by the states of interstate compacts "for the purpose of conserving the forests and the water supply of the States."³⁸ To date these compacts have been used chiefly to apportion the waters of interstate streams, and to control pollution and floods. The action taken thereunder is binding upon the citizens of each state and all water claimants, even where the State had granted the water rights before it had entered into the compact.³⁹

34. U. S. CONST. Art. I, § 8, cl. 1.

35. *United States v. Gerlach Live Stock Co.*, 339 U. S. 725, 738 (1950).

36. *Ibid.*

37. *Kansas v. Colorado*, 206 U. S. 46 (1907).

38. 36 STAT. 961, 16 U. S. C. 552.

39. *Hinderlider v. La Plata Co.*, 304 U. S. 92, 106 (1938).

SAME: RIGHTS OF RIPARIAN OWNERS

The right of the state to its navigable waters is also subject to certain rights of riparian owners which the state can take away by eminent domain proceedings unless, of course, the United States is the riparian owner. Each such owner has a right of access to the channel, and the right to make a reasonable use of the water as it flows by and in connection with riparian land so long as he does not unreasonably pollute or divert it. The common law maxim is "Water should flow as they have been accustomed to flow". When there is a great surplus of water for everyone no harm is done by such a rule but when there is an acute shortage of water what rule could be more ridiculous? In effect such a rule would mean, "Since there is not enough water for all no one can use in substantial quantities what there is — and cursed be the non-riparian owners!"

SAME: SUMMARY

Thus while the states own their navigable waters this ownership is subject to the commerce power, the war power, the proprietary property rights, the treaty making power, the general welfare power of the federal government, the doctrine of equitable apportionment where the stream is an interstate one, to any interstate compacts that have been made as well as the rights of riparian owners.

THE JUS PUBLICUM AND THE JUS PRIVATUM

It is also said that the ownership of the states' navigable waters has a double aspect — the *jus publicum* or public right and the *jus privatum* or private right. To the extent that a state owns its navigable waters and the beds of streams in its private right it may alienate the same as any owner, as for example a lease of a part of the bed of a drowned river bottom for the propagation of oysters. But to the extent that a state owns in its public right it owns in trust for all its citizens and can grant no monopoly. These principles were brought out strongly in the case of *Commonwealth v. Newport News*,⁴⁰ in which it was held that the legislature of the Commonwealth of Virginia had the power to authorize the City of Newport News to discharge its untreated sewage into the waters of Hampton Roads as long as no public nuisance resulted and navigation was not interfered with despite the fact that such pollution might contaminate nearby oyster beds and interfere with established recreational use

40. 158 Va. 521, 164 S. E. 689 (1932).

of the tidal waters. The Commonwealth as owner in its private right could decide what use of that right best served the public interest, and any lessee of river bottoms for oyster culture took subject to such possibilities.

PERCOLATING WATERS: RIGHTS OF THE STATES

The State is vitally interested in the maintenance of the water table, for on it depends the capacity of wells and springs and to a great extent the production of all agricultural products. The water table in turn for the most part is dependent on percolating waters for its maintenance, *i. e.* that portion of the total rainfall that sinks into the ground rather than runs off or evaporates. These waters are in the very nature of things well nigh impossible of ownership until actually reduced to possession so that while they are in one sense the property of the state in much the same way as are wild animals this ownership (if it may be called such) is quite restricted. But it is sufficient to permit regulation as to such matters as waste, interference for spite only, and pollution.

Another type of percolating water is known as artesian water. It has its origin for the most part in the mountains where as a result of tilted strata the waters get under bed rock and gradually work their way to the seas or other outlets. These waters are frequently under pressure and in such a situation when the lower strata are tapped these waters flow naturally to the surface. The principal problem here is to prevent waste for experience has shown that an uncapped flowing well in one locality may affect the supply of quite distant localities.

OWNERSHIP OF BEDS OF STREAMS

In the case of non-navigable waters the ownership of the beds of the streams is in the adjoining landowners and not in the state. But in the case of navigable streams the ownership of the beds is in the state. Whether this state ownership extends to the ordinary low water mark or to ordinary high water mark is a question in much dispute. It has been held in Florida⁴¹ and in South Carolina⁴² that the State owns to the high water mark. But according to some writers⁴³ the better view, albeit a minority one, is that public ownership extends only to low water mark, and such is the law by statute in Virginia.⁴⁴

41. *Thiesen v. Gulf, F. & A. R. Co.*, 75 Fla. 28, 78 So. 491 (1917).

42. *State v. Pacific Guano Co.*, 22 S. C. 50 (1884).

43. See *MINOR ON REAL PROPERTY* (2d ed.) pp. 85-86 (1928).

44. VA. CODE ANN. § 62-2 (1950).

OWNERSHIP OF SURFACE WATERS

Waters gathered together on the surface of the land and not running in any well defined channel and not a part of a natural lake or pond are commonly called surface waters. Generally everyone disclaims ownership of them. According to one theory (mistakenly called the common law theory)⁴⁵ they are a common enemy from which let him save himself who can, subject of course to the general rule that in saving oneself one should do no more damage than necessary to others. According to another theory known as the civil law rule lower land is by nature servient to higher land in the matter of drainage. The role of the State in the case of surface water is primarily that of arbiter. Nevertheless there is at least in some localities a strong public policy in favor of control and conservation of temporarily excessive surface water in ponds, cisterns, and reservoirs.

STATE OR FEDERAL CONTROL AND DEVELOPMENT?

In the development, use, and conservation of these natural resources owned by the states the question is bound to arise, and has arisen over and over, as to whether cities, counties, states, or the federal government should play the dominant part. It is easy to say that local matters should be handled by the local governments, and general matters should be handled by the state or federal government either directly or through private enterprise. But this problem has too many ramifications for a paper of this sort. It is obviously in the interests of the nation as well as the states that we all use our water resources to their fullest potentialities. The main thing is that this be done wisely, efficiently and honestly. By whom it is to be done is, after all, of secondary importance.⁴⁶

45. See John B. Rood, Surface Waters in Cities, 6 MICH. L. REV. 449, 452.
46. For bibliographies on this subject prepared with special reference to the Central Valley of California but equally applicable to other projects see 21 CALIF. L. REV. pp. 761-781.

RIPARIAN RIGHTS IN THE SOUTHEASTERN STATES

By WILLIAM H. AGNOR*

Mr. Leo Aikman, writing in the Atlanta Constitution of Wednesday, August 13, 1952, included the following account in his column:

"FOLLOW PRAYERS WITH SPRAYERS"

"My farmer friend, Paul Lovinggood, of Lost Mountain community, Cobb County, lost his home by fire a few years ago. Not long after he had his family established in a new house, he had a spell of sickness that slowed him down a little. But those setbacks didn't keep Paul Lovinggood from whistling at his work or from making himself a better farmer or from working for the good of his community. Knowing the fiber of this son of the soil, I was not surprised to read that he didn't let the drought lick him, either. Mark Waits tells the story in The Cobb County Times.

"Paul knows, along with all farmers, that cows give more milk when they stay on green grass. He knows, too, that the grass doesn't stay green without water. Searching the skies in vain for signs of rain, he put in his own sprinkler system.

"Drawing from his experience with irrigation as a truck farmer and from his reading of farm news, he took a pump down to the creek, hooked some pipe to one end of the pump and his tractor to the other and soon had showers falling on a portion of the pasture. With this system, daily he poured 21,000 gallons of water on his grazing plot, moving the sprinkler as one would the hose on his front lawn.

"As a result, the grass stayed lush and green, the cows stayed contented and milk production at the Lovinggood dairy didn't slack off.

"Paul liked the system so well that he will expand it. Eventually, he hopes to dam the creek to create a small reservoir and insure a water supply in case of a prolonged dry spell which cuts the flow in the creek.

"Other Georgia farmers have tried the same trick. Glenn Florence in Douglas County and R. B. Gilbert in Meriwether are notable examples. More farmers will follow the example as the advantages of irrigation become apparent."

*Professor of Law, Emory University, Ga.

This activity of the Cobb County farmer presents the subject of the present discussion. Did he act within his legal rights and could anyone else object to his actions?

It is necessary to include some definitions of terms as used in this discussion and to limit its scope. Only natural watercourses are considered. The cases reveal that it is not easy to define a watercourse.¹ For present purposes, the term "watercourse" is taken to mean a stream of water flowing in a definite direction or course, with a channel, in a bed with banks, having a substantial degree of permanence and continuity, and all of natural origin. A "riparian proprietor" is a landowner whose land is either bounded or crossed by a watercourse. The description of his land must actually "touch the water" in order for him to be a riparian proprietor. This riparian proprietor has certain legal rights and privileges in connection with the watercourse which are not common to the citizens at large and which are known as "riparian rights". Since this discussion concerns only riparian rights in connection with the water in the watercourse, matters of accretion, reliction and avulsion are not herein considered.

This discussion will also be limited to non-navigable watercourses or streams. The landowner whose land is bounded by navigable water has many riparian rights that are found in connection with non-navigable streams, but these rights are subject to the right of navigation in the general public, as set out in State and Federal legislation, so that they differ in many ways from the present subject of discussion.

It might be well to consider what are riparian lands. Suppose that a large single tract of land touches a stream. This tract has riparian rights in the stream, but the question remains as to whether the entire tract is entitled to be benefited thereby. There appears to be a distinction between land outside the watershed of the stream and land within the watershed. Land within the watershed of a stream is riparian land, while land outside the watershed of the stream is considered to be non-riparian land, even though it is contiguous to riparian land.

Riparian rights are appurtenant to riparian land as a natural and inherent incident of the ownership of such land. They are sometimes called "natural rights," as they owe their existence to the nature of the land rather than to any contractual relationship between two landowners. Certain rights in connection with watercourses may arise

1. 56 AM. JUR., Waters, §§ 6-11.

from a contractual relation or by means of adverse user, but when they do they are servitudes and not true riparian rights. They depend upon the contract or prescription that created them and are so construed. This discussion is concerned with the reciprocal rights, liabilities and privileges of riparian proprietors in the waters of a stream or watercourse, where these relations are based on the ownership of land alone with no other legal relation between the proprietors.

The exact origin of our present day law with regard to riparian rights is rather obscure. It has been said that Story and Kent seized on the Roman Law, introduced it into American cases and that this law then found its way into the English cases.² The Restatement also tries to distinguish between a natural flow and a reasonable use theory. It has also been stated that the common law of England has been adopted by most jurisdictions in this country.³ Regardless of its birthplace, and whether the reasonable use theory or a combination of theories is followed, the present statement of the law seems to be generally followed in most American jurisdictions. Each riparian proprietor is entitled to have the watercourse flow by or through his land in its natural course, quantity, and quality, subject only to reasonable use by other proprietors. He, in turn, is entitled to make use of the water in the stream while on his land in any way he sees fit, provided that he does not by such use unreasonably affect the rights of an upper or lower riparian proprietor.⁴

The nine common law states in the Southeast seem to follow this general rule.⁵ The civil law rule in Louisiana seems to be about the same general statement.⁶ There are many statutes in these states dealing with specific matters such as pollution, but very few which cover or deal with general riparian rights. The Georgia statute is possibly the only one and reads as follows:

"The owner of land through which non-navigable watercourse may flow is entitled to have the water in such streams come to

2. RESTATEMENT, Torts, Vol. IV, p. 342 (1939).

3. 56 AM. JUR., Waters, § 284.

4. *Ibid.*, § 273; RESTATEMENT, Torts, Vol. IV, pp. 339-350 (1939).

5. *Ulbricht v. Eufaula Water Co.*, 86 Ala. 587, 6 So. 78 (1889); *Mobile Docks Co. v. Mobile*, 146 Ala. 198, 40 So. 205 (1906); *Tampa Waterworks Co. v. Cline*, 37 Fla. 586, 20 So. 780 (1896); *Robertson v. Arnold*, 182 Ga. 664, 186 S. E. 806, 106 A. L. R. 681 (1936); *Fackler v. Cinc. N. O. & T. P. R. Co.*, 229 Ky. 330, 17 S. W. (2d) 194 (1929); *Miss. Central R. R. Co. v. Mason*, 51 Miss. 234 (1875); *Pernell v. City of Henderson*, 220 N. C. 79, 16 S. E. (2d) 449 (1941); *Omelvany v. Jagers*, 2 HILL (S. C.) 634 (1837); *White v. Whitney Mfg. Co.*, 60 S. C. 254, 38 S. E. 456 (1901); *Cox v. Howell*, 108 Tenn. 130, 65 S. W. 868 (1901); *Town of Purcellville v. Potts*, 179 Va. 514, 19 S. E. (2d) 700 (1942).

6. LA. CIVIL CODE OF 1870, § 661.

his land in its natural and usual flow, subject only to such attention or diminution as may be caused by a reasonable use of it by other riparian proprietors; and the diverting of the stream wholly or in part, from the same, or the obstructing thereof as to impede its course or cause it to overflow or injure his land, or any right appurtenant thereto, or the pollution thereof so as to lessen its value to him, shall be a trespass upon his property."

Since the theme of this discussion concerns the use of water in irrigation, the various other matters that may arise will be considered very lightly first. It should be understood that they are considered based on the law in the Southeastern States.

Each riparian proprietor is entitled to make such use of the entire flow of a stream as he may see fit for the purpose of water power.⁷ However, he is not permitted to detain an unreasonable amount of the flow of a stream for that purpose, nor is he entitled to place obstructions in the stream which will unreasonably reduce the flow. In one case,⁹ the upper riparian proprietor maintained a dam to supply power to his cotton mill. By means of this dam he cut off the entire flow of the stream from 6 p. m. each night until 6 a. m. the next morning. This was held to be unreasonable as applied to a lower riparian proprietor who operated a grist mill.

One of the cardinal rights of a riparian proprietor is to have the waters of the stream come to him in its natural purity.¹⁰ Any pollution of the water seems to violate the rights of all lower riparian owners. The cases are in agreement that a pollution of the stream is an actionable infringement of such right.¹¹ There are many cases dealing with pollution of waters, but in most of them the individual lower proprietors have been forced to initiate the action with little or no governmental aid. So long as our municipalities are one of the chief offenders, it will be difficult to solve the problem of pollution of the streams.

The major problem to be considered here is that of diversion of the flow of the stream. There is no doubt of the right of a riparian

7. GA. CODE, 1933, § 105-1407.

8. Alabama Consolidated Coal & Iron Co. v. Turner, 145 Ala. 639, 29 So. 603 (1905).

9. Price v. High Shoals Mfg. Co., 132 Ga. 246, 64 S. E. 87 (1909).

10. 56 AM. JUR., Waters, § 405.

11. Alabama Consolidated Coal & Iron Co. v. Turner, 145 Ala. 639, 29 So. 603 (1905); Hodges v. Pine Products Co., 135 Ga. 134, 68 S. E. 1107 (1901); Beaver Dam Coal Co. v. Daniel, 227 Ky. 423, 13 S. W. (2d) 254 (1929); Mills v. Smith, 69 Miss. 299, 11 So. 26 (1892); City of Durham v. Eno Cotton Mills, 141 N. C. 615, 54 S. E. 453 (1906); Bowling Coal Co. v. Ruffner, 180 Tenn. 180, 100 S. W. 116 (1907); Arminius Chem. Co. v. Landrum, 113 Va. 73 S. E. 459 (1912).

proprietor to divert the flow of a stream while on his land, so long as he does not materially diminish or detain it and returns it to the lower riparian proprietor through the natural channel. Our question, however, concerns itself with a diversion of the flow of a stream which does consume a part of the water and both diminishes and detains it, since there can be no real irrigation without storage of water. It has been held that to take part of the flow of a stream for use in railroad locomotives did not materially diminish the flow so as to give any cause of action to a lower riparian owner, even where a detention by means of a dam was involved.¹² On the other hand, it has been held that to take some of the flow of a stream to supply water for the inhabitants of a town was a violation of the rights of lower riparian proprietors.¹³ This view may have been due in part to the fact that the water was being used on non-riparian land. It has been stated that:

"Subject to certain qualifications hereinafter noted, it is a universally recognized rule that a riparian proprietor may lawfully divert the water of a stream for the purpose of irrigating his lands."¹⁴

The qualifications stated are generally that such right is a limited one, to be exercised with a reasonable regard for the equal rights of other proprietors. The general statements in the Southeastern States seem to bear out this rule of the "reasonable use of the water for domestic, agricultural, and manufacturing purposes".¹⁵ Very few cases in this area have even considered the idea of irrigation. One court did say:

"But it cannot be withdrawn for the purpose of irrigation, or for any other secondary and artificial purpose, except in such a reasonable and legitimate way as not to interfere unjustifiably with its general use."¹⁶

However, this statement was not material to the issue before the court. There seems to be a lack of authority in the Southeastern States on the problem of irrigation under the doctrine of riparian rights.

12. Fackler v. Cinc., N. O. & T. P. R. Co., 229 Ky. 330, 17 S. W. (2d) 194 (1929); Harris v. Norfolk & W. Ry. Co., 153 N. C. 542, 69 S. E. 623 (1910).

13. Ulbricht v. Eufaula Water Co., 86 Ala. 587, 6 So. 78 (1889); Town of Carrollville v. Potts, 179 Va. 514, 19 S. E. (2d) 700 (1942).

14. 3 AM. JUR., Irrigation, § 9.

15. Ulbricht v. Eufaula Water Co., 86 Ala. 587, 6 So. 78 (1889).

16. Anderson v. Cincinnati Sou. Ry., 86 Ky. 44, 5 S. W. 49 (1887). See also Logan v. Lang, 22 S. C. 159, 37 S. E. 69 (1885).

Applying general principles, it seems to be clear that no water could be used for irrigation on non-riparian land, since such non-riparian use has been refused in other situations.¹⁷ Quite a problem would be presented in connection with the amount of water that any one riparian proprietor could take from the flow of a stream for the purpose of irrigation. It would have to be reasonable, with regard to the rights of all other riparian proprietors. This would have to be determined by a jury in each case. As said by one court:

"The question as to whether or not the use of the water by the first proprietor is reasonable, being necessarily dependent upon the character and size of the stream, the uses to which it is subservient, and the varying circumstances of each case, is one of fact for determination by the jury."¹⁸

Where does this leave Mr. Lovinggood? What protection does he have next year if he impounds and detains a portion of his stream with a dam to use for irrigation? As well as can be stated from the present status of the law in the Southeastern States, he has only two courses open to him. First, he could purchase from the lower riparian proprietors as far down the stream as they would be affected an easement to detain and divert the water of the stream. This assumes that they would be willing to grant such an easement. Second, he could build his dam and wait until a lower riparian proprietor brought an action against him. In that case a jury would finally determine whether his actions were reasonable. Neither of these courses of action appear to answer his problem. It must be concluded that the present status of the law with regard to riparian rights in the Southeastern States does not permit proper use of waters for irrigation, or at least practical use.

It is the purpose of this discussion to raise the problem, not to answer it. However, it might be well to look at some possible solutions without drawing any final conclusions. It might be possible by legislation to set out standards as to what is reasonable use of a stream for irrigation. The administration of such legislation would be difficult. Some of the States have provided for Irrigation Districts with the power to condemn such water rights as they may need.¹⁹ Such public quasi-corporations, however, have not been too successful generally.

17. *Town of Gordonsville v. Zinn*, 129 Va. 542, 106 S. E. 508, 14 A. L. R. 318 (1921).

18. *White v. East Lake Land Co.*, 96 Ga. 415, 23 S. E. 393 (1895).

19. *E. g.*, La., R. S., 1950, § 38:2101 *et seq.*

It has been suggested that the doctrine of prior appropriation that exists in the arid Western States would be the answer to the problem in the Southeastern States. Space does not permit much consideration of this doctrine of prior appropriation and of the Federal Desert Lands Act, commonly called the Carey Act,²⁰ or the Federal Reclamation Act.²¹ The essence of this doctrine is "First come, first served". The first person to appropriate the waters of a stream to a beneficial use is entitled to the full flow of the stream. He does not have to be a riparian proprietor, may use the water on non-riparian land, and may even sell the water to others. This doctrine appears to have been exclusively recognized in place of the doctrine of riparian rights in the states of Montana, Idaho, Wyoming, Nevada, Utah, Colorado, Arizona, and New Mexico. It exists along with limited riparian rights in California, Kansas, Nebraska, North Dakota, Oklahoma, Oregon, South Dakota, Texas, and Washington.²² It should be noted that in these states the doctrine of prior appropriation existed in connection with public lands especially and that in any event most of the land was settled under this doctrine. In Oregon and Kansas the doctrine of prior appropriation was adopted in recent years. This raises the question of whether a state where the doctrine of riparian rights is in force could by legislation change to the doctrine of prior appropriation.²³ It might be well to look at the situation in Oregon and Kansas. The Oregon case²⁴ that is generally cited as sustaining the statute of appropriation concerned a plaintiff who took the lands after the statute. The court also said that the statute was valid "except as such change may affect some vested rights". This still leaves some doubt. In Kansas the court held the statute valid and said that vested riparian rights did not matter.²⁵ However, the court cited only four cases, and those on another point, and entirely ignored an earlier Kansas case which had held that riparian rights could not be taken without due process of law and that a statute could not change to the doctrine of prior appropriation without just compensation for vested riparian rights.²⁶ Also, the California court held a statute invalid which sought to substitute appropriation for vested riparian rights.²⁷

20. Act Aug. 18, 1894, Chapt. 301, § 4, 28 STAT. AT L. 422, 43 U. S. C. A. § 641.

21. 43 U. S. C. A. Chap. 12, § 371 *et seq.*

22. 20 A. L. R. 2d 656, 660.

23. 56 A. L. R. 277.

24. *In re Hood River*, 114 Ore. 112, 227 Pac. 1065 (1924).

25. *Emery v. Knapp*, 167 Kan. 546, 207 Pac. (2d) 440 (1949).

26. *Clark v. Allaman*, 71 Kan. 206, 80 Pac. 571 (1905).

27. *Fall River Valley Irr. Dist. v. Mt. Shasta Power Corp.*, 202 Calif. 56, 259 Pac. 444 (1927).

Could a Southeastern State change to the doctrine of prior appropriation without giving just compensation for vested riparian rights? It would appear unlikely. One court stated: "We have said that the rights of a riparian owner at common law constituted property of which he could not be deprived without just compensation."²⁸ It has also been held that a statute declaring a non-navigable stream to be navigable and thus depriving riparian proprietors of some of their riparian rights was a taking of property without just compensation.²⁹ Also, a statute permitting the floating of logs on streams was invalid for the same reason.³⁰ The case of *City of Birmingham v. Lot*³¹ is more recent. Here the statute in question had sought to grant all fishing rights on waters in the state to the public. The statute was held to be invalid, since the beds of non-navigable streams belong to riparian owners and their exclusive fishing rights cannot be divested and granted to the public by legislative fiat. Thus it would appear unlikely that the doctrine of prior appropriation could be adopted in a Southeastern State by legislative enactment.

It is suggested that the problem of proper irrigation under our present system of riparian rights is one that needs more consideration both by the bar of our several states and in the law schools.³² Some solution must be found to Mr. Lovinggood's problem. The present status of the law in regard to riparian rights seems inadequate. It is hoped that this discussion has at least presented the problem, even though no solution is offered. This problem has at least received considerable study in one state, the State of South Carolina.³³

28. *Thiesen v. Gulf, F. & A. Ry. Co.*, 75 Fla. 28, 78 So. 491 (1918).

29. *Olive v. State*, 86 Ala. 88, 5 So. 653 (1889); *Murray v. Preston*, 106 Ala. 561, 50 S. W. 1095 (1899).

30. *Allison v. Davidson*, 39 S. W. 905 (Tenn. 1896).

31. 243 Ala. 367, 10 So. (2d) 24 (1942).

32. The writer used the following question on an examination in Rights of Land in June, 1952, which included many things here under discussion: "George has purchased a large lot on the west side of River Road, containing about 100 acres. The land slopes from north to south, with lots owned by Frank just north of his lot and by Jack north of Frank's lot, both being higher in elevation than his lot, and with a lot owned by Harry just south of his lot and lower in elevation. A small stream, known as Mud Creek, flows from north to south across all four lots. Surface water from River Road and from Frank's lot flows through a low place on George's lot to Mud Creek. George wants to build a house on his lot. Mud Creek makes a sharp horseshoe bend on George's lot toward River Road. George wants to change the channel of Mud Creek so that it will have a bend away from River Road, but will flow onto Harry's lot at the same point as at present. George also wants to use water from Mud Creek to irrigate a garden he plans to have at the rear of his lot. George also wants to fill in the low place on his lot. If he does so, the surface water which runs across his lot will run across Frank's lot to Mud Creek. It appears that Jack has an automobile service station on his lot. He pours old crankcase oil into Mud Creek so that there is a film of oil on the water. George consults you. What are his rights? Discuss."

33. BUSBY, C. E., *THE BENEFICIAL USE OF WATER IN SOUTH CAROLINA*, 1952.

GROUND WATERS IN THE SOUTHEASTERN STATES

ROScoe CROSS*

The body of law relating to this subject has generally recognized two major classifications of underground or subterranean waters: (1) underground streams which flow in definite or ascertainable channels; and (2) waters which percolate, ooze or seep through the earth without any definite channels, being commonly identified as "percolating waters".

In general, the rules of law regarding surface streams are applied to definite underground streams.¹ Since other participants in this panel will deal with the law as applied to surface streams, this paper does not purport to discuss, generally, the rights and liabilities in regard to definite streams other than to make the following general statements. Unless subterranean waters are known to flow in a definite channel it is usually presumed that they are percolating waters and the existence of an underground stream must be proven by the party alleging it. A flow of underground water through a seam or fissure in the subsurface does not constitute a stream. It would seem that one must establish the existence of a definite channel or current under the surface. Size of the definite flow may also be a factor.² If water comes to the surface as a "spring" by natural forces and in sufficient volume to provide a permanent watercourse across adjoining land, the owner of the land on which it surfaces as well as the owners of adjoining lands over which it flows in a watercourse will have the rights and liabilities of riparian owners.³

In considering the doctrine applicable to percolating waters, one must differentiate between the "English" rule and the "American" rule or rules. The English rule rests upon the fundamental concept that the owner of the soil owns to the sky and to the centre of the earth (*i. e.* "*cujus est solum, ejus est usque ad coelum et ad inferos*"). Hence, an owner of land has the absolute right to withdraw from percolating waters on his land and use it as he pleases, without regard to the effect on lower or adjoining owners. The full application of that

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1. 56 AM. JUR., "Waters," § 109 and cases there cited.

2. *Clinchfield Coal Corp. v. Compton*, 148 Va. 437, 139 S. E. 308 (1927); *Wherlock v. Jacobs*, 70 Vt. 162, 40 Atl. 41 (1897).

3. 56 AM. JUR., "Waters," § 133.

view is well illustrated by *Mayor of Bradford v. Pickles*.⁴ There the municipality owned a tract from which was obtained its water supply. The respondent, Pickles, owned a parcel which was somewhat higher than appellant's tract. The geological formation of the subsurface of his parcel was such that percolating waters were forced by nature to flow to appellant's tract. After appellant had been taking water from its tract for several decades, respondent sank a well on his land with the result that appellant's supply diminished. Appellant sought to enjoin respondent's withdrawing of water on his land in diminution of its supply, contending that respondent's real motive was to injure appellant and compel it to buy respondent's land. In holding that appellant was not entitled to an injunction, the House of Lords stated:

"The only remaining point . . . is that the acts done by the defendant are done, not with any view which deals with the use on his own land or the percolating water through it, but is done in the language of the pleader, 'maliciously' . . .

"This is not a case in which the state of mind of the person doing the act can effect the right to do it. If it was a lawful act, however ill the motive might be, he has a right to do it . . . Motives and intentions in such a question . . . seem to me to be absolutely irrelevant."

Earlier American cases, including some in our own southeastern region, recognized the English rule.⁵ These cases indicated, at least, that the English rule would not be unqualifiedly applied for the benefit of the interfering owner when he was activated by malice or other improper motive.

As might be expected the English concept of absolute ownership has been questioned, and even repudiated, by numerous American jurisdictions. In consequence, there has been developed in this country the doctrines of "reasonable use" and "correlative rights". Under the first of these, a proprietor has a *right to a reasonable and beneficial* use of percolating waters under his land in connection with his utilization and development of that land. He may make such use of percolating waters in mining, manufacturing, agriculture, and otherwise on the land where it is withdrawn, even though his use interferes

4. 1895 A. C. 587. See also, *Bleacher's Association, Ltd. v. Rural Dist Council*, (1933) 1 ch. 356.

5. *Shahan v. Brown*, 179 Ala. 425, 60 So. 891 (1913); *Tampa Waterworks Co. v. Cline*, 37 Fla. 586, 20 So. 780 (1896); *Saddler v. Lee*, 66 Ga. 45 (1879); *Kinnaird v. Standard Oil Co.*, 89 Ky. 468, 12 S. W. 937 (1890); *Miller v. Black Rock Springs Improvement Co.*, 99 Va. 747, 40 S. E. 27 (1901).

with, diminishes, or completely cuts off his neighbor's present or prospective use of such waters on the neighbor's land. The neighbor has the same rights to use percolating waters which he brings to the surface on his land. The courts which apply this doctrine usually hold that negligent or wasteful disposition of such waters is not reasonable, to the extent that it interrupts or depletes a neighbor's use. A number of jurisdictions apply the rule of reasonable use to prevent the extraction and transfer of water from the land on which it is mined when such operations are detrimental to a neighbor's extraction and use on his own premises. An apparent example would be the case of a water company which draws water by wells on a tract owned by it and then pipes it to a community several miles away.

The doctrine of "correlative rights" is frequently treated as being identical with "reasonable use". It would appear to be more accurate to consider "correlative rights" as an extension or refinement of "reasonable use", rather than as a distinct or separate rule. Under the latter doctrine, the courts do not indicate that there is any limitation upon the quantity of water to be taken so long as the use is reasonable as regards purpose and disposition as previously pointed out. In some instances the doctrine of "correlative rights" limits a taker to his proportionate share, according to his surface area as compared with the whole area overlying the water supply. In other cases, it is applied to predicate taking upon the greatest utilization.⁶ This doctrine appears to have had its widest acceptance in those western states where there has been a chronic shortage of water.

Another proposition of particular application in some western states is the "priority of appropriation rule". Under this rule, the first to take and apply to a beneficial use has a prior vested right to continue to take to the extent of such use, to the end that a subsequent use may not diminish the first taker's amount of water. One authority has set forth the rule as: "Beneficial use shall be the basis, the measure, and the limit of the right to the use of water".^{6(a)} It would appear fair to observe that "priority of appropriation" is hardly an independent or separate rule but rather an adaptation of the rule of "reasonable use".

With one possible exception, the courts in our region seem to have been concerned with the application of the "English" rule or the "reasonable use" rule, without embracing "correlative rights" or

⁶ See, McHENDRIE, *THE LAW OF UNDERGROUND WATER*, 13 Rocky Mountain L. R. I. 6(a). *Id.*

"priority of appropriation". The cases hereafter referred to will be used to illustrate the trends of our courts.

(1) In *Nourse v. Andrews, Mayor of Russellville*,⁷ the plaintiff owned land along a river which he claimed was fed by percolation of water from an adjoining tract which the City had bought to obtain a water supply from the underlying waters. Plaintiff claimed that such diversion by the city would cut off his water supply and deprive him of a property right in percolating waters. In rejecting his prayer for an injunction, the Court stated:

"Percolating waters are part of the earth itself, as much as the soil and stones with the same absolute right of use . . . by the owner of the land . . . " . . . The owner of the soil is entitled to the waters percolating through it, and such water is *not* subject to appropriation . . ."

(2) In *Sycamore Coal Co. v. Stanley*,⁸ plaintiff had a well on his farm. Defendant coal company drilled a four inch core on its adjoining land to determine a coal seam, and when the core reached sixty feet plaintiff's well was rendered useless. The Court rejected his claim for damages and, after setting forth its statement of the English rule, went on to explain:

" . . . but in most jurisdictions in this country the rule sometimes referred to as the American or reasonable use rule, . . . has been adopted. According to this rule, the right of a landowner to subterranean percolating waters is limited to a reasonable and beneficial use of the waters under his land and he has no right to waste them, whether through malice or indifference. If, by such waste, he injures a neighboring landowner. Here the appellant was using its land in a legitimate manner, and drilled the hole for a necessary and useful purpose."

(3) In *Sloss-Sheffield Steel & Iron Co. v. Wilkes*,⁹ a mine roof on defendant company's adjoining land fell and percolating water no longer came to plaintiff's well and springs. In regard to plaintiff's right to damages, the Court stated:

"If the defendant is conducting any sort of operations to which its land is adapted in any ordinary and careful manner, and as a consequence percolating water is drained, affecting the surface owner's water supply, either of that or adjoining land, no li-

7. 200 Ky. 467, 255 S. W. 84 (1923).

8. 292 Ky. 168, 166 S. W. 2d 293 (1942).

9. 231 Ala. 511, 165 So. 764 (1936).

bility for his damage exists. But, if the waters are drained without a reasonable need to do so, or are wilfully or negligently wasted in such operation in a way and manner that it should have anticipated to occur, and as a proximate result the damage accrued to the surface owners so affected, including adjoining landowners, there is an actionable claim . . ."

(4) In *Cáson v. Florida Power Co.*,¹⁰ defendant company erected a dam on its lower land. Subterranean drainage of percolating waters from plaintiff's upper land was interrupted so that his water-table was raised, to the damage of his land, improvements and crops. The Court stated that the issue was whether defendant's use of its land was reasonable and that the question should have been submitted to the jury. In the course of its opinion, the Court explained:

"The property rights relative to the passage of waters that naturally percolate through the land of one owner to and through the land of another are correlative; and each land owner is restricted to a reasonable use of his property as it affects subsurface waters passing to or from the land of another."

While the Court used the word "correlative," it is apparent that the term was used as being interchangeable with "reasonable use". In the later case of *Labruzzo v. Atlantic Dredging Co.*,¹¹ the same Court had to consider a plaintiff's right to recover for interference with his water supply in consequence of defendant's excavations on its adjoining land. Relying upon a Pennsylvania decision, the Florida Court declared that there was no liability for loss of percolating waters if occasioned by an adjoining owner's lawful use of his land, without malice or negligence, but if injury to a neighbor's water supply can be plainly anticipated and can be avoided by reasonable care and at reasonable expense, the owner causing the damage is not exempt from all obligations. The case was sent back to have the jury decide whether defendant's conduct was "unreasonable under all the circumstances".

(5) In *Rouse v. Kinston*,¹² defendant City of Kinston bought a half acre of land adjoining plaintiff, and sank three deep wells from which it piped water to its corporate limits for sale. Plaintiff's farm was diminished in value because two of his wells went completely dry and a third dropped considerably as soon as the defendant drilled its wells. Plaintiff sued for damages. On appeal, the charge of the

10. 74 Fla. 1, 76 So. 535 (1917).

11. 54 So. 2d 673 (Fla. 1951).

12. 188 N. C. 1, 123 S. E. 482 (1924).

lower court was affirmed. That charge set forth, in part, that:

"This rule (reasonable use) does not prevent the private use of any landowner of percolating waters subjacent to his soil in manufacturing, agriculture, irrigation, or otherwise; nor does it prevent any reasonable development of his land by mining, or the like, although by such use the underground percolating waters of his neighbors may be thus interfered with or diverted; but it does prevent the withdrawal of underground waters for distribution or sale, for uses *not connected with any beneficial ownership or enjoyment of the land from which they are taken*, if it thereby follows that the owner of adjacent lands is interfered with in his right to the reasonable use of subsurface water upon his own land . . . whatever is reasonable for the owner to do with his subsurface water, he may do. He may make the most of it that he reasonably can. It is not unreasonable for him to dig wells and take therefrom all of the waters that he needs in order to get the fullest enjoyment and usefulness from his land, for the purposes of abode, productiveness of the soil, or manufacture or whatever else the land is capable of."

(6) In *N. C. & St. L. Ry. v. Rickert*,¹³ the defendant conveyed to the plaintiff railroad, about 30 years before, one acre of land on which was a spring from which it supplied its trains at the rate of 50,000 gallons daily. Defendant sank a well on his land to supply a swimming pool thereon and to sell any surplus of water from his well to a neighboring town. Pumping from defendant's well caused plaintiff's spring to go dry, but flow of the spring returned upon cessation of defendant's pumping. In affirming the lower court's injunction against the defendant, the Tennessee Court of Appeals set forth its views as to percolating waters in the following language:

"The better rule is that the rights of each owner being similar, and their enjoyment dependant on the action of other landowners, their right must be *correlative* and subject to the maxim that one must so use his own as not to injure another, so that each landowner is restricted to a reasonable exercise of his own rights and a reasonable use of his own property, in view of similar rights of others.

"The defendant can pump a considerable quantity of water from his well without materially reducing the flow of water from complainant's spring, and this he has a lawful right to do.

13. 19 Tenn. App. 446, 89 S. W. 2d 889 (1935).

The injunction goes no further than to enjoin and inhibit him from pumping water . . . on his property, in such quantities and to such an extent as will interfere with or impair complainant's right to supply its trains and tanks from complainant's spring."¹⁴

While the Court refers to the rights as "correlative," it made no attempt to indicate the extent of defendant's right other than to limit his use to taking to such an extent, only, as would not impair the railroad's right to supply its trains and tanks . . . without limitation as to the railroad.

In *Board of Supervisors v. Mississippi Lumber Co.*,¹⁵ the plaintiffs had an artesian well in the courthouse from which was supplied an adequate quantity of water for a public drinking fountain. Defendant bored four wells on its property, forced the water to the surface by pressure, and used it in preserving and floating logs in connection with its business on the same property. Defendant's taking of water greatly reduced the flow at plaintiff's well, but defendant was acting in good faith. In affirming the dismissal of plaintiff's bill of complaint, the Court held:

"Such waters (percolating) belong to the realty, to be used at will by its owner for any purpose of his own . . . on his own land. The right to bore for water to be used on the land for the business uses of the owner of the land is fully recognized . . . The mere boring of a single well might destroy the well of a neighbor on a lower level, but this would furnish no cause of action."

In *Clinchfield Coal Corp. v. Compton*,¹⁶ a spring went dry on plaintiff's land when surface cracks developed on defendant corporation's adjoining land in consequence of its coal mining operations thereon. The court of last resort in Virginia, in holding that the plaintiff had suffered no actionable injury, discussed the English rule and "reasonable use". But since defendant's use of its land was legitimate, the Court stated that its conclusion would be the same under either rule, "but if the question should again come before this Court, we shall feel free to consider it *de novo*".

In *Stoner v. Patten*,¹⁷ the plaintiff claimed that a water supply emerging on his land flowed in a definite channel partly on the sur-

14. Italics supplied.

15. 80 Miss. 535, 31 So. 905 (1902).

16. 148 Va. 437, 139 S. E. 308 (1927). See, also *Couch v. Clinchfield Coal Corp.*, 148 Va. 455, 139 S. E. 314 (1927).

17. 124 Ga. 754, 52 S. E. 894 (1906); 132 Ga. 178, 63 S. E. 897 (1909).

face and partly underground, from higher land owned by a woman who had given the defendant the right to divert water from the surface channel on her land to the defendant's property. The plaintiff prevailed in his contention that the defendant, as a non-riparian owner, could not divert water from the stream to the plaintiff's detriment. However, the Court made the following observations:

"The books abound with reported cases from Courts of last resort, wherein it is held that if the owner of the land, in the absence of malice, make an excavation on his own premises thereby draining the well of another, the draining being caused by cutting off the underground springs or fountains which supply the well, *no action will lie* . . . The ownership of land extends indefinitely within the bowels of the earth and the owner has the same exclusive proprietorship in the water which seeps through his soil and collects in the substrata as to that water which falls from the clouds upon the roof of his house and is collected in a cistern until the percolating water becomes a part of a well defined stream."

Due to the rainfall and the number of surface streams or bodies of fresh water, the matter of adequate water supply has not become a general or widespread serious problem for the southeastern part of this country. However, the problem may be closer at hand than we realize. Population has increased, particularly in our cities. There has been a tremendous industrial growth. Irrigation has been considered and resorted to in some instances. Uses of water have multiplied. As one remarkable illustration, a recent article in a current periodical contained the statement that "in Washington, D. C., air conditioning plants are estimated to account for 15 to 20 per cent of the water now used".¹⁸ In one instance a large corporate user of subterranean waters in the processing of wood fibres is located in a growing community in which the water table is reputed to have dropped some 10 to 20 feet. Your speaker is advised that the corporation has obtained a distant tract of land to assure, among other things, an adequate water supply. As we all know, it is becoming a common occurrence for growing cities which are not near usable surface waters to go well outside their corporate limits to acquire lands from which to obtain subterranean waters for city uses. Our State Geologists and the U. S. Geological Survey are alert to this prospective problem, from a scientific point of view. However,

18. Nichols and Colton, "Water for the World's Growing Needs," *THE NATIONAL GEOGRAPHIC MAGAZINE*, August 1952, p. 269.

search and inquiry indicate that apart from statutes on pollution, none of the southeastern States has any broad comprehensive legislation relating to the use and disposition of ground waters. Probably the lack of such legislation may be explained by one Attorney General's assumption "that the problem has not arisen here sufficiently to require legislative action". From 1929 through 1951, the legislature of Florida has enacted several statutes to "protect and control the artesian waters" in particular counties.¹⁹ Your speaker has examined only the 3 statutes enacted in 1951 but has been advised by Florida's Attorney General that the earlier statutes are "similar".

By each of Florida's 1951 acts, the owner, person in control, or occupant is prohibited from permitting unnecessary flow or waste from an artesian well. An artesian well is defined as an artificial hole in which ground waters rise to an elevation above the top of the water bearing "bed". The acts permit flow or use for irrigation, mining, industrial purposes and domestic use. To prevent prohibited flow, the well must be equipped with valves capable of controlling the discharge of water.

In Mississippi, House Bill No. 329 was introduced during the 1952 session of the legislature, but died in committee. This bill, which is much longer than the Florida acts, contemplated statewide application. It embraced the general objectives of the Florida enactments and in addition required written permit from the State Oil and Gas Commission for drilling of any additional wells by anyone.

Of course, the type of legislation which we have just mentioned hardly scratches the surface of the big problem; namely, the enactment of long range legislation which may chart the course for intelligent development of our resource in percolating waters. The Florida laws and the Mississippi bill purport to do no more than minimize waste in one aspect. There is still the problem of determining whether the full utilization of ground waters is to be developed upon the "English" rule, "reasonable use", "correlative rights", "prior appropriation" or some other principle. Any attempt to obtain enactment of a policy statute or code, so-called, for the development and utilization of ground waters would involve the codification, modification, or even the abrogation of some very, very fundamental propositions in property law. In our region, the urgency of such legislation might well appear to be too far away to arouse much immediate concern, especially among legislators. It would not seem to be presumptive to say

19. LAWS OF FLORIDA, ch. 14, 581, Acts 1929; 16785, Acts 1935; 16786, Acts 1935; 16787, Acts 1935; 19895, Acts 1939; 22935, Acts 1945; 23204, Acts 1945; 26994, 26995 and 26996, Acts 1951.

that the accomplishment of such legislation will only result from an effective and protracted period of education for our citizens and public officials. For this task, the talents and learning of both geologists and lawyers have to be carefully integrated. At the same time, the acts and the proposition already discussed constitute a step forward, small though it be. While the resulting conservation from such legislation may be minuscule, the very need to comply with its provisions might make the public aware, at least, that a problem exists.

THE BALANCE OF CONVENIENCE DOCTRINE IN THE SOUTHEASTERN STATES, PARTICULARLY AS APPLIED TO WATER

FRANK E. MALONEY*

An article in the August 1952 issue of *The National Geographic Magazine* points up the growing importance of water to all of us. The writer has this to say:¹

"Though our average citizen drinks less than half a gallon of liquid a day, he uses about 1,100 gallons of water daily for all domestic, agricultural, and industrial purposes, not counting hydro power

"In Texas the population nearly tripled in the 50-year period ending in 1940, but use of water increased 71 times on an average for all purposes. For industries and municipalities the increase was 30 times; for irrigation, about 55 times; for water power, about 85 times."

It has been predicted in the authoritative journal of the American Water Works Association that ten years from now industrial demand for water will be doubled, but that this doubled demand will still represent only about 25 to 35 per cent of the total water intake of the country, since the writer predicts that the demand for other uses, such as for irrigation and steam power, will correspondingly increase.² We may certainly expect a tremendous increase in industrial demand in the Southeast, since two of our growing industries, pulp and paper, and steel, lead all others in industrial water requirements;³ and the use of water for irrigation, while as yet in its

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1. Vol. CII, No. 2, p. 269.

2. Wolman, *Characteristics and Problems of Industrial Water Supply*, 44 J. AM. WATER WORKS ASS'N 279, 280 (1952). The writer is Professor of Sanitary Engineering at Johns Hopkins University and former Chairman of the National Water Resources Committee. See also Green, *Water Use in Industry*, 43 J. AM. WATER WORKS ASS'N 591 (1951).

3. See Powell and Bacon, *Magnitude of Industrial Demand for Process Water*, 42 J. AM. WATER WORKS ASS'N 777, 782 (1950). Wolman, *supra* note 2, points out that four types of industry, electrical, pulp and paper, petroleum products, and steel, account for 80% of the total industrial water intake.

infancy in this region,⁴ has already shown signs of rapid and vigorous growth.⁵

It is apparent that, with this tremendous increase in the amount of water being used in the Southeast today, serious legal problems may arise in connection with the distribution of available water supplies.⁶ Now where does the balance of convenience doctrine fit into this picture? This doctrine has been employed principally as a limitation upon the availability of one type of sanction used for the enforcement of water rights—the injunction. Before discussing the effect of the balance of convenience doctrine, therefore, it will be well to first examine briefly the use of the injunction in water rights cases to see how important a part that sanction plays in the enforcement scheme. Next will be considered the historical development of the doctrine in its relationship to the granting of injunctive relief. Third, and more important, will come the application of the doctrine to date in our Southeastern states. Fourth and finally, realizing that the doctrine has so far been applied in the Southeast for the most part in cases involving damage through pollution of water supplies, a study will be made of the place of the balance of convenience doctrine in relation to the growing problem of regulating the use of water for irrigation and industry in the Southeast.

PLACE OF THE DOCTRINE IN THE SCHEME OF REGULATORY ENFORCEMENT

What remedies are available for the enforcement of water rights and how does the injunction fit into that scheme of remedies? The remedies may, in general, be divided into two classes: (1) specific relief through equitable remedies; and (2) actions at law, including, in appropriate cases, the extraordinary remedies of prohibition

4. As of 1950 nearly 95% of the total land irrigated in the United States was within the area generally referred to as the 17 Western states. See REPORT OF THE PRESIDENT'S WATER RESOURCES POLICY COMMISSION, WATER RESOURCES LAW 152 (1950).

5. See p. 168 *infra*.

6. The increasing importance of water in the Southeast has already resulted in considerable examination by our law journals of the legal problems connected with the use of water in this area. See Wilcox, *Authority of the State of Florida over Her Waters*, 12 FLA. L. J. 319 (1938); Notes: 3 ALA. L. REV. 248 (1950); *Extent of Private Rights in Non-Navigable Lakes*, 5 U. OF FLA. L. REV. 166 (1952); *Waters: Surface Water Drainage*, 2 U. OF FLA. L. REV. 392 (1949); *Irrigation in Kentucky as Affected by the Law of Riparian Rights*, 40 KY. L. J. 423 (1952); *The Rule in Kentucky as to Surface Waters*, 35 KY. L. J. 86 (1946); *Rights and Remedies in the Law of Stream Pollution*, 35 VA. L. REV. 774 (1949).

and *quo warranto*⁷ and actions in ejectment,⁸ but primarily the common law action for damages.⁹ In those relatively few cases in which there is a contract between the parties specific relief may be had by way of specific performance,¹⁰ and the balance of convenience doctrine is incidentally applicable to those cases.¹¹ The majority of the cases, however, sound in tort, and the preferred type of relief against such torts is by way of injunction rather than action for damages.¹² The primary reason for this preference is that injunctive relief is preventive. It can furnish relief before, instead of after, a threatened violation. Moreover, in many cases involving water rights preventive relief by way of injunction may be the only effective sanction, because an action for damages will, if successful, result in such a small judgment as to be valuable only as a means

7. A discussion of these extraordinary remedies is beyond the scope of this article. They are covered in detail in 3 KINNEY, IRRIGATION AND WATER RIGHTS (1912); see §§ 1649 (mandamus), 1651 (prohibition), 1653 (*quo warranto*). In general, mandamus may be used in appropriate cases to compel a water company to furnish water for irrigation, or to compel a state engineer or water commissioner to distribute water as provided by law. Prohibition may be used when an inferior court wrongfully takes jurisdiction of a water dispute. *Quo warranto* may be used to test the validity of reclamation or irrigation districts, or to annul the franchise of a water company that improperly fails to supply water as required by its charter.

8. This action may be useful to prevent the unlawful exclusion of a riparian owner from the use of a stream. *Glassell v. Hansen*, 135 Cal. 547, 67 Pac. 964 (1902); see 3 KINNEY, IRRIGATION AND WATER RIGHTS § 1654 (1912).

9. Again, coverage of this remedy is beyond the scope of this article. Kinney devotes approximately 100 pages to this subject, 3 KINNEY, IRRIGATION AND WATER RIGHTS 3052-3146 (1912). In addition to these actions at law, there is often the possibility of enforcement through criminal prosecution, *id.* § 1657. This possibility does not, however, preclude a civil action for equitable or legal relief. *People v. Trukee Lumber Co.*, 116 Cal. 397, 48 Pac. 374 (1897); *accord*, *Murphy v. United States*, 272 U. S. 630 (1926); *Pompano Horse Club v. State*, 93 Fla. 415, 111 So. 801 (1927); see Note, 2 U. OF FLA. L. REV. 250 (1949).

10. Thus specific performance may be had of a contract by a water company to supply water for irrigation. *Ulrich v. Pateros Water Ditch Co.*, 67 Wash. 324, 121 Pac. 818 (1912). Since the water is generally not available elsewhere, the remedy at law is inadequate in these cases and the equitable remedy is accordingly available. See 3 KINNEY, IRRIGATION AND WATER RIGHTS § 1650 (1912).

11. *Taylor v. Florida E. C. R. R.*, 54 Fla. 635, 45 So. 574 (1907); *Rockhill Club v. Volker*, 331 Mo. 947, 56 S. W. 2d 9 (1932). "Public interest, therefore, must always be carefully appraised when it really has a place in cases of specific performance," GLENN AND REDDEN, *CASES ON EQUITY* 537 n. (1946).

12. Since injunctive relief is equitable in nature, it is necessary to establish a basis for equity jurisdiction in these cases. This basis is easily found, however, since water rights have long been regarded as a type of real property right and hence the subject of equitable protection as a matter of course. See 3 TIFFANY, *REAL PROPERTY* 117 (3d ed. 1939); 1 WIEL, *WATER RIGHTS IN THE WESTERN STATES* 20-21 (3d ed. 1911).

of preventing the gaining of a prescriptive right by the defendant, whereas an injunction may completely stop the violation. In addition, the damages that could be obtained in an action at law can be obtained as an adjunct of the specific relief given in an injunctive suit.¹⁴

Having seen the importance of the injunction in the enforcement scheme, it is now appropriate to examine the relationship of the balance of convenience doctrine to the granting of injunctive relief. In this connection it should first be realized that this doctrine is simply one of a group of limitations on the use of the injunction. The next question is, what are those limitations and to what extent does their application lie within the discretion of the court in which injunctive relief is being sought?¹⁵ In addition to the balance of convenience doctrine, they include the doctrine of laches,¹⁶ the refusal of injunctive relief when the court recognizes that the injunction is being sought primarily to be used as a club for the purpose of extorting an exorbitant settlement from the defendant violator;¹⁷ and the application of the *de minimis* principle,¹⁸ under which in some jurisdictions the court may refuse to grant equitable relief when no substantial damage is alleged or proved, leaving the complainant to his action for damages at law to prevent the running of the prescription period.¹⁹

13. WALSH, TREATISE ON EQUITY 178-182 (1930); see Wiel, *Injunction without Damages as Illustrated by a Point in the Law of Waters*, 5 CAL. L. REV. 199 (1917); see *Webb v. Portland Mfg. Co.*, 29 Fed. Cas. 506, No. 17,122 (C. C. D. Me. 1838).

14. *Abbott v. The 76 Land and Water Co.*, 161 Cal. 42, 118 Pac. 425 (1911); WALSH, *supra* note 13, at 179-180.

15. One such limitation is found in all jurisdictions in the interlocutory injunction cases when it is universally recognized that the trial court can refuse to grant an injunction *pendente lite* in the absence of a showing that a refusal of injunctive relief at this stage in the proceedings will work serious hardship on the complainant. *Boatwright v. Town of Leighton*, 231 Ala. 607, 166 So. 418 (1936); *Sanders v. Textile Workers Organizing Committee*, 187 S. Ct. 66, 196 S. E. 543 (1938); 5 POMEROY, EQUITABLE JURISPRUDENCE AND EQUITABLE REMEDIES § 1949 (4th ed. 1919).

16. Under this doctrine a complainant may be refused injunctive relief if he has slept on his rights while defendant acted to his prejudice, as, for example, by preparing expensive works for the use of the water in question. *New York City v. Pine*, 185 U. S. 93 (1902); *accord*, *Brooks v. Patterson*, 129 Fla. 263, 31 So. 2d 472 (1947).

17. *Edwards v. Allouez Mining Co.*, 38 Mich. 46 (1878); *McCann v. Chasm Power Co.*, 211 N. Y. 301, 105 N. E. 416 (1914); *cf.* *Platte Valley Irr. Dist. v. Tilley*, 142 Neb. 122, 5 N. W. 2d 252 (1942).

18. *De minimis non curat lex* (The law does not concern itself with trifles). *McCann v. Chasm Power Co.*, 211 N. Y. 301, 105 N. E. 416 (1914). *Contra*, *Gering Irr. Dist. v. Mitchell Irr. Dist.*, 141 Neb. 344, 3 N. W. 2d 566 (1942).

19. *McCann v. Chasm Power Co.*, 211 N. Y. 301, 105 N. E. 416 (1914); *cf.* *Chow v. Santa Barbara*, 217 Cal. 673, 22 P. 2d 5 (1933). *Contra*: *Amsterdam Knitting Co. v. Dean*, 162 N. Y. 278, 56 N. E. 757 (1900); *Mann v. Willey*, 51 App. Div. 169, 64 N. Y. Supp. 589 (3d Dep't 1900), *aff'd*, 168 N. Y.

The most important limitation on preventive relief for our purposes, however, is the balance of convenience doctrine. What is this doctrine? It is difficult to define, since many varying factors are involved in its application in different cases. The language of Mr. Justice Brandeis in a 1933 nuisance case, however, may provide a key to its general meaning. In *Harrisonville v. Dickey Clay Manufacturing Company* he states:²⁰

"For an injunction is not a remedy which issues as of course. Where substantial redress can be afforded by the payment of money and issuance of an injunction would subject the defendant to grossly disproportionate hardship, equitable relief may be denied although the nuisance is indisputable."

In other words, in jurisdictions applying the doctrine, an injunction does not necessarily follow in all cases in which a legal right is violated. The problem will be to determine in what type of water right cases injunctive relief may be or is likely to be withheld.

HISTORICAL DEVELOPMENT

The adoption of the term "balance of convenience" was perhaps unfortunate. Its use has in the past resulted in criticism on the ground that courts should deal in legal rights, not conveniences,²¹ and the very idea of balancing conveniences has been rejected by some courts as something beyond the judicial power. In fact the American Law Institute would have us drop the term "conveniences" and talk instead of balancing "injuries" on grounds of "relative hardship".²² Whether this change in terminology will in itself make the doctrine more palatable to members of the imperative school of jurisprudence is to be doubted, but the trend toward the acceptance of the balancing of equities doctrine by American courts has been quite widespread during the past several decades.²³ This shift is

664, 61 N. E. 1131 (1901). It is interesting to note that in cases of interference with riparian rights, as in trespass cases, damage is presumed from the interference, so that the action for damages will lie without proof of actual injury, and likewise the period of prescriptive user begins to run when the use commences, regardless of its effect on the lower owner. *Cape v. Thompson*, 11 Tex. Civ. App. 681, 53 S. W. 368 (1899); 2 FARNHAM, WATERS AND WATER RIGHTS § 541a (1904); see Lewis, *Injunctions Against Nuisances and the Rule Requiring the Plaintiff to Establish his Right at Law*, 56 U. OF PA. L. REV. 289, 311 n. (1908).

20. 289 U. S. 334, 337, 338 (1933).

21. See McClintock, *Discretion to Deny Injunction against Trespass and Nuisance*, 12 MINN. L. REV. 565, 569 (1928); Note, *The Trend — To Balance the Injuries*, 4 S. CAR. L. Q. 540 (1952).

22. RESTATEMENT, TORTS § 941, comment a (1939).

23. See *Storey v. Central Hide & Rendering Co.*, 148 Tex. 509, 515, 226 S. W. 2d 615, 619 (1950); Note, 4 S. CAR. L. Q. 540, 542 (1952).

probably the result of a change in the attitude of the courts themselves from a *laissez faire* philosophy, with its emphasis on strict protection of real property rights,²⁴ toward a jurisprudential approach along the lines of Dean Pound's theory of social interests,²⁵ an approach which recognizes the importance of social interests other than real property rights, or what Dean Pound refers to as the security of acquisitions, and likewise recognizes the necessity of balancing these social interests when they conflict, with preference being given to those interests that weigh most heavily in our present civilization.²⁶ An examination of the balance of convenience cases over the past century shows a similar trend.

Forgetting that the English chancery court in its inception acted as a balance against the overly technical application of common law rules, such as Aristotle's *epieikeia* or equity was designed "as a correction of law, where law is defective by reason of its universality,"²⁷ the nineteenth century chancellors, succumbing to the demands of predictability, pushed the principle of *epieikeia* into the background, leading to what Dean Pound characterized in 1905 as the decadence of equity.²⁸ During this period the idea that the chancellor could balance the relative hardships of the parties, even when a strong public interest dictated such a course, was usually rejected.²⁹ As Pomeroy stated at this time, "The weight of authority is against allowing a balance of injury as a means of determining the propriety of issuing an injunction."³⁰

While the majority of the cases rejecting the balancing doctrine were in the field of nuisance, there were a number of water rights cases, particularly in the pollution area, which took the same strict position.³¹ It is interesting to note, however, that most of these

24. Thus Locke took the position that governments exist solely for the protection of property. LOCKE, SECOND TREATISE OF CIVIL GOVERNMENT 122, 166 (Hafner ed. 1947).

25. Pound, *A Survey of Social Interests*, 57 HARV. L. REV. 1 (1943); see Patterson, *Pound's Theory of Social Interests*, in SAYRE, INTERPRETATIONS OF MODERN LEGAL PHILOSOPHIES 558-573 (1947).

26. See PATTERSON, AN INTRODUCTION TO JURISPRUDENCE 290 (3d Minn. ed. 1949).

27. ARISTOTLE, ETHICS, Bk. V, 10, 1137b (Chase's trans., Everyman ed. 1911).

28. Pound, *The Decadence of Equity*, 5 COL. L. REV. 20 (1905).

29. *Whalen v. Union Bag Co.*, 208 N. Y. 1, 101 N. E. 805 (1913); *Walter v. McElroy*, 151 Pa. 549, 25 Atl. 125 (1892).

30. 5 POMEROY, EQUITY JURISPRUDENCE AND EQUITABLE REMEDIES § 530 (3d ed. 1905).

31. *Woodruff v. North Bloomfield Gravel Mining Co.*, 18 Fed. 753 (C. C. D. Cal. 1884); *Arizona Copper Co. v. Gillespie*, 12 Ariz. 190, 100 Pac. 465 (1909).

Whalen v. Union Bag Co., 208 N. Y. 1, 101 N. E. 805 (1913). In *Hill v. Standard Mining Co.*, 12 Idaho 223, 231, 85 Pac. 907, 908 (1906), it was said:

"It is earnestly urged by counsel for respondents that . . . it [an injunction]

so-called majority decisions were handed down in the industrial North and West, whereas three of our Southeastern States, Alabama,³² Kentucky,³³ and North Carolina,³⁴ early joined what one writer referred to as the "weak minority,"³⁵ denying relief in the absence of substantial injury to the complainant.

Today, especially in code jurisdictions in which it is recognized that injunctive relief is simply one among available remedies and therefore its denial is not necessarily a bar to other relief, the concept that the court has a discretionary power to balance the equities when determining whether to grant the injunction is again coming into ascendancy,³⁶ with the American Law Institute leading the way in endorsing this development away from the mechanical jurisprudence of the late nineteenth century.³⁷

APPLICATION OF THE DOCTRINE TO WATER CASES IN THE SOUTHEAST

Has the trend toward flexibility in the granting of injunctive relief been exemplified in water cases in the Southeastern states? In attempting to answer this question it may be well to consider the types of water rights which are subject to equitable protection. Such rights may exist in either subterranean or surface water, and these rights may be interfered with either by pollution³⁸ or by diversion,

would result in 'the depopulation of Shoshone County, the abandonment of all mining and milling therein, and the consequent bankruptcy of the inhabitants thereof'. Deplorable as this might be—if true—it furnishes no excuse for the court to shirk its responsibilities in disposing of the question before us on its merits. The law is no respecter of persons, corporations or individuals, and in its creation and enforcement reaches out and protects the lone settler in his rights, let them be ever so meager . . . The law does not measure the rights of litigants by the amount involved, nor the manner in which it may affect others not parties to the litigation".

32. *Clifton Iron Co. v. Dye*, 87 Ala. 468, 6 So. 192 (1889) (refusal of the injunction was also justified on the basis of laches); *Ulbricht v. Eufaula Water Co.*, 86 Ala. 587, 6 So. 78 (1889).

33. *Louisville & N. Ry. v. Beauchamp*, 19 Ky. L. Rep. 398, 40 S. W. 679 (1897) (judgment for damages reversed in absence of showing of injury from diversion of water).

34. *Harris v. Norfolk & W. Ry.*, 153 N. C. 542, 69 S. E. 623 (1910) (judgment for defendant in action for damages affirmed in absence of material injury from diversion).

35. Comment, 4 TEX. L. REV. 231, 232 (1926). But the leading writer in the field of water rights at the time favored this minority view, 3 KINNEY, IRRIGATION AND WATER RIGHTS 3016 (1912).

36. See Note, *The Trend—To Balance the Injuries*, 4 S. CAR. L. Q. 540 (1952).

37. RESTATEMENT, TORTS § 933 and introductory note to c. 48 (1939).

38. For a survey of the present extent of this problem see *Water Pollution in the United States*, Ser. 1, U. S. Pub. Health Serv. Pub. No. 64 (1951). See also Note, *Rights and Remedies in the Law of Stream Pollution*, 35 VA. L. REV. 774 (1949).

detention, or appropriation of the water to which complainant has a claim of right. As yet the injunction has not been widely used in the Southeast for the protection of rights in subterranean water supplies, though the conservation of such supplies is becoming a real problem;³⁹ but it has been sought in many cases to prevent pollution of surface waters, and there are a scattering of Southeastern cases involving the use of the remedy as a means of preventing diversion or appropriation of such waters.

POLLUTION CASES

In the pollution cases public interest often bulks large, since the offenders are usually municipalities or large industries intimately tied in with the economy of the jurisdiction; and in cases of this sort we should not be too surprised to find the courts refusing to grant an injunction the result of which would be to shut down an important industry or leave a city without a means of sewage disposal. The fact that a municipality, if enjoined, might obtain a right to continue its pollution through eminent domain proceedings is of course a factor in some of the decisions to balance the equities; but even in the case of private defendants, if the public interest in continued operation is strong enough the injunction has usually been denied in the more recent cases. Thus we find the Alabama Supreme Court in a 1952 case refusing to sanction injunctive relief against pollution by a limestone company on a complaint of interference by agricultural interests;⁴⁰ a 1940 Arkansas case denying injunctive relief against pollution of a stream by a barium mill;⁴¹ a 1940 Florida case balancing the equities in favor of allowing a municipality to continue polluting a stream through operation of a sewage disposal plant;⁴² and a 1934 Louisiana case refusing to

39. See Black and Eidsness, *Industrial Water Supply in Florida*, Economic Leaflets, Univ. of Fla., Vol. XI, No. 2, Jan. 1952. The authors point out that, while industry in the United States uses daily 25,000,000,000 gallons of water, of which only 5,000,000,000 gallons is ground water, Florida's two largest water-using industries, the pulp and paper mills and the phosphate industry, derive most of their water supply from wells. Because of Florida's tremendous ground water supply, no overall shortage is likely to occur, but extensive pumping of ground water may cause local shortages and concurrent legal problems. Thus withdrawals by the phosphate industry in Polk County have resulted in completely drying up Kissengen Springs, which previously had an average flow of approximately 20,000,000 gallons per day. *Ibid.* See *Springs of Florida*, Fla. Geological Bull. No. 31, p. 142 (1947).

40. *Montgomery Limestone Co. v. Bearden*, 256 Ala. 269, 54 So. 2d 571 (1951).

41. *Smith v. Magnet Cove Barium Corp.*, 212 Ark. 491, 206 S. W. 2d 442 (1947).

42. *Lakeland v. Harris*, 143 Fla. 761, 197 So. 470 (1940). The Court in this case did order the municipality to take all feasible measures to cut down the amount of pollution.

maintain the operation of a paper mill despite resulting stream pollution.⁴³

DIVERSION AND APPROPRIATION CASES

In the diversion and appropriation cases there is evidence of a similar trend toward balancing the relative hardships in determining whether injunctive relief should be granted, though with some reservations. Again, if the public interest intervenes, as when a municipal water supply is involved, the tendency, as evidenced in a 1934 Kentucky case,⁴⁴ is to refuse injunctive relief and leave the complainant to his remedy by way of damages, though some jurisdictions, including Virginia, have stayed injunctive relief only on condition that the municipality proceed to obtain the needed water rights through eminent domain proceedings.⁴⁵

When only private parties are involved, however, and the basic interest of the public is not apparent, our courts have been much more reluctant to consider the possibility of balancing the equities; and in cases of this sort both the Georgia⁴⁶ and West Virginia⁴⁷ courts have taken a strong position against the right of the court to weigh the relative hardships. It seems only fair to add, however, that West Virginia, along with South Carolina,⁴⁸ still apparently considers herself bound by the traditional imperative approach which denies the court's power to balance the equities in any case in which injunctive relief is applied for,⁴⁹ whether that case involves the in-

43. *Young v. International Paper Co.*, 179 La. 803, 155 So. 231 (1934); *cf. National Container Corp. v. State*, 138 Fla. 32, 189 So. 4 (1939) (same result accomplished on different legal basis).

44. *Kentucky Elec. Devel. Co. v. Wells*, 256 Ky. 203, 75 S. W. 2d 1088 (1934).

45. *Purcellville v. Potts*, 179 Va. 514, 19 S. E. 2d 700 (1942); *accord, Mayor of Baltimore v. Brack*, 175 Md. 615, 3 A. 2d 471 (1939); *Hartzell v. Village of Hambury*, 155 Misc. 345, 279 N. Y. Supp. 650 (Sup. Ct. 1935), *aff'd*, 248 App. Div. 667, 289 N. Y. Supp. 910 (4th Dep't), *modified*, 272 N. Y. 234, 5 N. E. 2d 801, *modified*, 273 N. Y. 476, 6 N. E. 2d 411 (1936).

46. *Robertson v. Arnold*, 182 Ga. 664, 186 S. E. 806 (1936); *City of Elberton v. Hobbs*, 121 Ga. 749, 49 S. E. 779 (1905); *Chestatee Pyrites Co. v. Cavenders Creek Gold Mining Co.*, 118 Ga. 255, 45 S. E. 267 (1903).

47. *McCausland v. Jarrell*, 68 S. E. 2d 729 (W. Va. 1951). The court does say that it will balance the equities in an appropriate case, but on the facts as brought out in the dissenting opinion it would be hard to find a more appropriate case.

48. *Davis v. Palmetto Quarries Co.*, 212 S. C. 496, 48 S. E. 2d 329 (1948); *Williams v. Haile Gold Mining Co.*, 85 S. C. 1, 66 S. E. 117 (1909); *State v. Columbia Water Power Co.*, 82 S. C. 181, 63 S. E. 884 (1909). For recent dicta that the court may balance the equities in an appropriate case see *Forest Land Co. v. Black*, 216 S. C. 255, 266, 57 S. E. 2d 420, 426 (1950); *Sprouse v. Winston*, 212 S. C. 176, 185, 46 S. E. 2d 874, 878 (1948).

49. *Board of Comm'rs v. Elm Grove Mining Co.*, 122 W. Va. 442, 9 S. E. 2d 813 (1940); *Ritz v. Woman's Club*, 114 W. Va. 675, 173 S. E. 564 (1934) (both cases admit the possibility of using the doctrine in an extremely meritorious

vasion of water rights or any other tort against which injunctive relief may be sought.⁵⁰

PLANNING FOR THE FUTURE

With the advent of modern portable irrigation systems and pumping machinery, the possibilities for utilizing available water supplies in the Southeast have increased tremendously. Whereas in the past we have generally considered our water resources to be more than adequate, we may now be approaching a situation where our supply will fall short of meeting the demands placed upon it. In this new situation new means must be devised to handle the legal problems involved in obtaining maximum benefits from the water available to us.

To point up the growing seriousness of this problem, it may be appropriate to examine some recent developments in Kentucky and South Carolina. Data gathered in Kentucky by the United States Weather Bureau shows that in only two out of every five years is the rainfall so distributed as to produce a good crop yield.⁵¹ In the other three the crop yield can be increased tremendously by irrigation. For instance, in 1951, which was not considered a drought year, farmers who used irrigation were able to double their tobacco yield as well as greatly improve the quality of their crop.⁵² Since the amount of acreage that can be placed in tobacco is rigidly controlled by federal regulations, the practice of irrigating to increase crop yield will no doubt mushroom rapidly. A recent South Carolina survey shows that in that state demand for water for industrial uses has increased fourfold since 1945, and the demand for agricul-

case). One early Georgia case indicates that the court considers itself to have some discretion to balance the equities, at least in the limited situation in which the evidence of complainant and defendant is in practical equipoise. *Everett v. Tabor*, 119 Ga. 128, 46 S. E. 72 (1903).

50. In Mississippi, on the other hand, while the doctrine has apparently not yet been considered in connection with water cases, dicta in several recent decisions indicate a more liberal approach toward it in appropriate cases; see *Smith v. Fairchild*, 193 Miss. 536, 547, 10 So. 2d 172, 174 (1942); *Williams v. Montgomery*, 184 Miss. 547, 556, 186 So. 302, 304 (1939); *Reber v. Illinois Cent. R. R.*, 161 Miss. 885, 898, 138 So. 574, 577 (1932). Early North Carolina and Tennessee cases indicate that those states may also be prepared to take a liberal stand on the application of the doctrine. See *Brown v. Carolina C. R. R.*, 83 N. C. 128 (1880); *Lassater v. Garrett*, 63 Tenn. 291, 4 Baxt. 17 (1874).

51. Note, 40 Ky. L. J. 424 (1952), quoting Thaxton, *Irrigation Study of Pastures in Kentucky*, Feb. 17, 1951.

52. *Ibid.*

tural purposes has doubled in the same period.⁵³ Similar figures might be produced for most of our other Southeastern states.⁵⁴

PRESENT STATE OF AMERICAN LAW

Before discussing possible solutions of this problem of obtaining maximum use of available water supplies, it may be well to consider the three different judicial approaches to use of water from running streams.⁵⁵ The oldest is the English "natural flow" rule, under which an upper riparian owner may not alter the natural flow of a stream except in so far as he makes use of the water for purely domestic purposes. This approach was introduced into Anglo-American law through the writings of Kent and Story.⁵⁶ It was adopted in England at a time when the use of water for industry and irrigation was still on a very minor scale, and prevention of damage to streams through pollution was the predominant problem.⁵⁷ In such an economy the rule was adequate to meet the social problems of the time. This natural flow rule received early acceptance in the eastern United States⁵⁸ but was almost at once rejected in the Western and Rocky Mountain states in favor of the second doctrine, that of "prior appropriation".

Under the prior appropriation doctrine, which had its inception in the needs of the early gold miners for large quantities of water to carry on their operations,⁵⁹ a riparian or other owner could "ap-

53. See BUSBY, *THE BENEFICIAL USE OF WATER IN SOUTH CAROLINA*, A PRELIMINARY REPORT 6 (1952).

54. See Black and Eidsness, *supra* note 39.

55. For a more detailed discussion of these three theories relative to the use of water from watercourses see Busby, *supra* p. 106, particularly pp. 107-109.

56. The first authoritative statement of the rule is found in the opinion of Mr. Justice Story in *Tyler v. Wilkinson*, 24 Fed. Cas. 472, No. 14,312 (C. C. C. R. I. 1827). Story's decision was buttressed by Kent a year later in 3 KENT'S COMM. 353 *et seq.* (1828). See *Wiel, Waters: American Law and French Authority*, 33 HARV. L. REV. 133 (1919). For a recent Supreme Court case outlining the background of the doctrine, see *United States v. Gerlach Live Stock Co.*, 339 U. S. 725, 744-745 (1950).

57. *Mason v. Hill*, 5 B. & Adol. 1, 110 Eng. Rep. 692 (1833); *Wood v. Wand*, 3 Ex. 784, 154 Eng. Rep. 1047 (1849); *Miner v. Gilmour*, 12 Moore C. P. 131, 14 Eng. Rep. 861 (1858); see *Wiel, supra* note 56, at 144-146.

58. *Stein v. Burden*, 29 Ala. 127 (1856); *Roberts v. Martin*, 72 W. Va. 92, 77 S. E. 535 (1913). The Alabama court quickly shifted its emphasis to the reasonable use aspect of Kent's theory; see *Ulbricht v. Eufaula Water Co.*, 86 Ala. 587, 6 So. 78 (1889). West Virginia now apparently also stresses that aspect; see *McCausland v. Jarrell*, 68 S. E. 2d 729, 740 (W. Va. 1951). But the natural flow rule has also recently been reiterated in some of our Southern states, *Robertson v. Arnold*, 182 Ga. 664, 186 S. E. 806 (1936); *Purcell v. Potts*, 179 Va. 514, 19 S. E. 2d 700 (1942); cf. *Harris v. Norfolk & Western Ry.*, 153 N. C. 542, 69 S. E. 623 (1910).

59. POMEROY, *RIPARIAN RIGHTS* §§ 14-15 (1887); see *Wiel, Fifty Years of Water Law*, 50 HARV. L. REV. 252, 254 (1936).

appropriate" the right to use as much water as he could successfully divert and beneficially employ, so long as his appropriation was prior to that of others, in which case his right, on a sort of first-come, first-served basis, might in an extreme case extend to exhausting the flow of the stream.⁶⁰ This doctrine is now confirmed by legislation in most Western states.⁶¹

The third approach is through the theory of "reasonable use" under which a riparian complainant is entitled to protection when defendant's diversion unreasonably interferes with complainant's use of the water.⁶² Under this doctrine emphasis is placed on full use of the available water supply, and each riparian owner is entitled to make beneficial use of the water for any purpose to the extent that his use does not unreasonably interfere with the beneficial uses of others.

POSSIBLE SOLUTIONS

The problem of obtaining maximum use of available water supplies in the Southeastern states can be met in two ways. The first way, suggested in the South Carolina Preliminary Report,⁶³ is through legislative repudiation of the antiquated natural flow theory and the substitution in its stead of the doctrine of prior appropriation under the direction and control of a state administrative agency.⁶⁴

60. 44 COL. L. REV. 437, 438 (1944).

61. For excellent summaries of the water law doctrines of the 17 Western states, with constitutional and statutory citations, see 3 REPORT OF THE PRESIDENT'S WATER RESOURCES POLICY COMMISSION, WATER RESOURCES LAW, APP. 3 (1950).

62. See 4 RESTATEMENT, TORTS c. 41, Topic 3, Scope Note (1939). For a recent southeastern application of the doctrine see *Dunlap v. Carolina Power & Light Co.*, 212 N. C. 814, 195 S. E. 43 (1938).

63. See BUSBY, THE BENEFICIAL USE OF WATER IN SOUTH CAROLINA, 3 PRELIMINARY REPORT (1952).

64. See Busby, *supra* note 63, at 51-52. Such legislation would probably include provisions for injunctive enforcement. Would the balance of convenience doctrine be applicable as a discretionary judicial check on this enforcement machinery? The Texas court has held in *Biggs v. Red Bluff Water Power Control Dist.*, 131 S. W. 2d 274 (Tex. Civ. App. 1939), a case involving the enforcement of an anti-pollution statute, that the court cannot refuse relief "on equitable considerations". In other words, the discretion provided by the balance of convenience doctrine has no place in injunctive law enforcement. But the Tennessee court in a series of nuisance cases has held that when a statute provides for an injunction or damages the court has the authority to balance the hardships and deny injunctive relief, leaving the complainant to his alternative statutory remedy by way of damages. *Madison v. Ducktown Sulphur, Copper & Iron Co.*, 113 Tenn. 331, 83 S. W. 658 (1904); *Union Planters' Bank & Trust Co. v. Memphis Hotel Co.*, 124 Tenn. 649, 139 S. W. 715 (1911). As yet this problem as to the existence of judicial discretion has apparently not been faced by our courts in connection with the enforcement of legislation affecting the use of water. It is submitted that when the problem does arise adoption of the more liberal view of the Tennessee court in the nuisance cases would be most in consonance with the modern balance of convenience problem

This approach may provide the most feasible solution in those jurisdictions, such as South Carolina, that have apparently rejected the balance of convenience doctrine as a means of preventing injunctions against minor violations of riparian rights.⁶⁵

There is a second approach possible in those jurisdictions in which the balance of convenience doctrine is available and the law concerning appropriation of surface waters is not too rigidly bound up with the early common law rule that all riparian owners are entitled to the natural flow of a stream, whether they have any need for such flow or not. This is to settle such disputes on the basis of the doctrine of reasonable use, which affords the upper owner the right to a beneficial use when there is no appreciable damage to the lower owner,⁶⁶ or in some cases when the lower owner is damaged but the overwhelming utility of the competing use militates against cutting off that use.⁶⁷ A sensible application of the balance of convenience doctrine may be a very useful adjunct in the development and application of the reasonable use rule in those jurisdictions that are free to adopt it.

LESSONS FROM FEDERAL LAW

It may help to examine briefly the development of the law as applied by the Supreme Court of the United States in cases involving disputes over the use of water in interstate streams. This examination should be doubly rewarding, since the remedy sought in the

in the Southeast. But if the question should arise as a result of an administrative request for injunctive enforcement of an agency order, the discretion of the agency may replace the traditional discretion of the enforcing court. This presents a problem beyond the scope of this article. See DAVIS, ADMINISTRATIVE LAW § 240 (1951).

65. See note 48 *supra*. In this connection, however, a judicious application of the *de minimis* principle might provide the court with some discretion in such cases.

66. This doctrine was developed from one aspect of the natural flow rule as announced by Story and Kent, and the first American case applying the reasonable use doctrine cites Story's opinion in *Tyler v. Wilkinson*, 24 Fed. Cas. 472, 431 No. 14,312 (C. C. R. I. 1827) and KENT'S COMMENTARIES as authority. *Elliot v. Fitchburg R. R.*, 10 Cush. 191, 196 (Mass. 1852). See note 64, *supra*. The doctrine has been recently restated in *Dunlap v. Carolina Power & Light Co.*, 212 N. C. 814, 195 S. E. 43 (1938).

67. *Dumont v. Kellogg*, 29 Mich. 420 (1874) (stream depletion from erection of dam); *Minnesota Loan & Trust Co. v. St. Anthony Falls Water Power Co.*, 82 Minn. 505, 85 N. W. 520 (1901) (minor change in channel below dam); *How v. Parsons*, 28 Vt. 459 (1856) (tanbark residue from tannery discharged into stream). See 3 REPORT OF THE PRESIDENT'S WATER RESOURCES POLICY COMMISSION, WATER RESOURCES LAW 161-162 (1950), to the effect that the present legislative trend in ground water law is toward the adoption of the reasonable use doctrine.

great majority of interstate suits has been the injunction⁶⁸ and the Supreme Court has frequently applied the balance of convenience doctrine in working out its concepts of the law as applied to the use of interstate waters.⁶⁹

The Supreme Court has usually handled such cases on the basis of equitable apportionment, a doctrine closely allied to that of reasonable use. As Mr. Justice Holmes put it in the case of *New Jersey v. New York*,⁷⁰

"A river is more than an amenity, it is a treasure. It offers a necessity of life that must be rationed among those who have power over it . . . The different traditions and practices in different parts of the country may lead to varying results but the effort always is to secure an equitable apportionment without quibbling over formulas."

If the dispute is between states following the prior appropriation doctrine the Court has felt free to apply that doctrine in the settlement of the dispute,⁷¹ but even in cases of this sort the Court does not consider itself bound by the municipal law of such states⁷² and has turned to the equitable apportionment doctrine in cases in which

68. *Kansas v. Colorado*, 320 U. S. 383 (1943); *Wyoming v. Colorado*, 260 U. S. 573 (1936); *Washington v. Oregon*, 297 U. S. 517 (1936); *Arizona v. California*, 283 U. S. 423 (1931); *New Jersey v. New York*, 283 U. S. 336 (1931); *Connecticut v. Massachusetts*, 282 U. S. 660 (1931); *Wisconsin v. Illinois*, 281 U. S. 179 (1930); *Wisconsin v. Illinois*, 278 U. S. 367 (1929); *Tennessee v. Arkansas*, 249 U. S. 588 (1919); *Kansas v. Colorado*, 206 U. S. 46 (1907); *Missouri v. Illinois*, 200 U. S. 496 (1906); *Kansas v. Colorado*, 185 U. S. 125 (1902); *Missouri v. Illinois*, 180 U. S. 208 (1901); *South Carolina v. Georgia*, 93 U. S. 4 (1876).

69. Application of the doctrine appears evident in the following cases, though the doctrine is not always referred to by the Court: *Kansas v. Colorado*, 320 U. S. 383 (1943); *Washington v. Oregon*, 297 U. S. 517 (1936); *New Jersey v. New York*, 283 U. S. 336 (1931); *Connecticut v. Massachusetts*, 282 U. S. 660 (1931); *Wisconsin v. Illinois*, 281 U. S. 179 (1930); *Kansas v. Colorado*, 206 U. S. 46 (1907); *Missouri v. Illinois*, 200 U. S. 496 (1906); *Kansas v. Colorado*, 185 U. S. 125 (1902).

70. *New Jersey v. New York*, 283 U. S. 336, 342-343 (1931). See also 3 REPORT OF THE PRESIDENT'S WATER RESOURCES POLICY COMMISSION, WATER RESOURCES LAW 58-64 (1950).

71. *Wyoming v. Colorado*, 259 U. S. 419 (1922). The argument supporting the application of the doctrine is found at p. 470.

72. As the Court put it in a dispute between Connecticut and Massachusetts, both of which recognized the natural flow theory, "For the decision of suits between States, federal, state and international law is considered and applied by this court as the exigencies of the particular case may require. The determination of the relative rights of contending states in respect of the use of streams flowing through them does not depend upon the same considerations and is not governed by the same rules of law that are applied in such states for the solution of similar questions of private right . . . And, while the municipal law relating to like questions between individuals is to be taken into account, it is not to be deemed to have controlling weight". *Connecticut v. Massachusetts*, 282 U. S. 660, 670 (1931).

it considered that this doctrine provided a more equitable basis for the settlement of the dispute. The most recent of these cases is *Kansas v. Colorado*,⁷³ decided in 1943. The Court applied this version of the reasonable use doctrine and balanced the equities in favor of allowing Colorado to continue diversion of a considerable portion of the Arkansas River when Kansas failed to show that such diversion substantially injured Kansas users.⁷⁴

Although these federal cases are of persuasive value only in most intrastate controversies as to the right to divert and use stream waters, it is well to remember that if the water in question is being diverted from a navigable stream the Federal Government rather than the state may have the last say as to the continuance of the diversion. If the appropriation affects the navigability of an interstate stream it may be enjoined at the behest of the United States;⁷⁵ and this is true even though the proposed diversion is in the non-navigable upper reaches of the stream.⁷⁶ Authority to allow diversion of the waters of such streams rests with the Secretary of the Army, and it is apparently within his discretion to say how much of the water of navigable streams may be diverted.⁷⁷ In these cases, therefore, the discretion of the Secretary replaces the discretion of the chancellor.

If the stream, though navigable, lies wholly within a state, the mere fact of navigability does not vest jurisdiction in the Secretary, and the waters of the stream are subject to the state's control until the Federal Government specifically assumes jurisdiction through Congressional legislation asserting the reserved authority of the Federal Government over intrastate navigable streams.⁷⁸ One reason for assumption of federal authority over intrastate navigable streams is for flood control purposes,⁷⁹ as, for example, the present Central and Southern Florida Flood Control Project.⁸⁰ Irrigation water

73. 320 U. S. 383 (1943).

74. *Id.* at 398. In some of the cases equitable relief has been refused on other discretionary grounds, e. g., *City of New York v. Pine*, 185 U. S. 93 (1902). The use of the conditional injunction as a means of effecting a complete settlement of the problem is also illustrated in this case.

75. *Sanitary Dist. of Chicago v. United States*, 266 U. S. 405 (1925).

76. *United States v. Rio Grande Irr. Co.*, 174 U. S. 690, 708 (1889).

77. 30 STAT. 1151 (1899), 33 U. S. C. § 403 (1946), *Ilhenny v. Broussard*, 172 La. 895, 135 So. 669 (1931).

78. *Pound v. Turck*, 95 U. S. 459 (1878); *Egan v. Hart*, 165 U. S. 188 (1897); accord, *Leitch v. Chicago*, 41 F. 2d 728 (7th Cir.), cert. denied, 282 U. S. 891 (1930).

79. 49 STAT. 1570 (1936), 33 U. S. C. § 701a (1946); 58 STAT. 887 (1944), 33 U. S. C. § 701-1 (1946), as amended, 61 STAT. 501 (1947), 33 U. S. C. § 701-1 (Supp. 1952). See 3 REPORT, *supra* note 70, c. 4.

80. See *Summary of the Central and Southern Florida Flood Control Project*, Water Survey and Research Paper No. 4, Fla. State Bd. of Conservation,

made available by such projects comes within the jurisdiction of the Secretary of the Army.⁸¹

Concluding this consideration of federal water law, there is one more valuable lesson to be studied by our Southeastern states. That lesson may be drawn from the pattern of settlement of interstate water disputes. We have already briefly considered the judicial handling of this subject. The Constitution, however, provides for another method of working out such disputes—through interstate agreements or compacts.⁸² Such compacts, worked out between the states, along with machinery for their application, usually provide a much more satisfactory method of settlement than does sporadic litigation over isolated points of disagreement.⁸³ Similarly, in interstate disputes contractual arrangements between the parties will often provide the most workable solution, especially if sufficient foresight is exercised to work out such arrangements as a part of planning for operations requiring extensive use of water.⁸⁴ And it is well to remember that, if it becomes necessary to seek judicial enforcement of agreements through a suit for specific performance, the balance of convenience doctrine will be available in most of our jurisdictions as a tempering factor in the granting of such relief.⁸⁵

THE CALIFORNIA EXPERIENCE

It must be realized that the doctrine of reasonable use has one serious practical defect. While under it an injunction will be refused to one not actually or prospectively using the available water, if lower riparian owners should decide to make such use and should take definite steps toward that end, they would then be entitled to

Aug. 1950. For a note on the state law related to this problem see Note, *Surface Water Drainage*, 2 U. OF FLA. L. REV. 392 (1949).

81. 58 STAT. 890 (1944), 33 U. S. C. § 709 (1946), as amended, 61 STAT. 501 (1947), 33 U. S. C. § 709 (Supp. 1952).

82. U. S. CONST. Art. I, § 10, "No State shall, without the consent of the Congress . . . enter into any agreement or Compact with another State . . ." Congress has given blanket consent to the states to negotiate compacts for the control of pollution, 62 STAT. 1155, 1156 (1946), 33 U. S. C. 466a(c) (Supp. 1952). See Watson, *Ohio River Compact and Other Interstate Agreements*, 41 J. AM. WATER WORKS ASS'N 18 (1949). In *Hinderlider v. LaPlatte River & Cherry Creek Ditch Co.*, 304 U. S. 92, 106 (1938), the Court points out that Congress had as of 1938 consented to 15 compacts for apportionment of waters in interstate streams. See also 3 REPORT, *supra* note 70, at 64-70.

83. See Frankfurter and Landis, *The Compact Clause of the Constitution, A Study in Interstate Adjustments*, 34 YALE L. J. 685, 707 (1925).

84. See Powell and Bacon, *Magnitude of Industrial Demand for Process Water*, 42 J. AM. WATER WORKS ASS'N 777, 785 (1950). Such planning may be encouraged by wise state legislation, *e. g.*, through the authorization of cooperative irrigation districts, as in Florida. See FLA. STAT. §611.38 (1951).

85. See note 11 *supra*.

a fair share of the water, even though this might seriously impede beneficial uses already being made by upper riparian owners.⁸⁶ Fear of being cut off from such uses in turn may discourage upper riparians from establishing extensive irrigation systems or using the water to irrigate adjacent riparian lands and thus result in failure to make full use of the available supply.⁸⁷

Application of the prior appropriation doctrine can solve this problem, since once an appropriator begins diverting water of a stream, he gains a right to continue indefinitely. Unless, however, some method is provided for divesting a prior appropriator of his right to continue diversions when changed conditions demand the prior appropriation doctrine may eventually become as stifling to progress as the older natural flow theory.⁸⁸ The California experience with the latter doctrine may serve to illustrate this point.⁸⁹

In California early judicial application of the natural flow theory in favor of lower riparian owners who required the full flow of mountain streams in spring and early summer for flooding and fertilizing their lowland pastures had resulted in shutting down the large hydraulic gold mining industry of the 1880's.⁹⁰ But by the 1920's it had become apparent that requiring that all the water be left in

86. Thus in an earlier decision on the Kansas and Colorado dispute the Supreme Court, while denying Kansas equitable relief, provided that its petition could be renewed upon a showing of real injury. *Kansas v. Colorado*, 206 U. S. 46, 117, 118 (1907).

87. See BUSBY, *supra* note 53, at ix. This difficulty can be obviated to some extent by contractual arrangements between the riparians similar to the interstate water compacts. See p. 174 *supra*.

88. The validity of this criticism is recognized by A. P. Black, Head Professor of Chemistry, Univ. of Florida, a former president of the American Waterworks Association, who supports legislative adoption of the prior appropriation doctrine in the area of ground water regulation. As Black puts it, in *Basic Concepts in Ground Water Law*, 39 J. AM. WATER WORKS ASS'N 989, 994 (1947), "This principle [of prior appropriation] without question offers the greatest protection to large investors whose appropriations are dependent upon an adequate supply of water. On the other hand, it inevitably leads at times to the use of water by a senior appropriator which would have been better used by a junior, and we are faced again with the fact that the rule of reasonable use must have a place in the administration of the doctrine".

89. For an excellent article on this experience see Wiel, *Fifty Years of Water Law*, 50 HARV. L. REV. 252 (1936).

90. *Woodruff v. North Bloomfield Gravel Mining Co.*, 18 Fed. 753, 756, 774 (C. C. D. Cal. 1884); *People v. Gold Run Ditch & Mining Co.*, 66 Cal. 138, 4 Pac. 1152 (1884). The crux of these "debris" cases was not so much diversion or appropriation as the prevention of pollution, but another famous case of the same era, *Lux v. Haggin*, 69 Cal. 255, 4 Pac. 919 (1884), *aff'd*, 89 Cal. 255, 10 Pac. 674 (1886), led to the recognition of the strict natural flow theory as the law governing private riparians in California. The court, in a 200-page opinion, rejected the prior appropriation doctrine as to such owners, preferring to protect the "property rights" of the lower riparians without regard to relative value of the use to which the water was being put. See Wiel, *Fifty Years of Water Law*, 50 HARV. L. REV. 252, 254-259 (1936).

the streams for the valley cattle interests was wasteful when much of it could be better utilized for year-round irrigation in the uplands. The upshot was a constitutional amendment in 1928 declaring that "reasonable use" was the test for use of water resources in California.⁹¹

It was, of course, predicted that the new doctrine would be impossible of administration,⁹² but by taking the position that *reasonable use* does not necessarily mean *equal use* by all riparians,⁹³ and refusing injunctions in favor of damages on the balance of convenience theory,⁹⁴ or applying the *de minimis* principle to "nuisance value" claims,⁹⁵ the California Court, using a reference procedure under which it obtains the advice of the State Department of Public Works through the State Engineer in difficult cases,⁹⁶ has made the amendment work. Of course, if the injunction is refused the injured party always has his action at law for damages, but parties with no real injury have found the juries no more sympathetic than the chancellors.⁹⁷

91. CAL. CONST. Art. XVI, § 3; see *Peabody v. Vallejo*, 2 Cal. 2d 351, 360, 40 P. 2d 486, 490 (1935). This rule of reasonable use is modified to the extent that California continues to recognize the right of prior appropriation as applied to waters of streams in the public domain, a right established by legislation in 1872. In addition, excess flow in watercourses above the quantities to which riparian and other lawful rights attach have been held to be public waters of the state and hence subject to its control and regulation. *Meridian v. San Francisco*, 13 Cal. 2d 424, 90 P. 2d 537 (1939). See 3 REPORT, *supra* note 70, at 715-721.

92. "If every person owning land over a water-bearing area shall be permitted to share with every other person wherever he shall see fit to drive his well, it is very probable, if not quite certain, that as the process of development goes on, many, if not all, will find themselves restricted in their use of the water they have brought to the surface to the extent of ruination". *Justesen v. Olsen*, 86 Utah 158, 169-170, 40 P. 2d 802, 807 (1935).

93. *Peabody v. Vallejo*, 2 Cal. 2d 351, 375, 40 P. 2d 486, 495 (1935). The Supreme Court has taken a similar position concerning the application of the equitable apportionment doctrine in the interstate cases. As the Court put it in *Connecticut v. Massachusetts*, 282 U. S. 660, 670 (1931): "... such disputes are to be settled on the basis of equality of right. But this is not to say that there must be an equal division of the waters of an interstate stream among the states through which it flows. It means that the principles of right and equity shall be applied having regard to the 'equal level or plane on which all states stand, in point of power and right, under our constitutional system' and that, upon a consideration of all the pertinent laws of the contending States and all other relevant facts, this Court will determine what is an equitable apportionment of the use of such waters". See *Wiel, Fifty Years of Water Law*, 50 HARV. L. REV. 252, 279 (1936), *Theories of Water Law*, 27 HARV. L. REV. 530, 536, 540 (1914).

94. *Peabody v. Vallejo*, *supra* note 93; *Collier v. Merced Irr. Dist.*, 213 Cal. 554, 2 P. 2d 790 (1931).

95. *Chow v. Santa Barbara*, 217 Cal. 673, 22 P. 2d 5 (1933); see *Wiel, Fifty Years of Water Law*, 50 HARV. L. REV. 252, 286 (1936).

96. CAL. WATER CODE §§ 2000-2050; see *Waldo, Evaluation of California Water Right Law*, 18 So. CALIF. L. REV. 267, 268-269 (1945).

97. *Wiel, Fifty Years of Water Law*, 50 HARV. L. REV. 252, 288, n. 93 (1936).

CONCLUSION

Any system of water law, if it is to serve the Southeast over the years, must be sufficiently flexible to adjust itself to the changing social needs of the times. Inability to so adjust the natural flow doctrine in California led to its downfall in that state. It had provided certainty at the expense of flexibility or *epieikia*, and, like other mechanical concepts of jurisprudence, it eventually fell of its own weight.

Perhaps a new version of the prior appropriation rule, applied under the guidance of a wise administrator, may be the solution in states like South Carolina and Georgia, where the balance of convenience doctrine is not available as a tool to aid in developing the reasonable use theory.⁹⁸ But one thing is certain: flexibility is essential if we are to build a system of water law that will stand for future generations. The reasonable use theory allows for necessary revisions.⁹⁹ Moreover, the California experience has demonstrated that the reasonable use theory, applied by a judiciary working with a technically qualified state agency and free to control that theory through the balance of convenience doctrine, can provide a workable solution of the growing demand.¹⁰⁰ It would, therefore, seem reasonable to conclude that, in those of our Southeastern states where the balance of convenience doctrine is now accepted, that doctrine can become a most valuable tool in the construction of a sound water law keyed to the demands of a modern democratic society.

98. See notes 46, 48 *supra*.

99. *New Jersey v. New York*, 283 U. S. 336, 348 (1931); see 2 *WIEL, WATER RIGHTS IN THE WESTERN STATES* §§ 752, 769 *et seq.* (3d ed. 1911). It may be argued that the prior appropriation theory also allows for revision, inasmuch as appropriative rights may be lost by non-use, but loss by non-use and surrender of such rights in favor of a more reasonable use in view of changed social conditions are two entirely different methods of change.

100. A complete revision of local water law is probably unnecessary in most of our Southeastern states, where water supplies are relatively abundant. A more likely development is legislative revision as applied to certain critical areas where shortages are likely to occur. Such statutes might well be patterned after recent ground water legislation in New Jersey and some of our Western states. See ARIZ. CODE ANN. §§ 75-145 *et seq.* (Cum. Supp. 1939); NEV. COMP. LAWS §§ 7993.11-7993.21 (Supp. 1949); N. J. STAT. ANN. tit. 14, §§ 4A-1 to 4A-4 (). See also *Current Developments in Ground Water Law*, 41 J. AM. WATER WORKS ASS'N 1002 (1949). If such area-type legislation is enacted, provision for reasonable use in critical areas under the immediate supervision of a state water control commission would seem more in harmony with existing water law in the Southeast, and consequently more likely of enactment, than a change to the prior appropriation doctrine.

ADDENDUM

RIPARIAN LANDS

Should the courts and legislatures in the Southeastern states have under consideration defining riparian lands and consider limiting these to the smallest tract held under one title in the chain of title leading to the present owner, then the following citations may be of some help:

It appears that the first statement of this limitation in the form above given was made by the California Supreme Court, in *Rancho Santa Margarita v. Vail*, 11 Calif. (2d) 501, 529, 81 Pac. (2d) 533 (1938). However, much earlier, Wiel on Water Rights, sec. 771, states that the California decisions "lean toward holding the extent of riparian land to the smallest parcel touching the stream in the history of the title while in the hands of the present owner". This was written in 1911.

The statement in the *Santa Margarita* case, *supra*, however, is a logical summation of the results of various California decisions. The court in that case cited only one authority — *Boehmer v. Big Rock Irr. Dist.*, 117 Calif. 19, 48 Pac. 908, in which 14 quarter-sections of public land were granted to the same party, but by separate patents, each based on a separate entry. Some parcels were contiguous to a stream; others were contiguous to the (riparian) parcels but not to the stream. The court held that for the purpose of determining riparian rights, there were 14 distinct tracts, and that "mere contiguity cannot extend a riparian right which is appurtenant to one quarter section to another, though both are now owned by the same person". The court relied on *Lux v. Haggin*, 69 Calif. 255, 424-425, 10 Pac. 674, 773-774 (1886), wherein it was held that certificates of purchase issued by the California State Land Office were admissible as showing ownership of land riparian to a watercourse, but that "All the sections or fractional sections mentioned in any one certificate constitute a single tract of land. If, however, lands have been granted by patent, and the patent was issued on the cancellation of more than one section, the patent can operate by relation (for the purpose of this suit) to the date of those certificates only, the lands described in which border on the stream". This has been relied upon in subsequent cases as a holding that the riparian right extends only to land embraced within a single grant from the government, and that such grant establishes the initial riparian title; and

leading to the conclusion that annexation of a detached parcel to a parcel contiguous to the stream cannot extend the riparian right of the latter even if physical conditions were favorable to use of the water on the previously detached parcel.

Wiel severely criticizes the reliance upon *Lux v. Haggin*, *supra*, for this principle, and strongly disapproves of the principle, which he says did not exist either at the common law or the civil law. See particularly secs. 770-772. Notwithstanding his disapproval, and the esteem in which his work has been generally held by the California Supreme Court, that court has since reaffirmed its adherence to the principle. (See *Miller & Lux v. James*, 180 Calif. 38, 51, 179 Pac. 174, 180 (1919); *Title Insurance & Trust Co. v. Miller & Lux*, 183 Calif. 71, 82, 190 Pac. 433, 437 (1920).)

A riparian tract in California, then, cannot exceed the original grant from the government, regardless of watershed limitations. It can be reduced from the area originally so granted, but cannot be extended after a reduction. This rule is based upon various decisions of the California courts, of which some important ones follow:

It is stated in *Anaheim Union Water Co. v. Fuller*, 150 Calif. 327, 331, 88 Pac. 978 (1907), that:

If the owner of a tract abutting on a stream conveys to another a part of the land not contiguous to the stream, he thereby cuts off the part so conveyed from all participation in the use of the stream and riparian rights therein, unless the conveyance declares the contrary. Land thus conveyed and severed from the stream can never regain the riparian right, although it may thereafter be reconveyed to the person who owns the part abutting on the stream, so that the two tracts are again held in one ownership. * * *

The finality of such severance is repeated in *Rancho Santa Margarita v. Vail*, 11 Calif. (2d) 501, 538, 81 Pac. (2d) 533 (1938). And see *Hudson v. Dailey*, 156 Calif. 617, 624-625, 105 Pac. 748 (1909).

Preservation of the riparian right in a parcel thus detached from a riparian tract and from contiguity to the stream may be effected by the deed of conveyance, even as against other riparian owners (*Miller & Lux v. J. G. James Co.*, 179 Calif. 689, 691-692, 178 Pac. 716 (1919). See also *Strong v. Baldwin*, 154 Calif. 150, 156-157, 97 Pac. 178 (1908); *Hudson v. Dailey*, 156 Calif. 617, 624, 105 Pac. 748 (1909).) Likewise, if the circumstances are such as to show that the parties so intended, or such as to raise an estoppel (see *Hudson*

v. Dailey, supra, at 156 Calif. 624). It is preserved in a partition decree (*Verdugo Canyon Water Co. v. Verdugo*, 152 Calif. 653, 662-663, 93 Pac. 1021 (1908); *Frazer v. Railroad Commission*, 183 Calif. 690, 693-694, 201 Pac. 921 (1921); see *Strong v. Baldwin, supra*, at 154 Calif. 156-157), even when the decree is silent as to the division of riparian rights (*Rancho Santa Margarita v. Val, supra*, 11 Calif. (2d) at 540). And preservation is effected by conveyance of the riparian right to a mutual irrigation company and sale of parcels of land to individuals, accompanied by their proportional part of the mutual company stock (*Copeland v. Fairview Land & Water Co.*, 165 Calif. 148, 161, 131 Pac. 119 (1913).)

It would follow, it would seem, that only the smallest tract held under one title in the chain of titles leading to the present owner could claim riparian rights. The reduction in area, of course, relates to recession toward the stream. The rule would not be affected if A were to purchase riparian tracts B and C from separate owners D and E. It would apply independently to tracts B and C, A being simply the "present owner" of both tracts.

In other states there are very few pertinent decisions.

A few citations follow:

Oregon — *Jones v. Conn*, 39 Oreg. 30, 39-41, 64 Pac. 855, 65 Pac. 1068 (1901), states the view that an owner of land contiguous to a stream should be entitled to riparian rights "without regard to the extent of his land, or from whom or when he acquired his title." In view of the decline and fall of riparianism in Oregon, this statement is interesting but not of practical import.

Washington — *Yearsley v. Cater*, 149 Wash. 285, 288-289, 27 Pac. 804 (1928), holds that a parcel of land detached from a riparian tract and no longer touching the stream thereby loses its riparian status; and that a tract, not riparian when title is acquired, cannot be made riparian by coming under the ownership of the owner of land lying between it and the stream.

Nebraska — Riparian rights are limited to land acquired by a single entry or purchased from the government (*Crawford Co. v. Hathaway*, 67 Nebr. 325, 93 N. W. 781 (1903); *McGinley v. Platte Valley Public Power & Irr. Dist.*, 132 Nebr. 292, 297, 271 N. W. 864 (1937).) The right cannot be enlarged or extended by acquisition of adjoining lands (*Crawford Co. v. Hathaway, supra*, 67 Nebr. at 353).

Kansas — Riparian land is confined to the watershed, but within that physical limit it is not controlled "by the accidental matter of governmental subdivisions of the land" (*Clark v. Allaman*, 71 Kans. 206, 244-245, 80 Pac. 571 (1905).)

Texas — The riparian right cannot extend beyond the original land survey, and "is restricted to land the title of which is acquired by one transaction" (*Watkins Land Co. v. Clements*, 98 Tex. 578, 885, 86 S. W. 733 (1905).