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Florida's Streams--Water Rights in a Water Wonderland

Sheldon J. Plager

Frank E. Maloney

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FLORIDA'S STREAMS — WATER RIGHTS IN A WATER WONDERLAND*

FRANK E. MALONEY and SHELDON J. PLAGER**

HISTORICAL DEVELOPMENT¹

Under the federal form of government existing in the United States, the states, as successors to the Crown, inherited the sovereign's rights in the lands and the waters of the realm. It is generally agreed that originally the King owned all the lands and waters in his proprietary capacity. He could grant these to whomever he pleased. As the law developed, a grant of a tract of land bounded by a stream or river was presumed to carry with it the contiguous land covered by the water. The theory was that, by naming a stream as a boundary, the natural inference was that the middle line of the stream was the intended boundary, that is, the line equidistant from the land on either side. The presumption could of course be rebutted by the calls of the deed.²

*This is the second in a series of articles on Florida's Water Law. It is based in part on studies made in 1956 by the Water Law Subcommittee of The Florida Bar for the Florida Water Resources Study Commission. The first article appeared in 10 U. FLA. L. REV. 119 (1957).

Although any errors of omission or commission in this article are, of course, the responsibility of the authors, credit for much of the basic research must be given to the subcommittee's research assistants, who were Dana Bullen III, Robert T. Carlile, Stephen C. McAliley, and Dewey Villareal. In addition, the authors wish to acknowledge their indebtedness to Mrs. Grace Taylor, Assistant Librarian, University of Florida College of Law, for her invaluable assistance in the additional research necessary.

**Frank E. Maloney, B.A. 1938, University of Toronto; LL.B. 1942, University of Florida; Chairman, Water Law Subcommittee of The Florida Bar, 1956-57; Chairman, Water Law and Drafting Committees of the Florida Water Resources Study Commission, 1956-57; Counsel to the Commission, 1957; Professor of Law, University of Florida, and currently Visiting Professor of Law, New York University, School of Law, New York, New York.

Sheldon J. Plager, A.B. 1952, University of North Carolina; Research Assistant, Water Law Subcommittee, Florida Water Resources Study Commission, 1956-57; Senior, College of Law, University of Florida.

¹See, generally, 1 FLA. STAT. ANN. CXX (1943); Annot., 23 A.L.R. 757 (1923); Annot., 35 L. Ed. 1225 (1901); 28 HALSBURY, LAWS OF ENGLAND 358 (1914).

²See Annot., 74 A.L.R. 597 (1931), for collected cases on the determination of boundaries of riparian lands by construction of the deed.

The riparian proprietor whose land bounded on a river or stream thus acquired exclusive ownership in the soil and water to the middle thread of the current, as well as the title to all islands lying between the mainland and the center of the stream.³ A dearth of English case law concerning the applicability of these principles to lakes and ponds at first left the matter somewhat in doubt. The absence of case precedent is understandable in view of the topography of England, a land of many running streams and brooks but few lakes of significance. In 1878 the English House of Lords, in *Bristow v. Cormican*,⁴ construed the common law rules concerning streams to be equally applicable to a grant of a lake bed in 1660. Although this decision is not binding in Florida as part of the common law, this view is now commonly accepted in America.⁵

Some time prior to the American Revolution the concept of navigability became superimposed on the existing law, and the dichotomy between legal rights relating to navigable and nonnavigable waters arose. There is some conflict among the writers as to the exact development of the English law.⁶ It seems fair to say, however, that a distinction was made between tidal and nontidal waters, or, in terms more familiar, between salt and fresh waters. Tidal waters were deemed "navigable in law," while waters not tidal, even though traversible by water-borne commerce, were not so considered.

If a body of water was thus labeled navigable, it became in a sense public domain, and the public's right to access and enjoyment of the *water* was not fettered by concepts of private property. This, however, did not necessarily prevent the underlying bed from passing into private ownership, although there is some question as to whether adjoining owners on a tidal bay or river designated as navigable in

³*E.g.*, *Middleton v. Prichard*, 4 Ill. (Scammon) *509, *520 (1842) (dictum).

⁴3 App. Cas. 641 (1878).

⁵*See, e.g.*, *Hardin v. Jordan*, 140 U.S. 371, 389 (1891): "[S]till water as well as rivers and streams was the subject of private ownership by the old English Law."

⁶*Compare* 12 B.U.L. REV. 169 (1932): "Nothing could be more clear and reasonable than the English common law on this subject. Water which is an arm of the sea is public and belongs to the sovereign; water not an arm of the sea, that is nontidal water, . . . belongs to the adjoining proprietors," *with* Annot., 23 A.L.R. 757 (1923): "Three absolutely false premises have been assumed by [American] courts as a basis for their opinions These false premises are that, at common law, only waters in which the tide ebbed and flowed were regarded as navigable; that there was a distinction in the power of the King over tidal and nontidal waters; and that he held the title to tidal waters in trust for the people, so that he could not grant them into private ownership."

law could take advantage of the presumption that the grant of the riparian land carried with it the contiguous land covered by the water.

If the body of water was labeled nonnavigable in law, both the underlying bed and the water itself passed into private ownership in accordance with the common law presumption or the calls of the deed, whichever was controlling. But if the waters were navigable *in fact*, that is, commercially traversible, even though privately owned they were subject to a servitude or easement in the public for purposes of navigation.

Thus, with the exception of the great seas, where private ownership of the bed or the water is obviously inappropriate, and small lakes and ponds which were of no interest to anyone except the surrounding landowners to whom they clearly belonged, the common law struggled with concepts of navigability, private property, and servitudes, and the result was largely a distinction without a difference.

Both the distinction and the difference assumed greater proportions in the hands of American lawgivers. Two major shifts occurred: the dividing line between navigable and nonnavigable waters was completely redefined, and private ownership of the underlying lands in the newly-enlarged area of navigable waters was largely discredited.

As early as 1641 a Massachusetts colonial ordinance provided that title to all ponds more than ten acres in area vested in the state, and that such ponds should be free for any man to fish or fowl there.⁷ Other states employed various devices to assert public ownership of waters and their underlying beds, one of the most popular being the trust theory, under which the state held title in trust for all the people. In keeping with common law phraseology, the sovereign's interest was limited to navigable bodies, except that navigable now came to mean capable of any reasonable public use regardless of whether the waters were fresh or salt, lake or stream.⁸

Florida has kept pace with the development of American water law. The Florida Court early enunciated the doctrine that the state held title to the lands under navigable waters in trust for all the people, and that the trust was governmental in nature, meaning that the state could convey title to such lands to private individuals, but that the conveyances could not act to alienate the state's interest in the "control and regulation of the uses afforded by the land and the

⁷See *Hardin v. Jordan*, 140 U.S. 371, 393 (dictum) (1891).

⁸See p. 309 *infra*.

waters," or to "divert them from their proper uses for the public welfare."⁹

This doctrine, applicable to the vast majority of Florida's lakes and streams as a result of the Florida Court's defining of the term navigable as navigable in fact,¹⁰ ensures to some extent that one of the state's most valuable natural resources will not pass completely out of the public domain. The price paid for this retention is the creation of many areas of doubt concerning the relative rights of the individual and the public in the waters and their beds. It is the purpose of this article and the other articles in this series to explore these areas, primarily in the light of Florida statutory and case law, with consideration of federal law when appropriate.

THE NATURAL WATERCOURSE

In Florida the meaning of the term "natural watercourse"¹¹ has developed in connection with problems of drainage or disposition of water rather than in terms of the use of water. The most important case in this connection is *Davis v. Ivey*,¹² in which the question was the extent to which a railroad in traversing a natural watercourse must make provision for the passage of water through or under its right of way. The Florida Supreme Court said:¹³

"A natural watercourse is a natural stream bed having bottom and sides in which water usually flows in a defined bed or channel. It is not essential to constitute a natural watercourse, that the flowing should be uniform or uninterrupted. The other elements existing, a stream does not lose its character or cease to be a natural watercourse because in time of drought

⁹*Broward v. Mabry*, 58 Fla. 398, 408, 50 So. 826; 829 (1909). See also FLA. STAT. §370.03 (1) (1955): "All beds and bottoms of navigable rivers, bayous, lagoons, lakes, bays, sounds, inlets, oceans, gulfs and other bodies of water within the jurisdiction of Florida shall be the property of the State except such as may be held under some grant or alienation heretofore made."

¹⁰*E.g.*, *Bucki v. Cone*, 25 Fla. 1, 6 So. 160 (1889).

¹¹The courts and text writers often talk in terms of the law of "streams and watercourses." No consistent distinction is to be found between a stream and a watercourse; if anything, the term "watercourse" would seem to encompass streams, as well as rivers, creeks, and similar bodies. The terms will be used interchangeably in this article unless the context requires otherwise.

¹²93 Fla. 387, 112 So. 264 (1927).

¹³*Id.* at 402, 112 So. at 269.

the flow may be diminished or temporarily suspended. It is sufficient if it is usually a stream of running water.”

Although the Court states that temporary suspension of flow in time of drought does not cause a stream to lose its character, it had indicated earlier that the stream must have a well-defined and natural existence.¹⁴ This would seem to preclude the conclusion that watercourses flowing only in times of flood or abnormally high water are to be considered natural watercourses.

Under the common law as applied in Florida, rights to use of the water and incidents of ownership in a natural watercourse fall into two contrasting groups: those attributable to a watercourse navigable in fact and those operative upon a determination that the watercourse is nonnavigable. A natural watercourse that is not navigable is susceptible of private ownership in the same way that any other real property is susceptible of private ownership.¹⁵ The owner of the bed has the same interest in the water that he has in the underlying land, and he is entitled to exclude the public and perhaps even owners of adjacent submerged lands from entering on or traversing his property.¹⁶

If a natural watercourse is navigable, title to the bed is vested in the state in its sovereign capacity,¹⁷ but rights to use of the water arise both in the public and in private adjoining landowners. Landowners whose property borders on a navigable watercourse own to the high-water mark¹⁸ and have rights in common in the use and

¹⁴Tampa Waterworks Co. v. Cline, 37 Fla. 586, 598, 20 So. 780, 783 (1896) (dictum).

¹⁵Martin v. Busch, 93 Fla. 535, 112 So. 274 (1927); Pounds v. Darling, 75 Fla. 125, 77 So. 666 (1918); Clement v. Watson, 63 Fla. 109, 58 So. 25 (1912).

¹⁶See Note, 5 U. FLA. L. REV. 166 (1951), for a brief discussion of the common law view, permitting the owner of part of the bed of a nonnavigable body of water to fence his part off, as opposed to the civil law rule imposing a reasonable use limitation.

¹⁷Minneapolis Mills Co. v. St. Paul Water Comm'rs, 168 U.S. 349 (1897); Shively v. Bowlby, 152 U.S. 1 (1893); State *ex rel.* Ellis v. Gerbing, 56 Fla. 603, 47 So. 353 (1908); see note 9 *supra*. This is subject to certain exceptions in Florida in cases in which Spanish land grants specifically included grants of submerged land. See Apalachicola Land and Development Co. v. McRae, 86 Fla. 393, 98 So. 505 (1923).

¹⁸South Florida Farms Co. v. Goodno, 84 Fla. 532, 94 So. 672 (1922). In Tilden v. Smith, 94 Fla. 502, 512, 113 So. 708, 712 (1927), it was stated: “[The] high water mark as a line between a riparian owner and the public is to be determined by examining the bed and the bank and ascertaining where the presence and action

consumption of water. These rights are known as riparian rights;¹⁹ and the bordering land, ownership of which entitles one to the rights of a riparian owner, is called riparian land. The public has the right to use the water for certain purposes, such as boating, bathing, and fishing.

RIGHTS ATTRIBUTABLE TO A NAVIGABLE NATURAL WATERCOURSE

Rights of a Riparian Owner

In *Ferry Pass Inspectors' and Shippers' Ass'n v. Whites River Inspectors' and Shippers' Ass'n*²⁰ the Florida Court said:

"Among the common law rights of those who own land bordering on navigable water, apart from rights of alluvion and dereliction, are the right of access to the water from the land for navigation and other purposes expressed or implied by law, the right to a reasonable use of the water for domestic purposes, the right to the flow of the water without serious interruption by upper or lower riparian owners or others, the right to have the water kept free from pollution, the right to protect the abutting property from trespass and from injury by the improper use of the water for navigation or other purposes, the right to prevent obstruction to navigation or an unlawful use of the water or of the shore or bed that specially injures the riparian owner in the use of his property, the right to use the water in common with the public for navigation, fishing and other purposes in which the public has an interest."

The Court has since further stated:²¹

of the water are so common and usual and so long continued in all ordinary years as to mark upon the soil of the bed a character distinct from that of the banks in respect to vegetation, as well as to the nature of the soil itself. . . . [T]hat only is to be considered the bed which the water occupies sufficiently long and continuously to wrest it from vegetation and to destroy its value for agricultural purposes." (Emphasis deleted).

¹⁹The term "riparian rights" is sometimes used to denote rights of owners of lands on the banks of watercourses, without any effort to distinguish between navigable and nonnavigable bodies. For clarity of presentation, use of the term in this article will be limited to the rights of an owner on a navigable body of water.

²⁰57 Fla. 399, 402, 48 So. 643, 644 (1909).

²¹*Broward v. Mabry*, 58 Fla. 398, 401, 50 So. 826, 827 (1909); *accord*, *Thiesen*

"These special rights are easements incident to the riparian holdings and are property rights that may be regulated by law but may not be taken without just compensation and due process of law."

In a 1953 act the Florida Legislature declared:²²

"Riparian rights are those incident to land bordering upon navigable waters. They are rights of ingress, egress, boating, bathing and fishing and such others as may be or have been defined by law. Such rights are not of a proprietary nature. They are rights inuring to the owner of the riparian land but are not owned by him. They are appurtenant to and are inseparable from the riparian land. The land to which the owner holds title must extend to the ordinary high water mark of the navigable water in order that riparian rights may attach."

The apparent inconsistency between this statute and the preceding case law seems to be largely verbal. Although the statute states that riparian rights are not of a proprietary nature, it would be difficult indeed to distinguish the legislatively recognized characteristics of these rights from those recognized by the Court as proprietary rights that cannot be taken without just compensation. And in the event of conflict between the two, presumably the case law would control, and the statute would be unconstitutional.

a. Nonconsumptive Uses

The generally recognized nonconsumptive uses of a navigable watercourse are boating, fishing, and similar uses. Additional rights in navigable watercourses have been approved by the Florida Court. Two of these, drainage and damming, are of major significance to the riparian owner.

Drainage. Assuming the existence of a natural watercourse passing through riparian land, the riparian owner is presumably entitled

v. Gulf F. & A. Ry., 75 Fla. 28, 78 So. 491 (1918). See also Op. Att'y Gen. Fla. 056-113 (1956).

²²Fla. Laws 1953, c. 28262, now FLA. STAT. §271.09 (1) (1955).

to deepen the watercourse in order to better drain his land.²³ Thus the owner of a dominant estate has the right to drain water into a natural watercourse even though this increases the quantity of water on the lower estate. An earlier Florida case apparently limits such drainage, indicating that a riparian owner may not divert waters into a natural drain if they would not normally find their way into it.²⁴ This limitation, in turn, must be considered in the light of a provision of the Florida Constitution authorizing the Legislature to provide for drainage of the land of one person over or through that of another upon just compensation.²⁵

The Court has also sanctioned the use of natural watercourses for drainage of industrial waste water, at least to the extent that the stream is capable of carrying off waste water without harm to lower riparian owners. In *Bray v. Winter Garden*²⁶ a lower owner who failed to clear an obstruction in his part of the stream was denied relief against an upper owner who dumped industrial waste waters into the stream. The Court decided that if the lower owner had removed the obstruction the waters would have passed harmlessly through his land. By implication at least, the *Bray* case indicated that an upper riparian owner could not ditch his land in such a manner as would cause the watercourse to overflow downstream land during periods of high water. Although this has not been definitely settled by case law in Florida, factual studies show that it is a distinct problem in a number of Florida localities.²⁷ Moreover, although the case indicates that a lower riparian owner cannot complain of flooding if caused by his failure to remove an obstruction in the stream where it passes through his land, the question remains unsettled in Florida whether upper owners whose lands are being flooded

²³*Edason v. Denison*, 142 Fla. 101, 194 So. 342 (1940); *cf. Bray v. Winter Garden*, 40 So.2d 459 (Fla. 1949).

²⁴*Callan v. G. M. Cypher Co.*, 71 Fla. 14, 25, 70 So. 841, 844 (1916) (dictum).

²⁵FLA. CONST. art. XVI, §28.

²⁶40 So.2d 459 (Fla. 1949).

²⁷See FLORIDA WATER RESOURCES STUDY COMM'N, REPORT OF COUNTY COMMITTEES ON WATER PROBLEMS (1956) (hereinafter cited as 1956 REPORT) 45, §I.C.2. (Leon County); *id.* at 58, §I.A.1. (Okaloosa County); *id.* at 47, §I.A.1. (Levy County); *id.* at 14, §I.C.1. (Columbia County); FLORIDA ASS'N OF SOIL CONSERVATION DIST. SUPERVISORS, PRELIMINARY SUMMARY OF DATA ON WATER PROBLEMS (1954) (hereinafter cited as 1954 REPORT) §II.A.1., problems 8 (Flagler County), 28 (Martin County); *id.* §II.C., all problems (Bay, Glades, Hamilton, Hendry, Highlands, Indian River, Lee, Marion, Martin, Okeechobee, Orange, Osceola, Polk, Sarasota, Sumter Counties).

because of such an obstruction can legally require the lower owner to remove it.²⁸ Surveys indicate that this also is a problem existing in the state.²⁹

Dams. The right of a riparian owner to construct a dam across a natural watercourse running through his land is well recognized.³⁰ This common law right was not dependent upon a characterization of navigability or nonnavigability, although a determination of navigability may now impose both federal and state limitations on this right.³¹ The right to dam does not include the right to injure; the builders of a dam may be liable to both upper and lower riparian owners for any injury they sustain as a result of the construction of the dam.³²

The injury to which the upper owner is most susceptible is the flooding of his lands by water backed up by the dam. Even though the strict liability doctrine of *Rylands v. Fletcher*³³ generally is not applied by American courts to the damming of the bed of a natural stream,³⁴ damages have been recovered on the basis of trespass³⁵ and of private nuisance,³⁶ and injunctive relief has been granted on the grounds of unreasonable use.³⁷

²⁸*Cf.* Toy v. Atlantic Gulf & Pacific Co., 176 Md. 197, 4 A.2d 757 (1939) (special damages for injury from obstruction by debris); Wilhite v. Billings & Eastern Montana Power Co., 39 Mont. 1, 101 Pac. 168 (1909) (mandatory injunction against obstructing by dams, embankments, or dikes).

²⁹1956 REPORT, *supra* note 27, at 5, §II.A.1. (Brevard County); *id.* at 10, §I.A.1. (Charlotte County); *id.* at 27, §II.A.1. (Flagler County); *id.* at 47, §II.A.1. (Levy County); *id.* at 58, §I.A.1. (Okeechobee County); *id.* at 65, §II.A.1. (Pasco County); 1954 REPORT, *supra* note 27, §II.A.1., problems 7 (DeSoto County), 13 (Hendry County), 19 (Lee County), 24 (Manatee County), 32 (Okeechobee County).

³⁰See *Humphreys-Mexia Co. v. Arseneaux*, 116 Tex. 603, 612, 297 S.W. 225, 230 (1927) (dictum); 2 FARNHAM, WATERS §475 (1904).

³¹See p. 315 *infra*.

³²*E.g.*, *Gulf States Steel Co. v. Law*, 224 Ala. 667, 141 So. 641 (1932); *Callison v. Mt. Shasta Power Corp.*, 123 Cal. App. 247, 11 P.2d 60 (1932); *Winchester Water Works Co. v. Holliday*, 241 Ky. 762, 45 S.W.2d 9 (1931); *Wheatley v. City of Fairfield*, 221 Iowa 66, 264 N.W. 906 (1936); *McKee v. Delaware & H. Canal Co.*, 125 N.Y. 353, 26 N.E. 305 (1891).

³³L.R. 3 H.L. 330 (1868); see RESTATEMENT, TORTS §850 (1939).

³⁴*City Water Power Co. v. Fergus Falls*, 113 Minn. 33, 128 N.W. 817 (1910); *King v. Miles City Irrigating Ditch Co.*, 16 Mont. 463, 41 Pac. 431 (1895); *cf.* *Ague v. American Agric. Chem. Co.*, 5 Fla. Supp. 133 (1953).

³⁵*Wheatley v. City of Fairfield*, 221 Iowa 66, 264 N.W. 906 (1936).

³⁶*Gulf States Steel Co. v. Law*, 224 Ala. 667, 141 So. 641 (1932).

³⁷*Callison v. Mount Shasta Power Corp.*, 123 Cal. App. 247, 11 P.2d 60 (1932).

The Florida studies have revealed a number of instances of flooding resulting from construction of dams for irrigation,³⁸ municipal use,³⁹ or creation of lakes for fishing and recreation.⁴⁰ Although no Florida cases precisely in point were found, a dictum in *Florida Power Co. v. Cason*⁴¹ indicates that compensation might be obtained by injured landowners if the use of the dam was considered unreasonable with reference to the rights of the affected landowners.

This same dictum may provide a basis for liability of an owner who erects a dam that bursts or otherwise releases large quantities of water, resulting in damage to lower riparian owners. Here again the doctrine of strict liability has been rejected when the dam failure resulted from an unprecedented cloudburst or other "act of God."⁴² The problem of bursting dams is not unknown in Florida.⁴³ Not only have dams failed from natural causes but several failures have apparently resulted from disgruntled neighbors dynamiting the dams.⁴⁴ Although the upper riparian owner might not be liable for harm resulting from such dynamiting, the culprits, if apprehended, of course would be civilly as well as criminally liable.⁴⁵

If a natural watercourse separates two adjoining landowners, neither one has an unqualified right in the absence of statute to place a dam across the stream so as to abut or otherwise trespass on his neighbor's land.⁴⁶ An early Florida statute,⁴⁷ similar to the Mill Acts so frequently found in other states,⁴⁸ enables a riparian owner on one side of a watercourse who wishes to erect a dam for furnish-

³⁸1956 REPORT, *supra* note 27, at 83, §II.A.1. (Walton County); 1954 REPORT, *supra* note 27, §II.A.1, problems 16 (Highlands County), 22 (Madison County), 35 (Pasco County), 42 (Union County).

³⁹1954 REPORT, *supra* note 27, §II.A.1., problem 36 (Pinellas County).

⁴⁰*Id.* problem 23 (Manatee County).

⁴¹79 Fla. 619, 626, 84 So. 921, 923 (1920).

⁴²*Bratton v. Rudnick*, 283 Mass. 556, 186 N.E. 669 (1933); *Nichols v. Mausland*, 2 Ex. D. 1 (1876).

⁴³1956 REPORT, *supra* note 27, at 41, §I.A.2. (Jackson County); 1954 REPORT, *supra* note 27, §II.A.1., problems 9 (Gadsden County), 10 (Hamilton County), 44 (Walton County).

⁴⁴1954 REPORT, *supra* note 27, §II.A.1., problems 16 (Highlands County), 18 (Jackson County).

⁴⁵FLA. STAT. §552.14 (1955).

⁴⁶See 2 FARNHAM, WATERS §531 (1904).

⁴⁷Fla. Laws 1903, c. 5198, now FLA. STAT. §361.02 (1955).

⁴⁸See *Head v. Amoskeag Mfg. Co.*, 113 U.S. 9 (1885); *Oury v. Goodwin*, 3 Ariz. 255, 26 Pac. 376 (1891); *Olmstead v. Camp*, 33 Conn. 532 (1866). There is also special legislation in Florida, e.g., Fla. Spec. Acts 1925, c. 10364.

ing power to acquire, by eminent domain proceedings, land on the opposite side against which his dam will abut. The act also provides for the acquisition of surrounding lands that would be overflowed by the erection of the dam. It has been held that statutory authorization for the construction of such dams does not prevent or limit liability for injury resulting therefrom.⁴⁹ The Mill Acts concern themselves solely with construction of dams for water power purposes; there are no specific provisions dealing with construction of dams for irrigation, industrial, or similar uses. In 1957 the Florida Legislature enacted a bill which permits the Trustees of the Internal Improvement Fund to authorize riparian owners to "construct, maintain and operate structures and facilities on, in and under the bed of any navigable stream . . . for the purpose of providing water of a suitable quality for industrial, domestic or other use."⁵⁰ Although the act does not provide condemnation powers, and does not mention dams specifically, a broad interpretation might find dam construction within the scope of the statute.

In periods of drought, such as the state recently experienced, the problem is not one of inundation but of deprivation. Studies indicate that impounding of water, for irrigation or other purposes, by damming has resulted in loss by downstream owners of their source of water. In a number of instances this has meant inadequate water supply for irrigation⁵¹ and watering of stock,⁵² and in some extreme cases total drying up of the lower stream bed with the accompanying loss of water for any purpose.⁵³ If this type of activity is deemed an unreasonable use, injunctive relief may be available to the injured lower owner, although the equitable remedy may be refused on the balance of convenience doctrine.⁵⁴

b. Consumptive Uses

Florida's water law has generally developed within the confines

⁴⁹See *Healey v. Citizens Gas and Elec. Co.*, 199 Iowa 82, 201 N.W. 118 (1924); cf. *Florida Power Co. v. Cason*, 79 Fla. 619, 84 So. 921 (1920).

⁵⁰Fla. Laws 1957, c. 57-325.

⁵¹1956 REPORT, *supra* note 27, at 1, §II.A.4. (Alachua County); *id.* at 15, §II.A.4. (Columbia County).

⁵²*Id.* at 80, §II.A.4. (Union County); *id.* at 29, §II.A.4. (Gilchrist County).

⁵³*Id.* at 80, §II.A.4. (Union County); *id.* at 83, §II.A.4. (Walton County); *id.* at 78, §II.A.4. (Suwannee County).

⁵⁴See Maloney, *The Balance of Convenience Doctrine in the Southeastern States, Particularly As Applied to Water*, 5 S.C.L.Q. 159, 167 (1952).

of the riparian system. The earliest cases put primary emphasis on the right of riparian owners to have the water flow to them in its normal course, undiminished in quantity or quality.⁵⁵ The only uses sanctioned were for domestic and household purposes, including the watering of farm animals, and these uses were generally referred to as "natural" uses, as distinguished from "artificial" uses such as irrigation and manufacturing. As a general rule a riparian owner was permitted to use such water as was necessary for his natural uses regardless of the effect on other owners.

As means of effectively utilizing water increased, emphasis shifted to the right of riparian owners to make reasonable uses of the water for artificial purposes as it flowed by their property; what was reasonable depended on the uses being made by other riparians who had an equal right to use the water. In some states there is a recent trend toward de-emphasizing this distinction between natural and artificial uses and recognizing in riparian owners a common or correlative right in a stream, with each owner being entitled to make such natural or artificial use of the water as is reasonable under the circumstances, taking into consideration all the uses of other riparian owners.⁵⁶ Although this change in conceptual approach itself provides no answers, it perhaps makes the machinery for solution more flexible.

The state of development of the Florida law in so far as withdrawals for consumptive uses are concerned is not too clear. In one early case in which the primary consideration was the pollution of an "underground stream" then being used as a source of water supply by the City of Tampa, the Supreme Court of Florida restated the riparian rule with the reasonable use modification.⁵⁷ The Court did not indicate, however, the extent to which diversion for so-called artificial uses such as irrigation or manufacturing might be permitted; and, since the case was a pollution case, it did not in any event es-

⁵⁵See generally Maloney, *Florida's New Water Resources Law*, 10 U. FLA. L. REV. 125, 128 n.40 (1957).

⁵⁶See discussion in Marquis, Freeman and Heath, *The Movement for New Water Rights Laws in the Tennessee Valley States*, 23 TENN. L. REV. 797, 807 (1955).

⁵⁷*Tampa Waterworks v. Cline*, 37 Fla. 586, 595, 20 So. 780, 782 (1896). The Court said: "The right to the benefit and advantage of the water flowing past one owner's land is subject to the similar rights of all proprietors on the banks of the stream to the reasonable enjoyment of a natural bounty, and it is therefore only for an unauthorized and unreasonable use of a common benefit that any one has just cause to complain."

establish a binding precedent concerning consumptive use. The decision indicates, however, that when the problem is squarely presented to the Court it will probably adopt the reasonable use aspect of the riparian doctrine and permit diversions that do not unreasonably interfere with use by other riparian owners.

Assuming the application of the reasonable use doctrine to the normal flow of Florida's watercourses, two problems arise: Is a riparian owner entitled to use water for artificial uses only on his riparian land, or is he entitled to conduct the water to lands not riparian; and in periods of shortage to what extent will the law recognize priorities for use among domestic, agricultural, and industrial users?

Under strict riparian doctrine it is unlawful to divert water for use on nonriparian land; riparian owners are not excepted.⁵⁸ Although there is an abundance of statute and case law concerning Florida's riparian lands, the statutes and cases are primarily concerned with techniques for acquiring title to land in and around natural watercourses rather than the inland limits to which a riparian owner's rights extend. Several approaches to this problem have been developed in jurisdictions in which a shortage of water for irrigation exists. Since many of these jurisdictions follow the riparian doctrine, the inland extent of riparian land assumes considerable importance. Use of water for irrigation may be severely limited by restricting riparian land to the smallest tract held under one title in the chain of titles leading to the present owner.⁵⁹ Under this rule a parcel of land detached from a riparian tract and no longer touching the stream loses its riparian status; on the other hand, inland additions to a riparian tract cannot be made riparian by coming under the ownership of the owner of the land lying between the newly acquired land and the stream.⁶⁰ A broader approach would entitle an owner of land contiguous to a stream to riparian rights in all of the land without regard to its extent or from whom title was acquired.⁶¹ Some jurisdictions have adopted this broader approach with the limitation that the land be confined to the watershed of the stream involved.⁶² It would seem that in Florida, where

⁵⁸See I KINNEY, A TREATISE ON THE LAW OF IRRIGATION §§516-17 (2d ed. 1912). See also Maloney, *supra* note 55, at 131.

⁵⁹See *Rancho Santa Margarita v. Vail*, 11 Cal.2d 501, 81 P.2d 533 (1938).

⁶⁰*Yearsley v. Cater*, 149 Wash. 285, 270 Pac. 804 (1928).

⁶¹See *Jones v. Conn*, 39 Ore. 30, 64 Pac. 855, *rehearing denied*, 39 Ore. 46, 65 Pac. 1068 (1901).

⁶²*Clark v. Allaman*, 71 Kan. 206, 80 Pac. 571 (1905).

in most areas the surface streams carry more than enough water for irrigation of immediately adjacent land, the broad definition of riparian land, or at least a definition that would allow the use of the water on a reasonable amount of adjacent land, would be preferable.

To a certain extent the 1957 Florida Legislature alleviated this aspect of the problem. The Water Resources Law enacted in that year⁶³ provides machinery enabling a riparian owner to conduct the water from a watercourse for use beyond the boundaries of his riparian holdings. The authority for granting such diversions is vested in the State Board of Conservation and is subject to specified limitations.⁶⁴ Thus by obtaining permission for specific diversions, the riparian owner can obviate the necessity for determining the extent of his riparian land. Further clarification of the depth of riparian land might nevertheless be desirable.

The second problem, that of priorities of use among domestic, agricultural, and industrial users in times of drought, is by no means academic; conflicts or potential conflicts exist today in a number of Florida communities.⁶⁵ There is legislation in Florida giving municipalities a degree of preference.⁶⁶ This legislation was not enacted for the purpose of establishing priorities, however, but to allow municipalities the right to take necessary water through eminent domain proceedings. There is a complete absence of case law on priorities among users during dry periods, or indeed even during periods of normal flow. In this area Kentucky has taken the lead in legislative clarification.⁶⁷ Legislation similar to that in Kentucky, establishing a priority for domestic purposes, which in that jurisdiction is defined to include "water for household purposes, drinking water for livestock, poultry and domestic animals," might be advisable. If this legislation were enacted in Florida, "domestic animals" should perhaps be defined in such a way as to prevent the possibility of the

⁶³Fla. Laws 1957, c. 57-380, §8 (1) (a).

⁶⁴See Maloney, *supra* note 55, at 141, 144.

⁶⁵1956 REPORT, *supra* note 27, at 28, §II.A.4. (Gadsden County); 1954 REPORT, *supra* note 27, §II.A.4., problems 1 (Alachua County), 2 (Bradford County), 4 (Charlotte County), 5 (Clay County), 15 (Nassau County), 19 (Sumter County) (agricultural-domestic); *id.* problem 4 (Charlotte County) (agricultural-municipal); *id.* problem 11 (Holmes County) (domestic-manufacturing); *id.* problem 14 (Marion County) (manufacturing-recreational).

⁶⁶See FLA. STAT. c. 180 (1955); FLA. STAT. §361.04 (1955).

⁶⁷See KY. REV. STAT. §262.690 (3) (1955). This is a section of the Kentucky Water Conservation Law of 1954. See Maloney, *supra* note 55, at 132.

owner of a large herd of commercial feeder cattle using the flow of a stream to the extent that he deprives those downstream of water for household purposes.

Rights of the Public

As stated in the *Ferry Pass* case, the public has the right to use water in a navigable watercourse for navigation, fishing, and similar nonconsumptive uses. In addition, the public has the right to use of the riparian land between the high and low water marks. On this basis a riparian owner in 1909 was denied an injunction by which he sought to prevent a stranger, engaged in the logging business, from using the shore in front of the owner's riparian holdings for the purpose of inspecting and working on the stranger's logs. The Court indicated that the plaintiff could have relief from a denial of access to the water, but that he did not have an exclusive right to the use of either the waters or the shore adjacent to his riparian holding.⁶⁸ Moreover, if a street runs to a navigable stream, the shore and submerged lands at the end of the street apparently belong to the public rather than to the owner of the fee in the street, and members of the public have the right of free access to the stream.⁶⁹

Prior to 1957 a limited right to consumptive use by the public had been recognized. In 1927, in *Tilden v. Smith*,⁷⁰ the Supreme Court of Florida indicated that flood water from streams that is of no substantial benefit to a riparian owner "may be appropriated by any person who can lawfully gain access to the stream, and may be conducted to land not riparian, and even beyond the watershed of the stream, without the consent of the riparian owner, and without compensation to him." The General Assembly of Kentucky in 1954 enacted legislation to provide similar guarantees as to surplus water in periods of heavy flow. An irrigator, in some cases, may acquire a reasonably reliable supply from this source, and in fact in Kentucky about half of the irrigators use this method of acquiring and storing irrigation water.⁷¹ Similarly the Central and Southern Florida Flood Control District is planning to collect and store excess flood waters,

⁶⁸*Ferry Pass Inspectors' and Shippers' Ass'n v. Whites River Inspectors' and Shippers' Ass'n*, 57 Fla. 399, 48 So. 643 (1909).

⁶⁹*Geiger v. Filor*, 8 Fla. 325, 333 (1859) (dictum); cf. *Brickell v. Fort Lauderdale*, 75 Fla. 622, 78 So. 681 (1918).

⁷⁰94 Fla. 502, 511, 113 So. 708, 711 (1927) (dictum based on a California case).

⁷¹LEGISLATIVE RESEARCH COMM'N, WATER RIGHTS LAW IN KENTUCKY 75 (1956).

and these waters will then become available to irrigators in the Lake Okeechobee area of the district.⁷² The state will thus benefit by the potential increase in the area under cultivation.

The 1957 Florida Water Resources Law⁷³ expands the dictum in the *Tilden* case and provides statutory authorization for the capture, storage, and use of all water in excess of existing reasonable uses and, as noted above, for diversion of such waters beyond riparian or overlying land.

Federal legislation authorizing federal-state flood control projects provides for sale of surplus waters collected in federally maintained and operated reservoirs.⁷⁴ The Secretary of the Army may sell the water in these reservoirs "at such prices and on such terms as he may deem reasonable."⁷⁵ The legislation authorizing the sales contains a provision that contracts for the water shall not adversely affect existing lawful uses of the water, a provision that would protect irrigators who were already operating in an area when a flood control project went into operation.

NAVIGABILITY

The State Test

The entire structure of riparian rights, and the attendant rights of the public, depends on a determination that the natural water-course involved is navigable. Since these rights are common law rights, the determination will be governed by state law.

The Legislature of Florida has not seen fit to define "navigable" or to characterize a navigable stream, but Florida cases dating back to 1889 have established judicial criteria.⁷⁶ In the early case of *Bucki v. Cone*,⁷⁷ involving injury to a bridge on the Suwannee River near White Springs, the Florida Court, after pointing out that at common law tidal streams were regarded as navigable, went on to say:

"[I]n this country all rivers, without regard to the ebb and

⁷²MARSHALL AND YOUNG, PUBLIC ADMINISTRATION OF FLORIDA'S NATURAL RESOURCES 55 (Public Adm'n Clearing Serv., Studies in Public Adm'n, No. 9, 1953).

⁷³Fla. Laws 1957, c. 57-380, §8 (1) (a).

⁷⁴58 STAT. 890 (1944), 33 U.S.C. §708 (1946).

⁷⁵*Ibid.*

⁷⁶See Hunt, *Riparian Rights in Florida*, 8 U. FLA. L. REV. 393, 394 (1955).

⁷⁷25 Fla. 1, 18, 6 So. 160, 161 (1889).

flow of the tide, are generally regarded as navigable as far up as they may be conveniently used at all seasons of the year with vessels, boats, barges or other water craft for purposes of commerce; and others are regarded as navigable when so declared by statute. Further than this, what constitutes a navigable river free to the public is a question of fact to be determined by the natural condition in each case. A stream of sufficient capacity and volume of water to float to market the products of the country will answer the conditions of navigability . . . whatever the character of the product, or the kind of floatage suited to their conditions [I]t is not essential . . . that the stream should be continuously, at all seasons of the year, in a state suited to such floatage."

This case established that Florida watercourses may be considered navigable even though they are so shallow as to be suitable only for the floating of logs, and that they need not be of sufficient depth to float vessels.

Two points in this definition were clarified in later dicta. Concerning navigability of tidal waterways, the Court in 1921 took the position that these waterways were not navigable unless they were in such condition as to be in fact capable of navigation for useful public purposes; contrary to what was apparently the common law rule, waterways are not navigable "merely because they are affected by the tide."⁷⁸ Concerning continuity of navigation, the Supreme Court of Florida, in a 1909 case involving title to the bed of Lake Jackson, held the lake to be navigable even though most of the lake bed during ordinary water levels could be navigated only by flat-bottomed boats drawing no more than six inches of water, and large portions of the bottom of the lake were dried out for such long periods of time that crops were planted and harvested on the bed. The fact that the lake went dry at times did not strip it of navigability, since the Court found that in its ordinary state it was navigable.⁷⁹

The Florida Court has also considered the relationship to navigability of the meandering of the boundary of a stream in the original official survey of the state. In the *Bucki* case the Court held that the fact that in the original survey the river was meandered provides a "mark" of navigability.⁸⁰ However, the fact that a stream was or was

⁷⁸Tarpon Springs v. Smith, 81 Fla. 479, 498, 88 So. 613, 619 (1921) (dictum).

⁷⁹Broward v. Mabry, 58 Fla. 398, 50 So. 826 (1909).

⁸⁰Bucki v. Cone, 25 Fla. 1, 6 So. 160 (1889).

not meandered is only evidence of navigability, and in the last analysis the test of navigability is whether the watercourse is navigable in fact. The Court has held that the fact that a stream was not meandered, that lines of survey were protracted over the bed of the river, and that patents were issued therefor does not change the navigable character of the river or serve to convey title to the land under the river.⁸¹ Moreover, when a stream is meandered, the meanders are not necessarily the boundaries of the stream; hence a purchaser who receives a deed from the United States conveying land shown to be bordering on a navigable river takes title up to the actual water mark rather than the meander line.⁸²

To come within the state definition of navigability as navigability in fact, the watercourse must *in its natural state* be capable of sustaining navigation, without artificial improvement.⁸³ It may be necessary, however, to distinguish between a stream that is in no part navigable until artificially improved and one that is partly navigable in its natural state and subsequently improved. As to the latter, the Attorney General has taken the position that "where existing navigable waters are improved by raising the level thereof by artificial means, navigation will not be confined to the original channels, but extends to such of the waters as may be navigable after the raising of the level of waters."⁸⁴

The Federal Test

Contrary to the state rule, determination that a watercourse is navigable under federal law does not in itself establish proprietary interests. A federal finding of navigability does not strip the state of its title to the bed of the watercourse,⁸⁵ but it does place drastic limitations on the control of a state over the use of the waters in the watercourse, and indirectly affects both riparian and public rights.⁸⁶

⁸¹State *ex rel.* Ellis v. Gerbing, 56 Fla. 603, 47 So. 353 (1908).

⁸²Lord v. Curry, 71 Fla. 68, 71 So. 21 (1916).

⁸³Clement v. Watson, 63 Fla. 109, 58 So. 25 (1912).

⁸⁴OP. ATT'Y GEN. FLA. 055-157 (1955).

⁸⁵See, *e.g.*, James v. Dravo Contracting Co., 302 U.S. 134 (1937); Ashwander v. Tennessee Valley Auth., 297 U.S. 288 (1936); United States v. Arizona, 295 U.S. 174 (1935); United States v. Oregon, 295 U.S. 1 (1935); United States v. Utah, 283 U.S. 64 (1931); Massachusetts v. New York, 271 U.S. 65 (1926); Barney v. Keokuk, 94 U.S. 324 (1876).

⁸⁶Egan v. Hart, 165 U.S. 188 (1897); *accord*, Pound v. Turck, 95 U.S. 459 (1877); Leitch v. Chicago, 41 F.2d 728 (7th Cir.), *cert. denied*, 282 U.S. 891 (1930).

It is, therefore, of importance to examine the origin of this federal power and its relationship to navigation. The power stems from the commerce clause of the United States Constitution.⁸⁷ Interpreting the meaning of this clause in 1865, the Supreme Court of the United States said:⁸⁸

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

Since all or practically all of Florida's navigable watercourses run into the Atlantic Ocean or the Gulf of Mexico and hence “are accessible from a state other than those in which they lie,” Congress has the power to legislate concerning them.

Basically, the federal test of navigability is the same as that used in Florida, that is, navigability in fact.⁸⁹ As in the state cases, actual use is the best evidence of navigability. The use need not be made by vessels, and use for floating logs is sufficient to render a stream navigable.⁹⁰ Moreover, although the basis of federal control is the commerce clause, the Supreme Court of the United States has indicated that use of a waterway need not be commercially important to sustain federal intervention; use by private boats, such as is frequently the case in Florida's waterways, is strong evidence of the navigability of a stream.⁹¹

Contrary to the position of the Florida Court that a watercourse to be navigable must in its natural state be capable, at least in part, of sustaining navigation without the necessity of artificial improvement, waterways are navigable in a federal sense if by means of arti-

⁸⁷U.S. CONST. art. I, §8, cl. 3, gives Congress the power to “regulate commerce with foreign nations, and among the several states, and with the Indian tribes.”

⁸⁸*Gilman v. Philadelphia*, 70 U.S. (3 Wall.) 713, 724 (1865).

⁸⁹*The Daniel Ball*, 77 U.S. (10 Wall.) 557 (1870).

⁹⁰*St. Anthony Falls Water Power Co. v. St. Paul Water Comm'rs*, 168 U.S. 349 (1897); *Wisconsin Pub. Serv. Corp. v. Federal Power Comm'n*, 147 F.2d 743 (7th Cir.), *cert. denied*, 325 U.S. 880 (1945).

⁹¹*United States v. Appalachian Elec. Power Co.*, 311 U.S. 377, 416 (1940) (dictum).

ficial aid they can within reasonable limits be made suitable for navigation.⁹² Moreover, the Supreme Court has held that when any portion of a stream is navigable the federal government has the power to control not only the navigable portion but also the upper non-navigable reaches of the waterway when diversions for irrigation or other purposes in these portions would affect uninterrupted navigability in the lower reaches.⁹³

Federal Exercise of Power Under the Commerce Clause. A finding of navigability and an application of federal power under the commerce clause is the key to federal intervention in a natural watercourse. Congress, with the help of the Supreme Court, has not been shy about using this key to unlock areas thought to be in need of federal development, even when the projects were only indirectly connected with navigation.

Two large areas have thus seen considerable federal action: flood control and power development. The power cases are generally sustained on the ground that the erection of a power dam serves to improve navigation. As was said by the United States Supreme Court in validating the erection of Boulder—now Hoover—Dam, “the fact that purposes other than navigation will also be served could not invalidate the exercise of the authority conferred, even if those other purposes would not alone have justified an exercise of Congressional power.”⁹⁴ This same argument, combined with the federal government’s power to control nonnavigable portions of navigable watercourses, was used to justify the erection of the Dennison Dam, in the upper nonnavigable reaches of the Red River in Oklahoma.⁹⁵

Concerning flood control, the Supreme Court has stated that there is no constitutional reason why Congress cannot treat the “watersheds as a key to flood control on navigable streams and their tributaries. Nor is there a constitutional necessity for viewing each reservoir project in isolation from a comprehensive plan covering the entire basin of a particular river.”⁹⁶ On this basis, Congress has legislated for the prevention of soil erosion to protect rivers and harbors and maintain navigability.⁹⁷ Jurisdiction over this phase of aid to navi-

⁹²*Id.* at 407.

⁹³*United States v. Río Grande Dam and Irrigation Co.*, 174 U.S. 690 (1899).

⁹⁴*Arizona v. California*, 283 U.S. 423, 456 (1931).

⁹⁵*Oklahoma v. Guy F. Atkinson Co.*, 313 U.S. 508 (1941).

⁹⁶*Id.* at 525.

⁹⁷*Soil Conservation and Domestic Allotment Act* §1, 49 STAT. 1148 (1936), 16 U.S.C. §590g (a) (1952).

gation has been vested in the Department of Agriculture, and sub-delegated to the Soil Conservation Service. Such legislation has recently culminated in the Watershed Protection and Flood Prevention Act, commonly known as the Small Watershed Act, under which federal aid is given for flood control in watershed areas not exceeding 25,000 acres.⁹⁸ This act created the machinery under which the federal government can co-operate with local organizations in planning and carrying out measures for flood prevention and conservation, utilization and disposal of water.⁹⁹

To what extent has the federal government made use of the power to protect navigation as a basis for controlling Florida's water-courses? The Central and Southern Florida Flood Control District is, of course, the most outstanding example. The justification for the project is a finding that flood control on navigable waters or their tributaries is the proper function of Congress in order to prevent destructive floods which in turn obstruct navigation.¹⁰⁰ In enacting federal flood control legislation, Congress has required that flood control projects must be submitted to an affected state for comment and that if the state objects to the project the work cannot be authorized without further specific approval by Congress itself. Congress, nevertheless, has the power to order the work done over the objection of the state.¹⁰¹ In addition to flood control projects, the federal government may, and frequently does, intervene in support of state navigation improvement projects,¹⁰² generally with a requirement for local contribution as a condition precedent to federal grants for the work.

⁹⁸68 STAT. 666 (1954), 16 U.S.C. §1001, 33 U.S.C. §701b (Supp. 1957).

⁹⁹Dovell and Tarlton, *The Watershed Act: Its Application to Florida*, 15 Economic Leaflets No. 2 (U. of Fla., Feb. 1956). As of November 1957, five projects for the State of Florida have been approved, two of which are in the construction phase. An additional ten applications are presently under consideration.

¹⁰⁰Declaration of Policy, Flood Control Act, 49 STAT. 1570 (1936), 33 U.S.C. §§701a-b (1952).

¹⁰¹58 STAT. 887, §1 (1944), as amended, 33 U.S.C. §701-1 (1952).

¹⁰²Many such projects have been carried on in Florida. Among those already completed are Courtenay Channel, Palm Beach Harbor, Port Everglades Harbor, and East Pass Channel from the Gulf of Mexico into Choctawhatchee Bay. A few of the projects presently under construction are Jacksonville Harbor, Canaveral Harbor, Okeechobee Waterway, and Gulf Intracoastal Waterway between Apalachee Bay and the Mexican Border (Mobile District). Water Resources Development by the U.S. Army Corps of Engineers in Florida, U.S. Army Engineer Division (Jan. 1957).

Finally, a word should be said about the place of the federal government in interstate water disputes involving navigable streams. Such disputes in connection with some of Florida's northern rivers are quite possible in the foreseeable future. The Constitution of the United States permits the settlement of disputes between states through interstate agreements or compacts, when approved by Congress.¹⁰³ The compacts, along with machinery for their execution, are worked out by the affected states. They provide a much more satisfactory method of settlement than sporadic litigation concerning isolated points of disagreement. Of course, the federal courts have jurisdiction over interstate disputes in the absence of compacts; and they have usually handled water problems on the basis of equitable apportionment, a doctrine closely allied to the reasonable use doctrine sometimes applied to individual riparian owners.¹⁰⁴

It is evident that Congress has tremendous power over navigable streams under the commerce clause of the Constitution. How do these powers affect the private interests of riparian owners? One obvious effect is in relation to private dam construction. Since dam construction interferes with navigability, Congress early prohibited the erection of dams unless the consent of Congress and the approval of the plan by the Chief of Engineers and Secretary of the Army had been obtained.¹⁰⁵ It has been held that the federal statute prohibiting dams does not abolish the common law riparian right to build a dam

¹⁰³U.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 (1948), 33 U.S.C. §466a(c) (1952). See Watson, *Ohio River Compact and Other Interstate Agreements*, 41 J. AM. WATER WORKS ASS'N 18 (1949). In *Hinderlider v. La Plata River & Cherry Creek Ditch Co.*, 304 U.S. 92, 106 (1938), the Supreme Court points out that Congress had consented, as of 1938, to 15 compacts for apportionment of waters in interstate streams. See also 3 REPORT OF THE PRESIDENT'S WATER RESOURCES POLICY COMMISSION, WATER RESOURCES LAW 64-70 (1950).

¹⁰⁴*Colorado v. Kansas*, 320 U.S. 383 (1943); *Wyoming v. Colorado*, 298 U.S. 573 (1936) (by implication); *New Jersey v. New York*, 283 U.S. 336 (1931); *Connecticut v. Massachusetts*, 282 U.S. 660 (1931); *Kansas v. Colorado*, 206 U.S. 46 (1907); *Kansas v. Colorado*, 185 U.S. 125 (1902) (by implication).

¹⁰⁵*River and Harbor Act* §10, 26 STAT. 454 (1890); *River and Harbor Act*, 30 STAT. 1151 (1899), 33 U.S.C. §403 (1952). Similar state legislation, operating in local areas, has been enacted in Florida, requiring approval by the appropriate authority prior to the erection of obstructions in navigable waters. E.g., Fla. Spec. Acts 1955, c. 31182 (Pinellas County Water and Navigation Control Authority).

across a navigable stream, but merely regulates it.¹⁰⁶ On the other hand, authorization by the Chief of Engineers or Congress does not relieve an individual from liability for harm to riparian owners on the stream when a dam is erected.¹⁰⁷

The right of the federal government to make improvements in connection with navigation extends "to the entire bed of a stream, which includes the land below ordinary high-water mark;"¹⁰⁸ thus the federal government has been held not legally liable for the destruction of private property below the high water mark.¹⁰⁹ On the same basis, the destruction of oyster beds in the course of channel improvement has been held not compensable,¹¹⁰ although Congress has recently authorized the Court of Claims to award damages to oyster growers for such destruction.¹¹¹ Riparian owners on a non-navigable tributary of a navigable watercourse, however, may be able to collect damages from the federal government when an improvement in the navigable area results in flooding or other damages to land on the tributary.¹¹²

STATE CONTROL OVER NATURAL WATERCOURSES

It is apparent from the previous section that the federal government's authority over natural watercourses in a state is derived primarily from the commerce clause of the United States Constitution.¹¹³

¹⁰⁶*Pike Rapids Power Co. v. Minneapolis, St. P. & S. Ste. M. Ry.*, 99 F.2d 902 (8th Cir. 1938).

¹⁰⁷*Ibid.*

¹⁰⁸*United States v. Chicago, M., St. P. & P.R.R.*, 312 U.S. 592, 597 (1941).

¹⁰⁹See *Willink v. United States*, 240 U.S. 572 (1916); *Greenleaf Johnson Lumber Co. v. Garrison*, 237 U.S. 251 (1915); *Lewis Blue Point Oyster Cultivation Co. v. Briggs*, 229 U.S. 82 (1913).

¹¹⁰*Lewis Blue Point Oyster Cultivation Co. v. Briggs*, 229 U.S. 82 (1913).

¹¹¹62 STAT. 941 (1948), 28 U.S.C. §1497 (1952).

¹¹²*United States v. Cress*, 243 U.S. 316 (1917). See also *United States v. Kansas City Life Ins. Co.*, 339 U.S. 799 (1950). This doctrine has been strictly limited to nonnavigable streams. *United States v. Willow River Power Co.*, 324 U.S. 499 (1945); *United States v. Chicago, M., St. P. & P.R.R.*, 312 U.S. 592 (1941).

¹¹³Further federal authority over water resources within the state is derived from the property clause of the United States Constitution, which gives Congress the power "to dispose of and make all needful Rules and Regulations respecting the Territory or other Property belonging to the United States." U.S. CONST. art IV, §3, cl. 2. Although this provision is not of great importance in Florida, it has had tremendous significance in the development of water law in the West, where federal ownership of the public domain provided the basis for establishment of

State authority over its natural watercourses must of course find its source elsewhere. In addition to the control arising from its sovereignty over navigable waters and their beds, the state may regulate both navigable and nonnavigable waters on the basis of its inherent police power and its power to act for the protection of the general welfare.¹¹⁴ In the area of drainage, there is an express constitutional provision for state action.¹¹⁵

Pursuant to these powers, the state has chosen to act in several important areas of water management, flood control being perhaps the most extensively developed. The seriousness of the flood control problem in Florida is indicated by the frequency with which this problem was raised in the 1956 county hearings of the Florida Water Resources Study Commission.¹¹⁶ From a practical viewpoint, the most important flood control legislation concerning Florida is the federal and state legislation of 1948 and 1949 establishing the Central and Southern Florida Flood Control District.

Following the disastrous flood that engulfed most of South Florida in 1947, Congress in 1948, by an amendment to the 1936 Flood Control Act, authorized funds for a flood control project in this area on condition that the state participate in the project.¹¹⁷ The 1949 Florida Legislature in turn enacted a general flood control act¹¹⁸ and, to im-

the doctrine of prior appropriation in most of the Western states. See 3 U.S. PRESIDENT'S WATER RESOURCES POLICY COMM'N, REPORT: WATER RESOURCES LAW 33-52 (1950). Federal proprietary authority does have significance in Florida, however, since under it Congress has complete power over water and water rights on federal lands. Any state regulation of water rights in or affecting the Everglades National Park or areas such as the Ocala National Forest would, therefore, be subject to this federal power. It is the present federal policy to permit use of waters on these lands in accordance with state laws and regulations, but a permit must be secured from the federal government. 30 STAT. 36 (1897), 16 U.S.C. §481 (1952). In regard to the permits see 26 OP. ATT'Y GEN. 421 (1907).

¹¹⁴See *Peavy-Wilson Lumber Co. v. Brevard County*, 159 Fla. 311, 31 So.2d 483 (1947); *Hill v. State ex rel. Watson*, 155 Fla. 245, 19 So.2d 857 (1944).

¹¹⁵FLA. CONST. art. XVI, §28.

¹¹⁶See, e.g., 1956 REPORT, *supra* note 27, at 3, §II.A.1. (1956) (Bay County); *id.* at 12, §II.C.1. (Clay County); *id.* at 14, §II.A.1. (Columbia County); *id.* at 21, §II.A.1. (DeSoto County); *id.* at 23, §II.A.1. (Duval County); *id.* at 30, §II.C.2. (Glades County); *id.* at 32, §II.C.2. (Hardee County); *id.* at 38, §II.A.1. (Holmes County); *id.* at 44, §II.C.1. (Lee County); *id.* at 65, §II.A.1. (Pasco County); *id.* at 80, §II.C.2. (Volusia County).

¹¹⁷62 STAT. 1171, 1176 (1948), originally authorized by 46 STAT. 918, 925 (1930), as amended.

¹¹⁸Fla. Laws 1949, c. 25209, now FLA. STAT. c. 378 (1955).

plement this, added chapter 25214, Laws of 1949, creating the Central and Southern Florida Flood Control District. Section 16 of the general act, as amended by the 1955 Florida Legislature, authorized the district "to clean out, straighten, enlarge or change the course of any waterway, natural or artificial, within or without the district; . . . establish, maintain and regulate water levels in all canals, channels and reservoirs owned and maintained by the district; . . . and to hold and have full control over the works and rights-of-way of the district."¹¹⁹ This statute gives the Central and Southern Florida Flood Control District broad powers to control the physical contours of watercourses within the district and in addition, under its authority to regulate water levels, the power to interfere with the normal rights of use of the water by riparian owners.

It is not clear from the statute whether a riparian owner is entitled to damages from the district for changes in a watercourse that result in depriving him of the use of water or that raise the level of the watercourse resulting in flooding of his lands.¹²⁰ Although the district, as a subdivision of the state, may share the immunity of the state from tort actions for such harm,¹²¹ the statute does give the district eminent domain power;¹²² and it is arguable that when the district encroaches upon a riparian owner's rights it is in effect taking an easement in the watercourse and should be required to compensate him as though it had exercised its right of eminent domain.¹²³

The Legislature has enacted four types of drainage acts of statewide application. The General Drainage Act of 1913¹²⁴ authorized formation of drainage districts upon approval of the appropriate circuit courts of the state. Operations under this act may affect the rights of riparian owners on natural watercourses, inasmuch as section 28 provides that watercourses may be "connected with and be made a part of the works and improvements . . . of said district . . ."

¹¹⁹*Id.* §378.16.

¹²⁰A parallel problem involving flooding by state park authorities was uncovered by the 1956 county hearings. See 1956 REPORT, *supra* note 27, at 51, §II.A.2. (Manatee County).

¹²¹See *Bragg v. Board of Pub. Instr'n*, 160 Fla. 590, 36 So.2d 222 (1948); *Smoak v. Tampa*, 123 Fla. 716, 719, 167 So. 528, 529 (1936) (dictum); *cf. Elrod v. Daytona Beach*, 132 Fla. 24, 180 So. 378 (1938). *But cf. Hargrove v. Cocoa Beach*, 96 So.2d 130 (Fla. 1957).

¹²²FLA. STAT. §378.16 (1955).

¹²³*Cf. United States v. Causby*, 328 U.S. 256 (1946).

¹²⁴FLA. STAT. c. 298 (1955).

While the act provides for payment by the district for rights of way,¹²⁵ it does not make provision for payment for injury to natural watercourses, or for interference with the rights of riparian owners. If these owners are to recover for any loss, it would seem that recovery would depend upon the easement argument suggested above in connection with the taking of similar rights by the flood control district.

Supplementary to the General Drainage Act, the Legislature has provided for drainage by counties¹²⁶ and, in addition, for the drainage of swamps and overflow lands upon petition by the Board of County Commissioners of any county.¹²⁷ Like the General Drainage Act, the first of these statutes does not specifically provide for compensation for interference with riparian rights; but the latter statute, dealing with drainage of swamps and overflowed lands, does have a specific provision for the assessment of any damages that may be sustained as a result of the construction of the drainage ditches.¹²⁸ Although this latter statute does not specifically refer to damage to riparian rights in watercourses into which the ditches drain, such damages are arguably within the intendment of the act.

Although mosquito control districts are not ordinarily considered to perform functions similar to those of drainage districts, mosquito control acts may contain extensive drainage provisions. One of the several Florida mosquito control acts¹²⁹ authorizes counties to act as mosquito control districts and gives them drainage powers¹³⁰ that may interfere with riparian rights in the same way as the powers of the drainage districts. Two other mosquito control acts provide alternate means of establishing mosquito control districts upon the petition of affected freeholders;¹³¹ these acts likewise provide drainage powers that may affect riparian rights. None of these acts makes any provision for compensation to riparian owners. But, since these districts are entities of the state, the same arguments with respect to just compensation that were made in the case of the flood control district would seem applicable.

¹²⁵FLA. STAT. §298.30 (1955).

¹²⁶FLA. STAT. c. 157 (1955).

¹²⁷FLA. STAT. c. 156 (1955).

¹²⁸FLA. STAT. §156.06 (1955).

¹²⁹FLA. STAT. cc. 388-90 (1955).

¹³⁰FLA. STAT. §388.15 (1955).

¹³¹FLA. STAT. cc. 389-90 (1955).

Finally, there is one other type of district authorized by state-wide legislation that may affect riparian rights: the erosion prevention district.¹³² Although these districts were ostensibly authorized primarily for the purpose of combatting beach erosion, the language of the statute under which they were created is broad enough to cover the creation of erosion prevention districts in inland counties when necessary to control erosion of natural watercourses.¹³³ If such a district were created it would give rise to the same problems that arise from the operations of the other districts discussed.

In addition to districts created under authority of state-wide general legislation, at least ten types of special districts affecting water use and control have been created. These districts include drainage districts,¹³⁴ inlet districts,¹³⁵ improvement districts,¹³⁶ mosquito control districts,¹³⁷ navigation districts,¹³⁸ water supply districts,¹³⁹ sani-

¹³²FLA. STAT. c. 158 (1955).

¹³³An example of this type of erosion was discussed at the 1956 county hearings. See 1956 REPORT, *supra* note 27, at 12, §II.C.1. (Clay County).

¹³⁴*E.g.*, Fla. Laws Ext. Sess. 1925, c. 11644 (North LaBelle Drainage Dist., Glades County); Fla. Laws Ext. Sess. 1925, c. 11555 (Fellsmere Drainage Dist., Indian River County); Fla. Laws Ext. Sess. 1925, c. 11539 (Istokpoga Sub-Drainage Dist., Highlands County); Fla. Laws Ext. Sess. 1925, c. 11489 (Flagler and Volusia Counties Drainage Dist., Flagler and Volusia Counties).

¹³⁵*E.g.*, Fla. Spec. Acts 1955, c. 31340 (Ponce de Leon Inlet and Port Dist., Volusia County); Fla. Laws Ext. Sess. 1925, c. 11791 (Daytona and New Smyrna Inlet Dist., Volusia County); Fla. Laws Ext. Sess. 1925, c. 11693 (St. Lucie Inlet Dist., Palm Beach and St. Lucie Counties).

¹³⁶Fla. Spec. Acts 1955, c. 31153 (Cotee River Port Dist. and Auth., Pasco County); Fla. Spec. Acts 1953, c. 29596 (Halifax River Waterways Improv. Dist., Volusia County); Fla. Spec. Acts 1953, c. 29293 (authorized creation of improvement service districts, Monroe County); Fla. Laws Ext. Sess. 1925, c. 11486 (Ocean Shore Improv. Dist., Flagler and Volusia Counties).

¹³⁷Fla. Spec. Acts 1925, c. 11128 (Indian River Mosquito Control Dist., St. Lucie County).

¹³⁸*E.g.*, Fla. Spec. Acts 1955, c. 31182 (Pinellas County Water and Navig. Control Auth., Pinellas County); Fla. Spec. Acts 1955, c. 31071 (Windermere Spec. Navigable Canal Dist., Orange County); Fla. Laws Ext. Sess. 1925, c. 11431 (Upper St. Johns River Navig. Dist., Brevard and Seminole Counties); Fla. Spec. Acts 1925, c. 10956 (The Lakes Tohopekaliga-Kissimmee River Navig. Dist., Osceola County).

¹³⁹*E.g.*, Fla. Spec. Acts 1955, c. 30602 (granting additional and supplemental powers to any water district in Brevard County created pursuant to Fla. Laws 1951, c. 27419); Fla. Spec. Acts 1955, c. 30567 (authorizing Bay County to construct, or acquire, and operate a water system); Fla. Spec. Acts 1953, c. 29505 (North Beach Water Dist., St. Lucie County).

tary districts,¹⁴⁰ conservation districts,¹⁴¹ service districts,¹⁴² and irrigation and soil conservation districts.¹⁴³ All of them, through their powers to interfere with natural watercourses, may affect riparian rights in the same way as the districts created by the general legislation. There have been no decisions of any consequence concerning the effect of these districts upon such rights. These districts, however, will play an ever-increasing part in the development of the state's water resources and a critical role in the implementation of the 1957 Water Resources Law. A detailed study of their development and operation is badly needed.¹⁴⁴

POLLUTION OF WATERCOURSES

The pollution of Florida's watercourses is a matter of grave concern to the citizens of the state. An unhappily large number of pollution problems were raised at the soil conservation district hearings in 1954¹⁴⁵ and at the county hearings held by the Florida Water Resources Study Commission in 1956.¹⁴⁶ The pollution complained of

¹⁴⁰E.g., Fla. Spec. Acts 1955, c. 30558 (authorizing Commissioners of Alachua County to create sanitary districts); Fla. Spec. Acts 1953, c. 29587 (Volusia County Sanitary Dist.); Fla. Spec. Acts 1953, c. 29502 (St. Lucie County Sanitary Dist.) (including mosquito control); Fla. Spec. Acts 1953, c. 29425 (Long Key Sewer Dist., Pinellas County).

¹⁴¹Fla. Spec. Acts 1955, c. 30653 (Tsala Apopka Basin Recreation and Water Conservation Control Auth., Citrus County); Fla. Spec. Acts 1953, c. 29594 (Fresh Water Conservation Bd., Volusia County); Fla. Spec. Acts 1953, c. 29222 (Oklawaha Basin Recreation and Water Conservation and Control Auth., Lake County).

¹⁴²E.g., Fla. Spec. Acts 1955, c. 30927 (authorizing creation of Special Improvement Service Districts by Board of County Comm'rs, upon petition, in unincorporated areas of Lee County); Fla. Spec. Acts 1953, c. 29423 (Gulf Beach Serv. Dist., Pinellas County).

¹⁴³Fla. Spec. Acts 1953, c. 28935 (Tindall Hammock Irrigation and Soil Conservation Dist., Broward County).

¹⁴⁴See Maloney, *Florida's New Water Resources Law*, 10 U. FLA. L. REV. 119, 138-41, 152 (1957).

¹⁴⁵The survey indicates 16 problems in 14 counties. See 1954 REPORT, *supra* note 27, §II.E.1., problems 1-5 (Alachua, Hamilton, Okeechobee, St. Lucie, and Walton Counties); *id.* §II.E.2., problems 1-8 (Bradford, Charlotte, DeSoto, Escambia, Manatee, Pasco, and Putnam Counties); *id.* §II.E.3., problems 1-3 (Charlotte, Lake, and Orange Counties).

¹⁴⁶See 1956 REPORT, *supra* note 27, at 1, §II.E.2. (Alachua County); *id.* at 4, §II.E.1. (Bradford County); *id.* at 9, §II.E.1. (Calhoun County); *id.* at 10, §II.E.2. (Charlotte County); *id.* at 15, §II.E.2. (Columbia County); *id.* at 21, §II.E.1. (DeSoto County); *id.* at 23, §II.E.2. (Duval County); *id.* at 26, §II.E.2. (Escambia

resulted in part from municipal wastes,¹⁴⁷ in part from industrial wastes,¹⁴⁸ and in part from the use of insecticides,¹⁴⁹ with the industrial wastes by far the most serious offender. There are statutes of both general and special application designed to prevent this pollution. Why, then, does it continue on such a wide scale? An analysis of these statutes and the decided cases may provide part of the answer.

Remedies Available to an Individual

At common law there are three possible approaches to the problem of pollution. In the first place, the pollution may be classed as a nuisance, making applicable the laws regarding prevention of nuisances.¹⁵⁰ Second, the dumping of wastes, particularly industrial

County); *id.* at 27, §II.E.1. (Franklin County); *id.* at 33, §II.E.1. (Hardee County); *id.* at 35, §II.E.1. (Hernando County); *id.* at 37, §II.E.2. (Hillsborough County); *id.* at 38, §II.E.1. (Holmes County); *id.* at 40, §II.E.1. (Indian River County); *id.* at 42, §II.E.1. (Jefferson County); *id.* at 46, §II.E.2. (Leon County); *id.* at 49, §II.E.2. (Madison County); *id.* at 51, §II.E.1., at 52, §II.E.2. (Manatee County); *id.* at 58, §II.E.2. (Okaloosa County); *id.* at 60, §II.E.2. (Okechobee County); *id.* at 62, §II.E.1. (Orange County); *id.* at 63, §II.E.1. (Palm Beach County); *id.* at 68, §II.E.2. (Pinellas County); *id.* at 71, §II.E.2. (Putnam County); *id.* at 74, §II.E.1., at 75, §II.E.2. (Santa Rosa County); *id.* at 76, §II.E.1. (Seminole County); *id.* at 77, §II.E.2. (Sumter County); *id.* at 78, §II.E.1. (Taylor County); *id.* at 83, §II.E.1. (Walton County).

¹⁴⁷*E.g.*, 1956 REPORT, *supra* note 27, at 12, §II.E.1. (Clay County) (municipalities and naval vessels polluting St. Johns River); *id.* at 58, §II.E.1. (Okaloosa County); *id.* at 73, §II.E.1. (St. Lucie County) ("Lack of sewage disposal facilities at towns along the river has turned the Indian River into a giant cesspool, rated by the State Board of Health as a health hazard"); *id.* at 74, §II.E.1. (Santa Rosa County); *id.* at 76 §II.E.2. (Seminole County) (pollution of stream has ruined fishing and swimming and sometimes gives off an offensive odor).

¹⁴⁸1956 REPORT, *supra* note 27, at 3, §II.E.1. (Bay County); *id.* at 15, §II.E.2. (Columbia County) (chemical waste); *id.* at 33, §II.E.1. (Hardee County); *id.* at 49, §II.E.2. (Madison County) (Georgia pulp mill); *id.* at 51, §II.E.1. (Manatee County) (sanitary and laundry wastes); *id.* at 56, §II.E.1. (Martin County); *id.* at 75, §II.E.2. (Santa Rosa County) (Alabama paper mill); *id.* at 83, §II.E.2. (Walton County) (saw mill wastes). Citrus wastes have also been mentioned as a polluting agent.

¹⁴⁹1954 REPORT, *supra* note 27, §II.E.3., problem 1. Insecticide sprays used by farmers and grove owners in Charlotte County, some of which were water soluble and very toxic to humans, drained into a creek. The city had no authority over this, and the city water supply was very much endangered. See also *id.* problems 2 (a lake in Lake County) and 3 (drainage canal in Orange County).

¹⁵⁰See generally McRae, *The Development of Nuisance in the Early Common*

wastes, into a stream might be considered to result from a nonnatural use of the land, to which the common law of England attached strict or absolute liability.¹⁵¹ A Florida circuit court in *Ague v. American Agric. Chem. Co.*¹⁵² rejected the strict liability approach and limited potential liability to the third approach, requiring proof of negligence on the part of the industry as a prerequisite for liability.

Some courts have protected municipalities from suits for damages for injuries resulting from sewage disposal activities on the theory of governmental immunity.¹⁵³ The Florida Court, however, has apparently recognized municipal liability for personal injury to a riparian owner stemming from sewage pollution of a stream, although the question of immunity does not seem to have been raised on appeal.¹⁵⁴

Even assuming that liability is established, the possibility of recovery of money damages is not always a sufficient deterrent to prevent industrial pollution. Large industrial polluters are often willing to settle for damages as a part of the cost of carrying on their business. And, in some situations, by resisting suit the industry can make the remedy by way of damages so expensive that a private individual will be unwilling to litigate. If individuals attempt to band together for the purpose of bringing suit for damages on the theory of nuisance, they will be confronted by cases denying them the right to sue jointly for damages because the damages suffered by them are not the same.¹⁵⁵ Moreover, if one landowner undertakes to join in a single suit several polluters whose wastes combine to damage him, he may be blocked by an early Florida case denying the right of joinder in this situation on the ground that the defendants were not acting in concert.¹⁵⁶

As an alternative to an action for damages, the individual riparian owner may seek an injunction in equity against further

Law, 1 U. FLA. L. REV. 27 (1948); 56 AM. JUR., *Waters*, §§411, 432 (1947).

¹⁵¹Rylands v. Fletcher, L.R. 3 H.L. 330 (1868).

¹⁵²5 Fla. Supp. 133 (1953).

¹⁵³See 18 McQUILLIN, MUNICIPAL CORPORATIONS §53.131 (3d ed. 1950); *cf.* cases cited note 121 *supra*.

¹⁵⁴Lakeland v. Douglass, 143 Fla. 771, 197 So. 467 (1940).

¹⁵⁵See Ainsworth v. Allen, Kirby 145 (Conn. 1786); CLARK, CODE PLEADING §56 (1947).

¹⁵⁶Standard Phosphate Co. v. Lunn, 66 Fla. 220, 63 So. 429 (1913). The validity of this case may be questioned in the light of the liberality of joinder made possible under the 1954 Florida Rules of Civil Procedure, but the case has not yet been overruled.

pollution; and if the injunction is granted the equity court may award damages for past harm. The injunctive remedy is a much more effective sanction than a suit at law for damages because the result will be an order from the court to the polluter to cease his wrongful activity. In the absence of legislation, however, the Florida Court has indicated that the individual must do more than establish the fact of pollution — he must also show substantial damage to himself. Failure to establish this damage will result in denial of an injunction.¹⁵⁷ Even if substantial damage is established, the riparian owner may nevertheless be denied an injunction on the balance of convenience doctrine.¹⁵⁸ This doctrine is particularly likely to be applied when the offender is a municipality whose citizens will be greatly harmed if an injunction is granted, since the result would be to prevent the disposal of sewage. In at least one case the Supreme Court of Florida has denied injunctive relief on this ground.¹⁵⁹ Under such circumstances the private individual is left with very little remedy for the prevention of stream pollution. No Florida cases were found in which injunctive relief was granted on a common law basis, although the Florida Supreme Court has stated, by way of dictum, that riparian owners have the right to have water kept free from pollution.¹⁶⁰

Remedies Available to Government Agencies

a. State Action

Pollution of a navigable stream could be considered a public nuisance under traditional common law doctrines, on the theory that it interferes with the public's right to use of the watercourse. This might constitute sufficient grounds for injunctive relief at the request of the appropriate governmental agency,¹⁶¹ although no Flor-

¹⁵⁷Bray v. Winter Garden, 40 So.2d 459 (Fla. 1949).

¹⁵⁸See Maloney, *The Balance of Convenience Doctrine in the Southeastern States, Particularly As Applied to Water*, 5 S.C.L.Q. 159 (1952).

¹⁵⁹Lakeland v. State *ex rel.* Harris, 143 Fla. 761, 197 So. 470 (1940).

¹⁶⁰See Ferry Pass Inspectors' & Shippers' Ass'n v. Whites River Inspectors' & Shippers' Ass'n, 57 Fla. 399, 402, 48 So. 643, 645 (1909) (dictum).

¹⁶¹See Barrett v. Mount Greenwood Cemetery Ass'n, 159 Ill. 385, 42 N.E. 891 (1896); Auger Silk Dyeing Co. v. East Jersey Water Co., 88 N.J.L. 273, 96 Atl. 60 (1915); Pennsylvania R.R. v. Sagamore Coal Co., 281 Pa. 233, 126 Atl. 386 (1924); cf. Bouquet v. Hackensack Water Co., 90 N.J.L. 203, 101 Atl. 379 (1917); Town

ida cases recognizing this common law right were found.

As an alternative, governmental control of pollution may be established by legislation. There are a number of pollution acts in Florida, both general and special. The general Pollution of Waters Act of 1913¹⁶² forbids any deposit of deleterious substances in the rivers of the state if such substances are "liable to affect the health of persons, fish, or livestock."¹⁶³ Enforcement of this law is placed under the supervision of the State Board of Health. On its face the statute seems broad enough to prevent pollution of Florida's watercourses, but the law as enacted contains no provisions for injunctive enforcement; criminal penalties only are provided for its violation. The number of complaints concerning industrial pollution in the 1954 and 1956 state-wide surveys indicated that stronger enforcement provisions were needed.

In an apparent effort to plug this loophole, the State Board of Health in 1955 obtained an amendment to the chapter enumerating the general powers of the Board.¹⁶⁴ This amendment gives the Board the power "to enjoin and abate nuisances dangerous to the health of persons, fish, and livestock." The amendment did not strengthen the Pollution of Waters Act itself, since that act does not specifically designate unlawful pollution as a nuisance. In 1957 another effort was made to increase state control over pollution. An additional section was added to the Pollution of Waters Act, specifically authorizing the State Board of Health to apply for injunctions to restrain violations of the act.¹⁶⁵ Both temporary and permanent injunctions may be issued, although temporary injunctions issued without notice and hearing require posting of bond; and *ex parte* orders limiting or preventing operation of industrial, manufacturing, or processing plants must be predicated on a clear showing of irreparable injury. In the event that a temporary injunction is issued without bond, the state waives its sovereign immunity from suit for damages should the order prove to be improper, erroneous, or improvidently granted. It will remain to be seen how effective the Board's new power will be.

In addition to the enforcement powers granted to the State Board of Health, the boards of county commissioners of counties estab-

of *Shelby v. Cleveland Mill and Power Co.*, 155 N.C. 196, 71 S.E. 218 (1911) (statute).

¹⁶²FLA. STAT. c. 387 (1955), enacted as Fla. Laws 1913, c. 6443.

¹⁶³FLA. STAT. §387.08 (1955).

¹⁶⁴FLA. STAT. §381.031 (4) (b) (1955).

¹⁶⁵Fla. Laws 1957, c. 57-216.

lishing water or sanitary sewer systems under the County Water System and Sanitary Financing Act¹⁶⁶ are empowered to seek injunctions¹⁶⁷ against pollution of any source of supply of water for human consumption to be used in a water supply system established under the act. The effectiveness of this act depends on the willingness of county authorities to take action under it.

There are two other pollution acts general in application but severely limited in scope. The first, dealing with wastes from mines,¹⁶⁸ authorizes the boards of county commissioners to seek injunctions to prevent such wastes from escaping into the streams of the state. This statute may be accomplishing the purpose for which it was designed, since neither the 1953 Soil Conservation Survey nor the 1956 Problems Inventory disclosed complaints concerning pollution resulting from waste from mines. The statute has several weaknesses, however, inasmuch as it requires, as a condition to obtaining an injunction, proof that the person conducting mining operations is not using due diligence to prevent the escape of waste or debris. It also provides that the escape of debris because of excessive rains or floods shall not be an offense within the meaning of the chapter.¹⁶⁹ The second limited act condemns the polluting of fresh waters if the pollution is sufficient to injure or kill fish.¹⁷⁰ Here again the act contains a major flaw. The only enforcement provisions are criminal sanctions after the damage is done.

The 1957 amendment to the Pollution of Waters Act is a new and improved weapon in the state's battle against pollution. If it does not prove adequate to do the job, legislative consideration might be given to authorizing appropriate groups of private individuals to seek injunctive relief if public authorities failed to act.¹⁷¹ Similar legislation already exists in Florida in connection with suits to enjoin gambling establishments and related legislatively-declared public nuisances.¹⁷²

¹⁶⁶FLA. STAT. c. 153 (1955), enacted as Fla. Laws 1955, c. 29837.

¹⁶⁷FLA. STAT. §153.03 (10) (1955).

¹⁶⁸FLA. STAT. c. 533 (1955).

¹⁶⁹FLA. STAT. §§533.02-.03 (1955).

¹⁷⁰FLA. STAT. §372.85 (1955).

¹⁷¹See MASS. ANN. LAWS c. 139, §16 (1950), *Carleton v. Rugg*, 149 Mass. 550, 22 N.E. 55 (1889).

¹⁷²FLA. STAT. §§64.11, 823.05 (1955); see *Valdez v. State ex rel. Farrior*, 142 Fla. 123, 194 So. 388 (1940); *National Container Corp. v. State ex rel. Stockton*, 138 Fla. 32, 189 So. 4 (1939); *Gullatt v. State ex rel. Collins*, 169 Ga. 538, 150 S.E. 825 (1929); *Chicago Fair Grounds Ass'n v. People*, 60 Ill. App. 488 (1895).

Although there are numerous special acts in Florida prohibiting or otherwise controlling pollution,¹⁷³ two recent special acts in effect undermine the existing pollution control laws, at least within the area in which these acts operate. These acts declare Nassau County¹⁷⁴ and Taylor County¹⁷⁵ to be "industrial counties" and state that it is in the interest of the public that industry be empowered to discharge sewage and industrial and chemical wastes into the tidal waters of Nassau County and into the Fenholloway River in Taylor County. Such attempted limitations on pollution control for the benefit of special interests were the subject of severe criticism at the 1956 hearings of the Water Resources Study Commission. If attacked, the legislation might well be held unconstitutional on the ground that it deprives riparian owners on these waters of property rights without compensation, in violation of the state and federal constitutions.¹⁷⁶

b. Federal Action

Until 1948 Congress concerned itself only with pollution that would result in a direct impediment to navigation, and prohibitions generally were aimed at waste "other than that flowing . . . in a liquid state."¹⁷⁷ In 1948 a broad anti-pollution law, the Federal Water Pollution Control Act, was enacted.¹⁷⁸ Congress made reference not only to navigation but also to public health and welfare as justification for the legislation. The act contains provisions for injunctive action to halt pollution nuisances, but under the original legislation the Attorney General was authorized to initiate suits only if the state in which the pollution originated consented to such a suit. This limitation on the enforcement of the act was removed by amendment in 1956.¹⁷⁹ Under the amended act the Surgeon General must first request the water pollution control agency of the polluting state to

¹⁷³E.g., Fla. Spec. Acts 1955, c. 31330; Fla. Spec. Acts 1955, c. 31238 (prohibiting pollution in St. Lucie County); Fla. Spec. Acts 1955, c. 30631 (prohibiting pollution in Broward County); Fla. Spec. Acts 1925, c. 11288 (control of fishing in Washington County); Fla. Spec. Acts 1925, c. 10765 (control of fishing in Lafayette County); Fla. Spec. Acts 1925, c. 10686 (protection of fish in Indian River County); Fla. Spec. Acts 1925, c. 10664 (protection of fish in Hardee County).

¹⁷⁴Fla. Spec. Acts 1941, c. 21415.

¹⁷⁵Fla. Spec. Acts 1947, c. 24952.

¹⁷⁶U.S. CONST. amend. XIV, §1; FLA. CONST. Decl. of Rights, §12.

¹⁷⁷25 STAT. 209 (1888), as amended, 33 U.S.C. §441 (1952).

¹⁷⁸62 STAT. 1155 (1948), as amended, 33 U.S.C. §466 (1952).

¹⁷⁹70 STAT. 498 (1956).

take necessary remedial action. If action is not taken within six months, a hearing is scheduled before a board composed in part of representatives from the affected states. Finally, assuming that the pollution continues, the Secretary of Health, Education and Welfare may request the Attorney General to initiate suit at the written request of the pollution control agency of the injured state. Although the act thus provides for federal injunctive sanctions, the underlying purpose of the act is apparently to provide a means by which the federal government, through the Surgeon General, may provide technical assistance to state agencies and industries in the formulation and execution of state pollution control programs.

The Federal Water Pollution Control Act is also designed to encourage states to negotiate compacts between themselves for the control of interstate pollution. The act gives blanket consent to the states for negotiation of interstate compacts for this purpose.¹⁸⁰ The compacts must, however, be approved by Congress, and as yet Congress has approved no compacts initiated under the act. Prior to the enactment of the 1948 law, several interstate compacts for the control and abatement of pollution were separately approved by Congress.¹⁸¹ Several problems reported to the county committees of the Florida Water Resources Study Commission involved pollution of Florida streams by industries in Georgia and Alabama.¹⁸² Perhaps the eventual solution of some of these problems may be found by use of this act.

Another answer to interstate pollution problems might be for the State of Florida, acting as *parens patriae*, to bring an original action in the United States Supreme Court to enjoin the industries in the offending states and force them to correct the pollution nuisance. In *Georgia v. Tennessee Copper Co.*¹⁸³ the State of Georgia successfully enjoined industries in Tennessee on this basis. Industries near the border in Tennessee were polluting the air in Georgia; the noxious fumes caused personal discomfort to citizens and ruined crops and foliage. Tennessee stressed the importance of the copper

¹⁸⁰62 STAT. 1155 (1948), as amended, 33 U.S.C. §466 (c) (1952).

¹⁸¹*E.g.*, 61 STAT. 682 (1947); 54 STAT. 7408 (1940); 52 STAT. 150 (1938); 49 STAT. 932 (1935).

¹⁸²1956 REPORT, *supra* note 27, at 46, §II.E.2. (Leon County) (pollution by Georgia industries); *id.* at 49, §II.E.2. (Madison County) (pollution by paper mill in Georgia); *id.* at 75, §II.E.2. (Santa Rosa County) (pollution by pulp mill in Alabama).

¹⁸³206 U.S. 230 (1907).

industry and asked the Court to apply the balance of convenience doctrine. The Court indicated great reluctance to apply the doctrine against a state acting in a quasi-sovereign capacity and granted a mandatory injunction against the offending industries, commanding them to take corrective measures. Individual citizens of Georgia had previously been denied the same injunctive relief in the Tennessee courts on the basis of the balance of convenience doctrine.¹⁸⁴

Prevention of another type of pollution, that caused by salt water intrusion, has also received some congressional attention.¹⁸⁵ This is an acute problem in some areas of Florida where the erection of salt water barriers in navigable streams is necessary for the protection of municipal water supplies. As a matter of law, the consent of the federal government may be necessary before these barriers are constructed,¹⁸⁶ though doubtless this consent can be readily obtained.

FUTURE NEEDS AND PROBLEMS

In the past, Florida's streams have moved faster than the laws that gave direction to their use and development. This was probably to be expected in a state in which until recent years supply far outran consumptive demand and streams were more frequently used for disposal than supply.

Earlier litigation for the most part involved nonconsumptive uses, primarily navigation. The law in this field has become relatively well settled, although its application to individual fact situations, such as the location of high and low water marks, will continue to present difficult problems.

As yet little thought has been given by the Legislature or the courts to the protection of recreational users of Florida's streams.¹⁸⁷ These users, however, are probably sufficiently protected by the extremely broad judicial definition of navigability,¹⁸⁸ which keeps most of Florida's streams available for recreational use by the public.

¹⁸⁴*Madison v. Ducktown Sulfur, Copper & Iron Co.*, 113 Tenn. 331, 83 S.W. 658 (1904).

¹⁸⁵*E.g.*, 50 STAT. 844, 850 (1937), authorizing the California Central Valley Project.

¹⁸⁶See p. 315 *supra*.

¹⁸⁷*But cf. Taylor v. Tampa Coal Co.*, 46 So.2d 392 (Fla. 1950) (one owner on nonnavigable lake, using lake for employees' recreation, had right to enjoin other owner from irrigating to the extent of injuriously lowering lake level).

¹⁸⁸See p. 309 *supra*.

In the area of drainage, the most serious problems are physical rather than legal. Cultivation and development of upland areas may place an additional drainage burden on a stream, overtaxing downstream bridges and culverts that were adequate to handle the flow in an earlier day when only wooded and relatively undeveloped areas drained into the stream. Thus the result of upstream development may be the flooding of downstream lands.¹⁸⁹ The rights of riparian owners on such streams are in need of legislative clarification.

In the area of pollution there are still many problems to be solved, and constant vigilance by the State Board of Health will be necessary to prevent further contamination as the use of Florida's streams increases. Fortunately the machinery now apparently is available to control this problem in most areas. The related problem of salt water intrusion is perhaps more difficult of solution.¹⁹⁰

In so far as consumptive use of Florida's streams is concerned, the 1957 Water Resources Law provides machinery for putting the excess flow of these streams to profitable use.¹⁹¹ Uncertainty concerning the depth of riparian holdings, however, may still prevent full use of Florida's streams for agricultural and other purposes. In this area the Legislature might well consider defining riparian land in such a way as to assure the broadest interpretation of the extent of these holdings.¹⁹² One important method of increasing the use of water in streams is through storage behind dams. There is adequate provision in Florida law for dams for power development; but, as in other areas of consumptive use, further legislation would be helpful to encourage and control the use of these structures for agricultural and similar purposes. The legislation should, of course, protect the public right of navigation as well as the rights of riparian owners to obtain water in times of drought or low flow.

Additional study of the use of water management districts as a means of more fully utilizing available supplies is also indicated.¹⁹³

¹⁸⁹See note 27 *supra*.

¹⁹⁰The 1957 Water Resources Law provides at least one means of controlling salt water intrusion through the establishment of water development and conservation districts in critical areas. Fla. Laws 1957, c. 57-380, §11. Since salt water intrusion primarily affects ground water supplies, it will be discussed in detail in the next article in this series.

¹⁹¹See Maloney, *Florida's New Water Resources Law*, 10 U. FLA. L. REV. 119, 138-46 (1957).

¹⁹²See *id.* at 132 n. 57.

¹⁹³See note 144 *supra*.

Development of a model law for the creation of these districts would be very helpful.

It perhaps is fortunate that there is as yet little law governing the consumptive use of water from Florida's streams. The way has been left open for sound future development in this area. The 1957 Water Resources Law was the first major step in a projected long-range program aimed toward making beneficial utilization of Florida's priceless water resources.¹⁹⁴ In coming sessions of the Legislature the new Department of Water Resources of the State Board of Conservation will be in a position to recommend legislation looking toward filling the gaps that remain.

An analysis of the present state of Florida law with regard to man-made channels, underground streams, diffused surface water, and ground water will be contained in the next article in this series.

¹⁹⁴Fla. Laws 1957, c. 57-380; see Maloney, *Florida's New Water Resources Law*, 10 U. FLA. L. REV. 119 (1957).