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JAMES N. CORBRIDGE, JR.*

Surface Rights in Artificial Watercourses

INTRODUCTION

Artificial watercourses occur when, through other than natural causes, a waterbody is created where none previously existed, or when existing waterbodies are redirected or expanded, covering areas of land previously dry. Where artificial watercourses exist, problems can arise in a variety of settings:

—A residential developer creates a common artificial pond for the benefit of the homeowners, feeding that pond from pumped groundwater. Do owners of homes adjacent to the pond have rights to use its surface that are superior to those of other homeowners in the development?
—The builder of a dam, having acquired a flowage easement by purchase, condemnation, or prescription, backs water over the lands of an adjacent owner, and a lake or reservoir is created that is at least partially artificial. Who has the rights to the use of the surface of such water, and what happens when, after a period of years, the dam builder seeks to remove the dam and return the waters to their previous, natural condition?
—A man-made canal is used to divert waters from their natural course and carries them across the lands of another. Does the owner of those lands have the right to use the surface of the canal?
—Water breaks through a levee and floods farmlands adjacent to a large river, and the owner of the flooded land chooses not to repair the levee. Does that owner have a right to use his newly flooded property as a private fishing area or must he share these privileges with the public at large?

The solution of such problems requires an analysis of the rules governing both public and private rights in artificial waters. Considerable confusion surrounds these rights, particularly the rights of the public and

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adjacent landowners to use the surface of such waters for recreational and other nonconsumptive purposes. In part, this confusion is attributable to the historical development of the law in this area and the limited fact situations in which, until quite recently, issues about the use of artificial waters have arisen. Another factor is the complexity of the legal considerations associated with the nonconsumptive surface use of natural waters. These rules do not lend themselves perfectly to the solution of the distinct problems presented by artificial water, but because courts have often analogized the law of artificial waters to that of natural waters, analysis of artificial water problems requires some understanding of the legal principles pertaining to natural waters. These principles include the substantive scope of the rights asserted in any particular case, concepts of navigability under both federal and state standards, ownership of the bottom of a watercourse, common law and common use approaches to the sharing of surface rights, and the impact of state statutes and judicial decisions expanding the scope of public rights.

This article will first examine the application of these principles to problems dealing with rights in natural waters. It will then consider a number of situations involving artificial waters, analyze the existing law and, in some cases, suggest reform. Nonconsumptive surface uses, both by the public and by adjacent landowners, will be the focus of this discussion.²

PRIVATE AND PUBLIC RIGHTS IN THE SURFACE USE OF NATURAL WATERS

Private rights are those rights to the use of the surface of a natural waterbody, derived either from ownership of the bottomland³ or, more frequently, from ownership of contiguous lands. These are the familiar nonconsumptive riparian rights, identified and discussed in numerous cases.⁴ To determine if a private owner is entitled to such rights, one must examine that owner’s property deed to ensure that the land bears the proper relationship to the water in which rights are claimed.⁵ In states requiring abutting ownership, the calls of the deed must generally run to

². Although problems concerning rights of landowners to make consumptive uses of artificial waters do occur, such occasions are infrequent. For an example of such a dispute see Chowchilla Farms, Inc. v. Martin, 219 Cal. 1, 25 P.2d 435 (1933).
³. The term bottomland, as used in this article, means the lands comprising the bed of the waterbody, ordinarily between the high water marks.
⁵. For a general discussion, see Farnham, The Permissible Extent of Riparian Land, 7 LAND & WATER L. REV. 31 (1972).
the ordinary high water mark. In states requiring bottom ownership, that fact must be established on behalf of the would-be riparian. In those bottom-ownership jurisdictions following the common use theory with regard to surface rights, the extent of bottom ownership is unimportant; where the contrasting common law approach is employed, the amount of bottomland owned will determine the area of the surface available for use by a particular owner.

Public rights are those rights a person may exercise as an individual member of the public. They do not include rights available to that person as a licensee or permittee of a public agency which has obtained surface rights through the acquisition of riparian land. A number of theories exist by which the public at large can obtain the right to the use of the surface of a waterbody. Each theory conditions the exercise of public rights on the acquisition of legal access to the water by the public.

The relationship between public and private rights is important. Both may exist in a given waterbody at the same time. In such circumstances the courts may require private rights to give way to overriding public rights, or take rights said to be based on private riparian landownership and instead characterize them as rights which the riparian shares with other members of the public, particularly when conflicting public rights are being asserted.


7. See, e.g., Wasserburger v. Coffee, 180 Neb. 149, 156-57, 141 N.W.2d 738, 744, modified on reh'g, 180 Neb. 569, 144 N.W.2d 209 (1966).

8. The common use approach gives a bottomland owner beneficial use of the entire surface of the waterbody while the common law rule restricts use to the area of the surface overlying one's bottomland. See infra notes 88-91 and accompanying text.

9. See Botton v. State, 69 Wash. 2d 751, 420 P.2d 352 (1966). In Botton, the state was treated as a riparian owner due to its purchase of a waterfront lot on Phantom Lake which it developed as a public fishing access area. Those members of the public who took advantage of the access area were treated as licensees of the state rather than as individual members of the public exercising their "public rights" to fish on the lake. Thus, the state had a duty to regulate the number and conduct of its licensees so as to prevent any undue interference with the rights of other riparian owners on the lake. By treating the public as licensees of the state, the more difficult question concerning the right of individual members of the public to fish in the waters of the lake was avoided. It is interesting to note that the state Game Department later closed the public access area at Phantom Lake. The Department was unable to work out an agreement limiting access and use with littoral owners and did not have sufficient funds in its budget to provide a full-time employee to police the area. See C. MEYERS & D. TARLOCK, WATER RESOURCE MANAGEMENT 1018 (2d ed. 1980).

10. See infra text accompanying notes 51-125.


12. See infra notes 20-23 and accompanying text.
The Substance of the Rights

Access and Navigation

Although the rights of access and navigation are closely related, they should be considered separately to avoid confusion. Access refers to a riparian’s right to move from his adjacent dry land onto the surface of the waterbody, and is an obvious prerequisite to enjoyment of the other rights of surface use. The courts have consistently protected this right, at least against interference by other riparians. The right of navigation, on the other hand, involves the opportunity to move across the surface of the waterbody by boat, in rafts, on waterskis, and presumably on ice skates in the appropriate circumstances. The right to navigate is not without limit, particularly where navigable waters are involved. Riparian owners along the Colorado River, for example, cannot legitimately complain that dams and other obstructions prevent them from “navigating” from their property to the Gulf of California. Such a broad right of navigation would preclude public entities from constructing many public works projects of great social utility. The right of navigation of private riparians is further restricted in those states following the common law approach to the use of the surface. The public right of navigation is an extension of the right of access because access puts the private owner in a position to “navigate.”

Public access is meaningful only in the limited sense that a member of the public must reach the surface of a waterbody without trespassing on private property in order to exercise surface rights. This may be accomplished either by acquiring a right of access from a riparian owner,  


14. See, e.g., Ferry Pass Inspectors’ & Shippers’ Ass’n v. Whites River Inspectors’ & Shippers’ Ass’n, 57 Fla. 399, 48 So. 643 (1909) (plaintiff’s access blocked by defendant’s logging operations); Turner v. Holland, 54 Mich. 300, 20 N.W. 51 (1884); Turner v. Holland, 65 Mich. 453, 33 N.W. 283 (1887) (plaintiff’s access blocked by defendant’s booming and storage of sawlogs); Northern Pac. Ry. v. Slade Lumber Co., 61 Wash. 195, 112 P. 240 (1910) (plaintiff could not enjoin defendant’s use of wharf as a riparian owner); Delaplaine v. Chicago & N.W.R.R., 42 Wis. 214 (1877) (plaintiffs were compensated for interference with their right of access to a navigable lake by a railway built by defendant); 1 H. FARNHAM, WATERS AND WATER RIGHTS § 66 (1904). See also Annot., 21 A.L.R. 206 (1922) (right to damages for destruction of access to navigation); Annot., 15 A.L.R. 2d 318 (1951) (cases on preliminary mandatory injunctions to protect riparian rights).


16. See infra notes 88–91 and accompanying text.

or by reaching the water over publicly owned property, such as a highway or public boat landing.

The public right of navigation exists in waters which have been made available for public use, either through classification as "navigable" under federal or state tests, or by virtue of some other theory, such as a state constitutional provision establishing public ownership of all waters. When individuals, acting as members of the public, obtain navigation rights in a waterbody, riparian owners on that waterbody who assert private navigational rights may find the rights characterized as merely rights shared in common with the general public. The harsh results that can follow are well illustrated by a California case, *Colberg, Inc. v. State of California.* In *Colberg,* plaintiffs owned shipyards at the inland end of a navigable channel. The yards specialized in the repair and outfitting of ocean-going ships. The state proposed to put two fixed freeway bridges, each with a vertical clearance of 45 feet, across the seaward end of the channel, effectively eliminating the passage of large ships from the ocean to the shipyards. The shipyard owners asserted an illegal interference with their rights of navigation and access. In disposing of the claim of impairment of navigation, the California Supreme Court pointed out that because the waters were navigable, the rights asserted by private riparians were only rights shared with other members of the public. These did not qualify as the private rights necessary to support a constitutional claim to compensation as against the state. Furthermore, because the plaintiffs' right of access from land to water was not impaired, no compensation could be claimed on that theory either. Plaintiffs' effort to have the traditional right of access expanded into a broader concept of access to the oceans was rejected.

**Fishing**

Private rights to fish in a waterbody merit separate treatment because they stem from different common law origins than other rights associated with riparian ownership. Under the English common law, the right to fish was associated with ownership of the bottom rather than with ownership

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18. *See infra* notes 53–81 and accompanying text.
22. *Id.* at 416, 432 P.2d at 8, 62 Cal. Rptr. at 406.
23. *Id.* at 422, 432 P.2d at 12, 62 Cal. Rptr. at 410.
of abutting uplands. Many American courts have adopted this rule, although some have rejected it. In those cases where a riparian owns only uplands, he could be restricted from fishing, yet still be able to exercise other riparian rights. In waters whose bottoms were owned by the state, no private rights to fish would exist under the English approach. Upland owners would be limited to those fishing rights which were enjoyed by members of the public, subject to state regulation. Public fishing rights may arise from public ownership of particular bottoms, or where waters have been declared open to the public under some other theory.

Wharfing and Filling

Wharfing and filling are almost exclusively exercised as private riparian

24. See e.g., Pearce v. Scotcher, 9 Q.B.D. 162 (1882); Reece v. Miller, 8 Q.B.D. 626 (1882); see 2 H. FARNHAM, WATERS AND WATER RIGHTS § 397a (1904); 3 J. KENT, COMMENTARIES 410 (3d ed. 1836).


26. As a general matter, even private fishing rights may be regulated by the state where non-navigable streams, lakes, or ponds are so connected with other waters of the state as to permit the migration of fish. See People v. Truckee Lumber Co., 116 Cal. 397, 48 P. 374 (1897); Bannon v. Logan, 66 Fla. 329, 63 So. 454 (1913); People v. Bridges, 142 Ill. 30, 31 N.E. 115 (1892); People v. Horling, 137 Mich. 406, 100 N.W. 691 (1904); Reid v. Ross, 46 S.W.2d 567 (Mo. 1932); Annot., 15 A.L.R.2d 754 (1951). The imposition of such restrictions is not considered the taking of property without due process of law. Windsor v. State, 103 Md. 611, 64 A. 288 (1906); State v. Theriault, 70 Vt. 617, 41 A. 1030 (1898); State v. Van Vlack, 101 Wash. 503, 172 P. 563 (1918); Annot., 56 A.L.R. 297 (1928). For a suggestion that a complete prohibition or a substantial restriction of private fishing rights might require compensation for taking, see F. MALONEY, S PLAGER & F. BALDWIN, JR., supra note 4, § 42.1(a), at 110.


28. See Donnelly v. United States, 228 U.S. 243 (1913) in which the Supreme Court held that a state may assign its bed title to a riparian owner but the assignment does not defeat the public trust.

29. See infra notes 99–125 and accompanying text.
rights, and are often confused with one another. Wharfing involves the building of docks or piers from the shoreline out into the water to improve the upland owner’s opportunity to make use of the surface. Filling, on the other hand, is just that—putting a permanent fill on the bottom of a waterbody, to convert that portion to dry land and enable the bottom owner to use his property for dry-land purposes.\textsuperscript{30}

The exercise of the private rights of wharfing out and filling may depend on whether the waterbody is classified as public or private\textsuperscript{31} and, if the latter, on whether the jurisdiction follows the common law or common use theory for the use of the surface.\textsuperscript{32} Wharfing out on public waters is permitted so long as it is in aid of navigation and does not unreasonably restrict the public’s use of the surface for other purposes.\textsuperscript{33} Filling on public waters is almost always prohibited,\textsuperscript{34} even where the bottom is in private ownership.\textsuperscript{35}

Where the waterbody is private, bottom ownership may be a prerequisite to both wharfing out and filling.\textsuperscript{36} In most cases, however, the entire bottom will not be in sole ownership. Then the question arises as to the

\textsuperscript{30} For a discussion of the distinctions between filling and wharfing, see generally F. MALONEY, S. PLAGER & F. BALDWIN, JR., supra note 4, §44.3, at 122.

\textsuperscript{31} See generally discussion infra pp. 9–18.

\textsuperscript{32} See infra notes 88–93 and accompanying text.

\textsuperscript{33} See New York, N.H. & H.R.R. v. Long, 72 Conn. 10, 43 A. 559 (1899) (Thames River); Bainbridge v. Sherlock, 29 Ind. 364 (1868) (Ohio River); Delaplaine v. Chicago & N.W. Ry., 42 Wis. 214 (1877). See also Dutton v. Strong, 66 U.S. (1 Black) 23 (1861) (Lake Michigan); Illinois v. Illinois Cent. R.R., 33 F. 730 (C.C.N.D. Ill. 1888), aff’d, 146 U.S. 387 (1892); Annot., 40 L.R.A. 735 (1905). See generally Plager, Interference with the Public Right of Navigation and the Riparian Owners’ Claim of Privilege, 33 MO. L. REV. 608 (1968). A few courts have refused to allow the riparian owner to exercise the right to erect a wharf upon land under navigable water, based on the common law notion that any construction below high-water mark, without license, is an encroachment which the sovereign may demolish, seize, or rent at pleasure. See, e.g., Berger v. Ohlson, 120 F.2d 56 (9th Cir. 1941). See also People ex rel. Teschemacher v. Davidson, 30 Cal. 379 (1866); Martin v. O’Brien, 34 Miss. 21 (1857); Dana v. Jackson St. Wharf Co., 31 Cal. 118 (1866); Revell v. People, 177 Ill. 468, 52 N.E. 1052 (1898); Bowlby v. Shively, 22 Ore. 410, 30 P. 154 (1892), aff’d, 152 U.S. 1 (1894).

\textsuperscript{34} See F. MALONEY, S. PLAGER & F. BALDWIN, JR., supra note 4, §44.3, at 122–23. Presumably, the rationale of this prohibition is that such filling is virtually never “in aid of navigation” and normally interferes with the public right of navigation.

\textsuperscript{35} See Wilbour v. Gallagher, 77 Wash. 2d 306, 462 P.2d 232 (1969), cert. denied, 400 U.S. 878 (1970). This case is discussed in Corker, Thou Shalt Not Fill Public Waters Without Public Permission—Washington’s Lake Chelan Decision, 45 WASH. L. REV. 651 (1970) (decision hailed as a significant victory for the public, applicable to all waters of the state, with broad implications for all privately owned shore lands and tide lands). But see Rauscher, The Lake Chelan Case—Another View, 45 WASH. L. REV. 523 (1970) (arguing that Wilbour should be narrowly restricted to its facts, as an unusual case in which the customary fee title to intermittently overflowed land was not acquired by the overflow, hence not applicable to property overflowed by naturally fluctuating water and not affecting the property rights of owners of such lands and their rights to fill). See generally text infra accompanying notes 92–106 for a discussion of private bottom ownership and public rights.

\textsuperscript{36} Johnson & Morry, Filling and Building on Small Lakes—Time for Judicial and Legislative Controls, 45 WASH. L. REV. 27, 60 (1970).
impact of the wharfing or filling on the rights of other bottom owners or contiguous riparians. If the common law rule is followed, unrestricted wharfing or filling probably would be allowed. Because a bottom owner has the right to exclude other persons from using the surface above his property, wharfing or filling by the owner in that area would not restrict the rights of others. Where the common use doctrine is in effect, the proposed wharfing or filling should be subjected to the ordinary tests of reasonableness to avoid unreasonable interference with the rights of others. Filling, however, has suffered a harsher fate than wharfing out under these circumstances.

Maintenance of Natural Water Levels

Numerous cases have recognized the right of a private riparian to have lake waters maintained at their ordinary level, provided such maintenance does not prevent other riparians from making a reasonable consumptive use of the water. This is true of both private and public waters. The point at which a competing use becomes unreasonable is critical in any given case. In some states the riparian's right to historic water levels is protected by statute.

A public right to water level maintenance arises where the public has acquired rights in a particular waterbody and private landowners modify the water level in a way which would interfere with the public's surface.

37. In those cases in which lands of other riparians are flooded as a result of filling, the injured party may be allowed damages for trespass. Cf. Wheatley v. City of Fairfield, 221 Iowa 66, 264 N.W. 906 (1936) (damages recovered on the basis of trespass as a result of flooding of lands by waters backed up by a dam).
38. See generally RESTATEMENT (SECOND) OF TORTS § 850A (1977) (describing the standards to be applied in determining the reasonableness of a use of water).
40. See Taylor v. Tampa Coal Co., 46 So. 2d 392 ( Fla. 1950); Watuppa Reservoir Co. v. Fall River, 154 Mass. 305, 28 N.E. 257 (1891); Kennedy v. Niles Water Supply Co., 173 Mich. 474, 139 N.W. 241 (1913); Schaeffer v. Marthaler, 34 Minn. 487, 26 N.W. 726 (1886); Martha Lake Water Co. No. 1 v. Nelson, 152 Wash. 53, 277 P. 382 (1929). But cf. Harris v. Brooks, 225 Ark. 436, 283 S.W.2d 129 (1955) (defendant's withdrawal enjoined as unreasonable interference with plaintiff's uses but the court, in dictum, declared that a riparian was not entitled to the natural lake level as a matter of right; rather, each case must be decided on its own facts); State v. Sunapee Dam Co., 70 N.H. 458, 50 A. 108 (1900) (state can authorize lowering of level of lake without providing compensation to riparian owners).
42. See Martha Lake Water Co. No. 1 v. Nelson, 152 Wash. 53, 277 P. 382 (1929).
use rights. The public's remedies are sometimes statutory, but common law approaches have been employed as well.

The Right to View

The classic writings on riparian rights did not recognize a right to view. Occasionally, such a right has been at issue, but only a very few courts have recognized it. Even in these cases, the outcome may be explained by the existence of traditional riparian rights.

The public right of view has been recognized in at least one jurisdiction. It is interesting to note that the Restatement (Second) of Torts, in a comment on social value as affecting the reasonableness of a riparian use of water, uses an illustration where the loss of public view is taken into consideration, presumably as an indication of social harm.

The Variables and Their Impact on Surface Rights

Navigability

The most important determination affecting the rights of private owners and the public to use the surface of a waterbody is whether that waterbody is navigable or non-navigable. A finding of navigability establishes public rights of use, both directly through judicial and statutory proclamations.
and indirectly through its effect on bottom ownership. A finding of non-
navigability, on the other hand, may reduce or prohibit public use, and
leave the private owners to apportion the surface rights among themselves.
Both federal and state tests of navigability play a part in this equation.\(^\text{52}\)

**The Federal Test.** There are several federal tests of navigability
employed, for a variety of purposes.\(^\text{53}\) Only two are of concern here: the
federal tests of navigability for commerce clause purposes, and for
determining title to the bottom of a waterbody.

For purposes of coverage by the commerce clause, the federal navig-
ability test examines a waterbody’s present capability for use as an artery
of waterborne commerce.\(^\text{54}\) Although the commerce need not occur in
interstate waters,\(^\text{55}\) the waterway must serve as a link in interstate or
foreign commerce.\(^\text{56}\) Commerce in the sense of commercial or economic
gain is not required; pleasure cruising by private citizens will suffice.\(^\text{57}\)
Navigability for commerce clause purposes is not limited to waters in
their natural condition, but rather has been extended to those waters which
can be made navigable through “reasonable” improvements.\(^\text{58}\) Authority
of the federal government over waters navigable by this test is virtually
absolute. The result of a finding of navigability for our purposes is that
the federal government may extend the right to use the surface to the

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\(^{52}\) See generally Leighty, *supra* note 51.

\(^{53}\) For a discussion of the various concepts of navigability see Frank, *Forever Free: Navigability, Inland Waterways, and the Expanding Public Interest*, 16 U.C.D. L. REV. 579, 582-91 (1982); Johnson & Austin, *Recreational Rights and Titles to Beds on Western Lakes and Streams*, 7 NAT.
RES. J 1, 8-33 (1967); Leighty, *supra* note 51, at 391-410.


\(^{55}\) See the *Daniel Ball*, 77 U.S. (10 Wall.) 557 (1870). Grand River, involved in that case, is entirely within the State of Michigan.

\(^{56}\) The *Montello*, 78 U.S. (11 Wall.) 411, 415 (1870); Sierra Pacific Power Co. v. Federal Energy Regulatory Comm’n, 681 F.2d 1134, 1138 (9th Cir. 1983).

\(^{57}\) United States v. Appalachian Elec. Power Co., 311 U.S. 377 (1940). See also 33 U.S.C. § 541 (1982) “As used in this section, the term ‘commerce’ shall include the use of waterways by seasonal passenger craft, yachts, house boats, fishing boats, motor boats, and other similar water craft, whether or not operated for hire.” Id.

public, and may restrict inconsistent private rights without compensation.59

The federal test of navigability for title purposes differs from the commerce clause test in only three important respects. First, title is decided with reference to the date a state is admitted to the union; the navigable potential of the waterway is tested as of that point in time.60 Second, the possibility of artificial improvements is not considered in applying the title test.61 Finally, waters navigable for title purposes need not provide a link in interstate commerce.62

Title to the bottoms of waters navigable by the federal test went to the individual states at the time of statehood,63 except where the federal government had previously alienated them to private parties.64 Non-navigable bottoms were held by the federal government,65 subject to alienation by patent or otherwise.66 Some bottom lands, once in state ownership by virtue of being navigable for title purposes, were subsequently transferred to private ownership by the individual states.67

The ability of a state to dispose of state-owned bottomlands is circum-


64. Federal grants to riparians on waters navigable under the federal test will not convey title to the beds absent a clear and unequivocal intent on the part of the United States to do so. United States v. Oregon, 295 U.S. 1 (1935); United States v. Holt State Bank, 270 U.S. 49 (1926).


66. E.g., Oklahoma v. Texas, 258 U.S. 574 (1922).

scribed by what has come to be known as the public trust doctrine. Historically, the courts have used this doctrine to protect the public interest in certain natural resources considered unique, or especially valuable and irreplaceable. Although the scope of the doctrine continues to evolve, it is usually applied to preserve public interests in the beds and foreshores of navigable waters so that public rights of navigation, fishing, and commerce overlying those lands will be preserved. Application of the public trust doctrine has varied from state to state, and over time. In recent years, the doctrine has been viewed as a general theory of public environmental rights. In the context of this article, it establishes the principle that transferees from a state of bottomlands underlying navigable waters take qualified title, subject to a varying range of overriding public rights to use the surface.

To the extent that bottom ownership affects surface rights, the characterization of a waterbody as navigable or non-navigable, for title purposes, indirectly impacts surface uses.

State Tests. State navigability tests have been used to establish both title to the bottom and use of the surface. Prior to 1926 and the decision of the U.S. Supreme Court in United States v. Holt State Bank, it was


70. In New Jersey, for example, it has been used to extend state ownership of the beds under navigable waters and to limit the common law custom of wharfing. O'Neil v. State Highway Dep't, 50 N.J. 307, 235 A.2d 1 (1967). In Florida, by way of contrast, the doctrine was at one time used to allow submerged lands to be filled. Pembroke v. Peninsular Terminal Co., 108 Fla. 46, 146 So. 249 (1933). More recently, it has been asserted to protect public rights in trust lands. See F. MALONEY, S. PLAGER & F. BALDWIN, JR., supra note 4, § 122.2, at 355–57. California has given the public trust doctrine an expansive reading to protect such public uses as the right to hunt, bathe, or swim, and the right to preserve the tidelands in their natural state as ecological units for scientific study. See Marks v. Whitney, 6 Cal. 3d 251, 98 Cal. Rptr. 790, 491 P.2d 374 (1971). See generally Dunning, The Significance of California's Public Trust Easement for California's Water Rights Law, 14 U.C.D. L. REV. 257 (1980).


73. 270 U.S. 49 (1926).
widely believed that a state rather than the federal test of navigability was the appropriate standard for determining title to the bottom of a waterbody.\textsuperscript{74} This is no longer true.\textsuperscript{75} The impact of a finding of state navigability today lies in the creation of surface rights in the public. Although some states have merely adopted the federal navigability standards,\textsuperscript{76} many have created standards broader than those of the federal test.\textsuperscript{77} The result is that waters non-navigable under the federal test may indeed be considered navigable by a particular state. Illustrative is the test which declares a waterbody navigable if it is capable of floating a saw log.\textsuperscript{78}

In virtually all states, a determination that a waterbody is navigable under the state test opens up the use of the surface to members of the public who have legal access, subject to appropriate state regulations.\textsuperscript{79} The presence of public rights, in turn, may restrict private rights of riparians when the private rights conflict with those of the public.\textsuperscript{80} In some states, moreover, a finding of navigability would give to private


\textsuperscript{79} Once the federal interest in disposing of the public domain is protected by the application of federal title rules, it is widely assumed that the states are free to allocate the right to use water surfaces between private and public rights as the state chooses. See \textit{Southern Idaho Fish \\& Game Ass’n v. Picabo Livestock, Inc.}, 96 Idaho 360, 528 P.2d 1295 (1974). This also applies to those waters found to be nonnavigable under the federal title test, where bottom ownership is thus in the federal government or its grantee. See \textit{supra} notes 65–66 and accompanying text.

\textsuperscript{80} See text accompanying notes 20–23 \textit{supra}. 
upland owners, in their capacity as members of the public, rights of surface use they would not enjoy were the waterbody non-navigable.\textsuperscript{81}

**Bottom Ownership**

Bottom ownership may play an important part in establishing, and limiting, surface rights of both private landowners and the public. Such ownership is determined, as in the case of "riparian" upland ownership, by examining the calls in the deed to the party asserting the rights of an owner.\textsuperscript{82} Much of the potential conflict between upland owners and bottom owners has been dissipated by the common law presumption that ownership of the bottom accompanies ownership of the adjacent upland.\textsuperscript{83} In the case of streams, this presumption conveys title to the center, or thread, of the stream.\textsuperscript{84} With lakes, a similar presumption applies,\textsuperscript{85} although determining the actual area of bottom ownership is often a matter of some complexity.\textsuperscript{86} The presumption applies only to waterbodies non-navigable under the federal title test because the beds of navigable waters belong to the state and can be aliened only by specific grant.\textsuperscript{87}

Once bottom ownership is established, its impact on surface rights in private waters depends on which of two rules a state follows. The common law rule provides that surface rights may only be exercised on that area of the surface overlying one's bottomland.\textsuperscript{88} The contrasting common use

\textsuperscript{81} This would occur in states following the common law approach to surface use. See infra note 88 and accompanying text.

\textsuperscript{82} See Annot., 74 A.L.R. 597 (1931) (cases on the determination of boundaries of riparian lands by construction of the deed).

\textsuperscript{83} The rule has been called one of "almost universal application." Stone, Public Rights in Water Uses and Private Rights in Land Adjacent to Water, in 1 WATER S AND WATER RIGHTS 177, 261 n.87 (R. Clark ed. 1967). For cases, see id. See generally Bade, Title, Points and Lines in Lakes and Streams, 24 MINN. L. REV. 305 (1940); Annot., 25 A.L.R. 757 (1923); Annot., 112 A.L.R. 118 (1938).


\textsuperscript{86} See 1 R. & C. PATTON, TITLES §§ 128, 137 (2d ed. 1957).

\textsuperscript{87} See, e.g., Hardin v. Jordan, 140 U.S. 371, 391 (1891) (dictum).

\textsuperscript{88} See Leonard v. Pearce, 348 Ill. 518, 181 N.E. 399 (1932); Sanders v. De Rose, 207 Ind. 90, 191 N.E. 331 (1934); Tyler v. Cedar Island Club, Inc., 143 Md. 214, 122 A. 38 (1923); Baker v. Normano Ch Ass'n, 25 N.J. 407, 136 A.2d 645 (1957); Commonwealth Water Co. v. Brunner, 175 A.D. 153, 161 N.Y.S. 794 (1916); Lembeck v. Nye, 47 Ohio St. 336, 24 N.E. 686 (1890); Loughran v. Matylewicz, 367 Pa. 593, 81 A.2d 879 (1951). See also City of Birmingham v. Lake, 243 Ala. 367, 10 So.2d 24 (1942) (alternate holding); Great Hill Lake, Inc. v. Caswell, 126 Conn. 364, 11 A.2d 396 (1940) (by implication); Akron Canal & Hydraulic Co. v. Fontaine, 72 Ohio App. 93, 50 N.E.2d 897 (1943) (applying the rule to an artificial nonnavigable lake). Cf. Hartmann v. Tresise, 36 Colo. 146, 84 Pac. 685 (1905) (fisherman walking on privately owned bed). Rights to use the waters over the private bed in "common law" states can be acquired by deed or contract.
rule, which has gained ground in recent years, allows mutual use of the surface by all qualified riparians so long as the uses of others are not unreasonably interfered with.\textsuperscript{8} While the ancient property law concepts behind the common law rule are readily apparent, the common use approach has several advantages.\textsuperscript{90} For one thing, common use accommodates the exercise of surface rights by upland owners in those states where bottom ownership is not a prerequisite to the assertion of riparian rights.\textsuperscript{91} The common use approach also maximizes surface use, and minimizes the difficulties of identifying property lines covered by water.

In a majority of states, bottom ownership is not an additional requirement for private surface rights to accrue to a landowner who owns riparian uplands.\textsuperscript{92} This is true for both non-navigable waterbodies and for navigable waters, where ownership would normally be in the public. Only in those states still employing the common law approach to surface use does private bottom ownership have continuing significance for surface rights.\textsuperscript{93}

Public ownership of the bed of a waterbody, however, does have a significant effect on the private rights of upland owners. In addition to the danger that those rights, when interfered with by the public, may be characterized as merely rights which are shared in common with the

\footnotesize{\textsuperscript{See, e.g., Sheahan v. Upper Greenwood Lake Property Owners' Ass'n, 36 N.J. Super. 133, 115 A.2d 129 (1955) (deed covenant).}

\textsuperscript{89. See Duval v. Thomas, 114 So. 2d 791 (Fla. 1959); Beach v. Hayner, 207 Mich. 93, 173 N.W. 487 (1919); Johnson v. Seifert, 257 Minn. 159, 100 N.W.2d 689 (1960); Elder v. Delcour, 364 Mo. 835, 269 S.W.2d 17 (1954); Snively v. Jabber, 48 Wash. 2d 815, 296 P.2d 1015 (1956). See also Harris v. Brooks, 225 Ark. 436, 283 S.W.2d 129 (1955) (by implication); State Game and Fish Comm'n v. Louis Fritz Co., 187 Miss. 559, 193 So. 9 (1940) (affirmed an injunction against user by reason of equal division as to statutory authority but a majority of the court voted for a right of common use); Monroe v. State, 111 Utah 1, 175 P.2d 759 (1946) (by implication). Virginia allows common use when the riparians' title to the bed derives from their ownership of the shore. Improved Realty Corp. v. Sowers, 193 Va. 317, 78 S.E.2d 588 (1953), but not when the bed is specifically described in the riparians' deeds on the ground that in the latter case the boundaries are distinguishable. Wickouski v. Swift, 203 Va. 467, 124 S.E.2d 892 (1952). Texas follows a similar rule. Compare Taylor Fishing Club v. Hammert, 88 S.W.2d 127 (Tex. Civ. App. 1935), with Diversion Lake Club v. Heath, 126 Tex. 129, 86 S.W.2d 441 (1935).

\textsuperscript{90. For a general discussion of the rule of common use see Johnson & Austin, supra note 53, at 41-52; Note, Extent of Private Rights in Nonnavigable Lakes, 5 U. FLA. L. REV. 166, 176-78 (1952); Comment, Water Recreation—Public Use of "Private" Waters, 52 CALIF. L. REV. 171 (1964).

\textsuperscript{91. See, e.g., Johnson v. Seifert, 257 Minn. 159, 100 N.W.2d 689 (1960).

\textsuperscript{92. See, e.g., Indianapolis Water Co. v. American Strawboard Co., 53 F. 970, 974 (C.C.D. Ind. 1893); Johnson v. Seifert, 257 Minn. 159, 100 N.W.2d 689, 694 (1960); Bradley v. County of Jackson, 347 S.W.2d 683, 688 (Mo. 1961); Bach v. Sarich, 74 Wash. 2d 575, 579, 445 P.2d 648, 651 (1968).

\textsuperscript{93. It has been suggested that, even in those jurisdictions which follow the common use rule allowing mutual use of the surface by all qualified riparians, if the bed of the waterbody is entirely owned by one individual, he can use the waterbody as he would any other piece of realty. Thus, private bottom ownership may still have an impact on surface rights in common use jurisdictions in certain cases. See F. MALONEY, S. PLAGER & F. BALDWIN, JR., supra note 4, § 23.1, at 52.}}
public, the exercise of some private rights may be prohibited as inconsistent with the concurrent rights of the public.\textsuperscript{94} This is true, for instance, of wharfing out where the resulting structure interferes with the public right of navigation derived from public ownership of the bottom.\textsuperscript{95}

Public rights in the surface may arise even where the state does not own the bottom. Ordinarily, private bed ownership would preclude the existence of public rights as such. This is not true, however, where the private owner has acquired title to the bed from the state, which previously held title because the waterbody was navigable under the federal title test. When such bottoms are transferred into private ownership, most courts hold that the transferee takes only qualified title, subject to the overriding surface rights of the public.\textsuperscript{96}

When public surface rights are premised on public ownership of the bottom, it is necessary to determine the source of that ownership. If state ownership was acquired through a determination of navigability for title purposes, public rights to the use of the surface exist in the public at large, exercisable by any member of the public with legal access.\textsuperscript{97} If the waterbody is not navigable for title purposes, the state may nevertheless have acquired title from private owners through purchase, condemnation, or dedication. In those circumstances, members of the public have no surface rights of their own, but may use the surface as licensees of whatever public entity owns the bottom, subject to the same limitations which the law imposes on the licensees of private riparians.\textsuperscript{98}

\textit{Other Approaches to Public Use}

In addition to the historic concepts of navigability and bottom ownership discussed above, courts and legislatures have developed other rationales for making state water resources available to members of the public. Perhaps the oldest of these are the Great Ponds Ordinances.\textsuperscript{99}

\textsuperscript{94} See supra notes 20–23 and accompanying text.
\textsuperscript{96} See supra notes 68–71 and accompanying text.
effective in Massachusetts,\textsuperscript{100} New Hampshire,\textsuperscript{101} and Maine.\textsuperscript{102} The public may use the surface of certain ponds or lakes, originally for “fishing and fowling” and today for a variety of recreational purposes.\textsuperscript{103} The definition of a great pond is not directly related to navigability, and small freshwater lakes are included.\textsuperscript{104} Public access is made available by statute,\textsuperscript{105} although the courts have been careful to protect private lands from damage.\textsuperscript{106}

In other states the legislatures have made waters available for public use without regard to tests of navigability, or determinations of bed ownership. Indiana law declares that “water in any natural stream, natural lake, or other natural body of water” is “a natural resource and public water of the state of Indiana,” subject to regulation for the public welfare.\textsuperscript{107} Minnesota subjects to the control of the state “all public waters and wetlands.”\textsuperscript{108} Public waters are very broadly defined,\textsuperscript{109} and the statute expressly rejects bottom and riparian ownership, and navigability, as the exclusive means of determining the public or non-public character of the water.\textsuperscript{110} Other states have similar statutory provisions.\textsuperscript{111}

Several state constitutions, primarily in the western “appropriation” states, purport to vest ownership of waters in the state itself without regard to whether those waters are navigable.\textsuperscript{112} A typical example, on which public rights have been premised, is the Wyoming Constitution. It declares that “all natural streams, springs, lakes, or other collections of still water, within the natural boundaries of the State, are the property

\textsuperscript{100} MASS. ANN. LAWS ch. 131, § 45 (Michie/Law. Coop. 1981).
\textsuperscript{103} \textit{See} Gratto v. Palangi, 154 Me. 308, 147 A.2d 455 (1958); Barrows v. McDermott, 73 Me. 441 (1881); Slater v. Gunn, 170 Mass. 509, 49 N.E. 1017 (1898); Whitcher v. State, 87 N.H. 405, 181 A. 549 (1935).
\textsuperscript{104} \textit{E.g.}, ME. REV. STAT. ANN. tit. 38, § 392 (Supp. 1983) (natural waterbodies in excess of 20 acres; artificial waterbodies in excess of 30 acres); MASS. ANN. LAWS ch. 91, § 35 (Michie/Law. Coop. 1975) (natural waterbodies of more than 10 acres); N.H. REV. STAT. ANN. § 271:20 (Supp. 1981) (all natural bodies of fresh water of 10 acres or more).
\textsuperscript{106} \textit{See, e.g.}, Slater v. Gunn, 170 Mass. 509, 49 N.E. 1017 (1898).
\textsuperscript{107} IND. CODE ANN. § 13-2-1-2 (Burns 1981).
\textsuperscript{108} MINN. STAT. ANN. § 105.38(1) (West 1984 Supp.).
\textsuperscript{109} Id. § 105.37 (West 1984 Supp.).
\textsuperscript{110} Id.
\textsuperscript{111} \textit{Id.}
\textsuperscript{112} For a listing of these constitutional passages declaring waters in western states to be “public,” \textit{see} Stone, \textit{Public Rights in Water Uses and Private Rights in Land Adjacent to Water}, in 1 WATERS AND WATER RIGHTS 171 at 242–45 (R. Clark ed. 1967). \textit{See also} Johnson & Austin, \textit{supra} note 53, at 33–47.
of the State." In *Day v. Armstrong*, the Wyoming Supreme Court interpreted this provision to allow members of the public to float down non-navigable waters within the state. The bed, admittedly in private ownership, can be used for purposes which are necessary incidents to the use of the surface, although not for such independent uses as wading or walking the stream. Many western state courts have similarly interpreted such state constitutional provisions, although some authority limits the concept of public ownership to situations dealing with rights of withdrawal for consumptive purposes.

To a limited degree, territorial laws enacted by Congress have affected the establishment of public rights, at least where subsequent state constitutional provisions, federal enabling legislation, or court decisions have given continuing effect to these pre-statehood enactments. For the most part, these laws have clarified the availability of navigable waters for public use.

The common law doctrine of dedication is another theory that has been used to provide surface water rights to the public. Dedication requires an intent to devote private property to a public use, and its acceptance by the public. This approach can be used to acquire access for the public to water, navigable or non-navigable, and, more importantly, to allow the public to use the surface of waters that would not otherwise be available for such use. A leading example is *Bartlett v. Stalker Lake Sportsmen's Club*, a 1969 Minnesota case. The owner of riparian property on a small, non-navigable lake and bog granted the public an easement in perpetuity for a road over his land to provide access for public hunting.

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113. WYO. CONST. art. 8, § 1.
115. Id. at 146.
117. See generally Northwest Ordinance of 1787, 1 Stat. 51 (1789). The relevant provision of the Ordinance is found in article IV: "The navigable waters leading into the Mississippi and St. Lawrence, and the carrying places between the same, shall be common highways, and forever free, as well to the inhabitants of the said territory, as to the citizens of the United States, and those of any other States that may be admitted into the confederacy, without any tax, impost, or duty therefor."
118. See, e.g., WIS. CONST. art. 9, § 1.
120. See Sands v. Manistee River Improvement Co., 123 U.S. 288 (1887); Burroughs v. Whitwam, 59 Mich. 279, 283, 26 N.W. 491, 492 (1886). See also Lundberg v. Univ. of Notre Dame, 231 Wis. 187, 282 N.W. 70 (1938) [explanatory memorandum at 285 N.W. 839 (1939)]. Lundberg held the Northwest Ordinance directly operative in Wisconsin, "regardless of the inclusion or exclusion of its terms by the state constitution." 231 Wis. at 192, 282 N.W. at 73.
121. See generally Leighty, supra note 51, at 414-18. In Elder v. Delcour, 364 Mo. 835, 269 S.W.2d 17 (1954), the Missouri Supreme Court relied in part upon a pre-statehood statute to enable members of the public to fish, float, and wade in waters admittedly not navigable under the federal test of navigability for title purposes.
122. 283 Minn. 393, 168 N.W. 2d 356 (1969).
The county cleared an access road and a few members of the public used the lake for hunting each year over a period of ten years. Subsequently, a private hunting club acquired riparian land completely surrounding the lake and brought suit to enjoin alleged trespasses by the public. Treating the acts of the prior owner and the public as an offer and acceptance of dedication, the court held that the public not only had a right of access, but had a right to use the surface of the lake and bog as well.  

Finally, "wild rivers" legislation, enacted by several states, preserves certain watercourses in a free-flowing pristine state for the benefit of the public. Such statutes enlarge public surface uses while restricting the scope of private riparian rights of landowners along these streams.

PRIVATE AND PUBLIC RIGHTS IN THE SURFACE OF ARTIFICIAL WATERS

The foregoing principles by which natural waters are classified as private or public are applicable to situations involving artificial waters.

123. Id. at 399, 168 N.W.2d at 360. See also Flynn v. Beisel, 257 Minn. 531, 102 N.W.2d 284 (1960) (evidence warranted finding that roadway to lake had been established by common-law dedication and public acceptance, and public thereby acquired possession of riparian rights). The public might also be able to acquire rights by operation of the doctrine of implied dedication. See Gion v. City of Santa Cruz, 2 Cal. 3d 29, 465 P.2d 50, 84 Cal. Rptr. 162 (1970) (if public is allowed to use beach for any five-year period as if there were a public right of access, the right of access is "dedicated" to the public). For a discussion and criticism of the doctrine of implied dedication, see Comment, Public or Private Ownership of Beaches: An Alternative to Implied Dedication, 18 UCLA L. REV. 795 (1971). The Indiana statutes contain an interesting concept closely related to the doctrine of dedication. See IND. CODE ANN. § 13-2-11.1-1 (Burns Supp. 1983):

'Public freshwater lake' means a lake that has been used by the public with the acquiescence of a riparian owner; however, it does not include Lake Michigan or any lake lying wholly or in part within the boundaries of a second-class city located in a county having a population of not less than four hundred thousand [400,000] nor more than six hundred fifty thousand [650,000], according to the most recent federal census and it does not include a privately owned body of water used for the purpose of, or created as a result of, surface coal mining.

Id. See generally Waite, Public Rights in Indiana Waters, 37 IND. L.J. 467, 478–79 (1962), which discusses an earlier version of this provision.

124. See, e.g., CAL. PUB. RES. CODE §§ 5093.50–69 (West Supp. 1984); OR. REV. STAT. § 390.805–925 (1983); TENN. CODE ANN. §§ 11-13-101 to 117 (1980 and Supp. 1983). These state laws are based on the Wild and Scenic Rivers Act, Pub. L. No. 90-542, 82 Stat. 906 (1968). The purpose of the act is to assist in preserving environmental values which enhance the use and enjoyment of the river. In addition to designating certain rivers as protected, the act provides the means whereby other rivers may be brought within the protection of its provisions, one of which is through approval of a state-administered river becoming a part of the national system upon request of the Governor. Id. at 910, § 2(a). See generally Rich, Managing Recreational Rivers, 8 AKRON L. REV. 43, 54–55 (1974).

125. In Oregon, for example, landowners within one-quarter mile of "scenic rivers" must give notice of any changes in land use and if the State Department of Transportation determines that the proposed use would be detrimental to the river area, the owner must delay the change for a year, during which time the landowner may negotiate an acceptable plan with the Department, or the Department may exercise the power of eminent domain. If neither of these has taken after the year, the landowner may proceed with his written plan. OR. REV. STAT. § 390.845(4) to (6) (1982).
For purposes of analysis, the circumstances under which artificial water conditions are created can be divided into three categories. In each of these situations, public and private rights to use the surface of artificial, as contrasted with natural, waters are at issue.

The first is where a wholly artificial waterbody is established, unconnected with any previously existing natural body of water. An example is where pumped groundwater is used to fill a lake created by a real estate developer.

A second situation occurs when an existing waterbody is expanded, covering land previously dry, and new "bottomland" is created. Although such an expansion is often the result of dam building, that is not the only way a waterbody can be enlarged. Even where a river or lake is private in its natural condition, the artificial modification may create public water with corresponding rights of members of the public to use the surface.

The third situation arises where two existing waterbodies are connected by an artificial channel. The natural waterbodies may both be private, public, or one public and the other private. Questions then arise regarding the rights of the public and of private riparians to use either or both of the waterbodies, assuming access is available by virtue of the artificial channel.

**Wholly Artificial Waterbodies**

**Private Waters**

A wholly artificial private waterbody can exist in three forms which affect the surface rights associated with it. Either the waterbody is entirely surrounded by land belonging to its developer, abuts neighboring land, or encroaches on neighboring land.

**Entirely Surrounded by Land Belonging to Developer.** In the first of these situations, it is reasonable to restrict the use of the surface to the lake's developer. As there are no other riparian landowners, no competing private rights can be asserted, and the characterization of the waterbody as private precludes the assertion of public rights. The developer will reap the benefits of his own efforts, and surface rights will be available for him to use or assign.

**Abuts Neighboring Land.** The second situation is illustrated by a 1965 Wisconsin case, *Mayer v. Grueber*. Plaintiff Mayer sought an injunction to prevent Grueber from trespassing on the waters of an artificial ditch.

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128. 29 Wis. 2d 168, 138 N.W.2d 197 (1965).
ficial lake, one of two such lakes found on Mayer's land and formed by the seepage of water into gravel excavations. Abutting one of the lakes was the Grueber property. Affirming a trial court holding for the plaintiff, the Wisconsin Supreme Court noted, "in the case of artificial bodies of water, all of the incidents of ownership are vested in the owner of the land. An artificial lake located wholly on the property of a single owner is his to use as he sees fit, provided, of course, that the use is lawful." In order to obtain surface rights, the neighboring land owner would have to acquire them by grant or prescription, neither of which was present in this case. In fact Mrs. Mayer had advised the defendants, prior to their purchase of the property, that the Mayers asserted the rights to exclusive use of the lake. Other courts have reached the same conclusion in these circumstances, relying on the principle that "[a]s a general proposition, it has been held that riparian rights do not ordinarily attach to artificial water bodies or streams . . ."

Encroaches on Neighboring Land. Mayer v. Grueber may suggest that the result might be different if the person asserting riparian rights owned a portion of the bottom of the artificial lake, the third situation. One way of allocating the riparian rights in such a situation would be to allow each landowner to use only the surface of the artificial waterbody overlying his particular land. Mayer at least implies such a result. Except for providing the developer the maximum benefit for his efforts, this approach is undesirable and runs counter to the current trend in the riparian law of natural waters. The availability of surface use to riparians is

129. The boundary of the Grueber property was described in their deed as "along the easterly bank." Id. at 175, 138 N.W.2d at 203.
130. Id. at 176, 138 N.W.2d at 204.
131. Id. at 177-78, 138 N.W.2d at 204-05.
132. Id. at 172, 138 N.W.2d at 200.
134. 29 Wis. 2d at 176, 138 N.W.2d at 203-04. It should be noted that, in Wisconsin, riparian rights vary with the nature of the body of water. With respect to the ownership of the bed of a stream, a riparian owner has a qualified title (subject to the paramount interest of the state) to the thread of the stream, whereas the owner of land abutting a natural lake or pond owns to the water line only, since title to the submerged lands beneath a permanent body of natural water is held in trust for the people by the state. Illinois Steel Co. v. Bilot, 109 Wis. 418, 84 N.W. 835, 856-57 (1901); Ne-peen-ak Club v. Wilson, 96 Wis. 290, 71 N.W. 661 (1897). For a more recent discussion, see Muench v. Pub. Serv. Comm'n, 261 Wis. 492, 53 N.W.2d 514, 517 (1952). The court in Grueber applied this distinction to the artificial lake involved in that case. 29 Wis. 2d at 175, 138 N.W.2d at 203.
135. See supra notes 88-91 and accompanying text.
reduced beyond what is required by the doctrine of reasonableness.\textsuperscript{136} Moreover, unless fences are built across the water, the adjacent landowner is in doubt as to the physical extent of his surface rights.

\textit{Public Waters}

Public rights in wholly artificial waters have received little attention from the courts, presumably because most such waterbodies are too small to qualify as public. One recent case, however, has raised the possibility that such rights might exist under appropriate circumstances. In \textit{Silver Blue Lake Apts. v. Silver Blue Lake Home Owners Association},\textsuperscript{137} plaintiff and defendant each owned portions of the bottom of a small artificial lake, deeded to them by a common grantor. At issue was the right of defendant's apartment tenants to use the surface of the lake, despite the presence in the deed to the plaintiffs of a restrictive clause limiting such use to members of their homeowner's association. The Florida Supreme Court held that the defendants were bound by the terms of the restrictive use clause.\textsuperscript{138} Chief Justice Ervin, in a dissenting opinion, speculated that the size (80 acres), aquatic qualities, and previous recreational use of Silver Blue Lake might qualify it as navigable/public.\textsuperscript{139} He pointed out that if natural waters were so characterized, the public would be provided "the right to free and reasonable use of its waters, including swimming and bathing, for recreational as well as commercial purposes,"\textsuperscript{140} assuming the availability of lawful access.\textsuperscript{141} He noted that "there are certain policy conditions which, if applicable, strongly favor an exclusive, non-public use of artificially created waterbodies, the characteristics of which otherwise would render them navigable."\textsuperscript{142} Further, the Chief Justice asserted that public rights in the artificial waterway would not be available where an underlying landowner creates artificial water "pursuant to a plan or design to exclusively limit the benefits of the project to a recognized non-public class or group"\textsuperscript{143} in the absence of a subsequent abandonment of the plan or the "considerable participation of the general public."\textsuperscript{144} Elaborating, however, on how such rights might arise, he continued:

Where, for example, there is acquiescence in the use of the waterbody by persons not members of the designated exclusive group, principles

\textsuperscript{136} See RESTATEMENT (SECOND) OF TORTS § 850A (1977).
\textsuperscript{137} 245 So. 2d 609 (Fla. 1971).
\textsuperscript{138} \textit{Id.} at 612.
\textsuperscript{139} \textit{Id.} at 615. The trial court found Silver Blue Lake to be nonnavigable.
\textsuperscript{140} \textit{Id.}
\textsuperscript{141} \textit{Id.} at 616.
\textsuperscript{142} \textit{Id.} at 617.
\textsuperscript{143} \textit{Id.}
\textsuperscript{144} \textit{Id.}
of dedication or abandonment may operate to create public rights therein. Also, for example, where an artificial waterbody was not specifically developed originally pursuant to a given plan or design to exclusively limit the public use thereof and where, as suggested by certain evidence in the instant case, the scheme for limiting the use of the waterbody was advanced by developers subsequent to the actual creation of the man-made lake and subsequent to its use by members of the public for recreation, there may be a weakening of those policy considerations which favor private ownership of the waterbody to the extent that recognition of public rights therein may be warranted by virtue of countervailing considerations, including the anticipated increased pressure in this state for the availability of more water sources for public recreational purposes.\textsuperscript{145}

These standards for determining when a wholly artificial, yet navigable, waterbody is available for public use raise several questions. First, the quoted material seems to suggest that in order to be treated as private, the artificial waterbody must not only be developed pursuant to "a given plan or design to exclusively limit the public use thereof . . . ,"\textsuperscript{146} but must also be so developed "originally."\textsuperscript{147} Whether this means the "privacy" plan must be in existence at the start of construction before the water is in place, or before there is any pattern of public use, is unclear.\textsuperscript{148} In \textit{Silver Blue Lake Apts.}, the evidence apparently suggested that the developers failed to have a plan that was timely by any of these standards.\textsuperscript{149}

Furthermore, Chief Justice Ervin did not discuss what the form or content of the development plan might be, except that it "exclusively limit the benefits of the project to a recognized non-public class or group."\textsuperscript{150} The presumed purposes of requiring such a plan would be to insure that the developers did not intend to benefit the public, and to give the public notice of this fact. The latter goal could be satisfied by posting the premises and other efforts to prevent public use—efforts which should be continued to avoid the risk of abandonment or dedication. Proof of the developers' intent, in the absence of a statute requiring recording of an evidentiary

\begin{footnotes}
\footnote{145. Id. at 618 (Footnotes omitted).}
\footnote{146. Id.}
\footnote{147. Id.}
\footnote{148. If the plan must be in existence before the water is in place, the test will not be helpful in situations where a natural body of water overflows to create artificial conditions, since the developer, in many situations, would not be planning for such an overflow. See, e.g., Bohn v. Albertson, 107 Cal. App. 2d 738, 238 P.2d 128 (1951) (San Joaquin River broke through a levee and flooded adjacent land).}
\footnote{149. According to Chief Justice Ervin, the evidence suggested that "the scheme for exclusively limiting the use of the waterbody was advanced by developers subsequent to the actual creation of the man-made lake and subsequent to its use by members of the public for recreation. . . ." 245 So. 2d at 618 (Fla. 1971).}
\footnote{150. Id. at 617.}
\end{footnotes}
instrument, is less easily established. At the very least, developers should create a paper record in the event members of the public subsequently assert rights to use the artificial waterbody.

A third problem with the Ervin standards is that they fail to provide a desirable level of certainty in allocating surface use rights between private parties and the public. Recognition that, on certain occasions, the policy favoring private ownership may be overcome by countervailing public considerations hardly provides the concrete standards necessary to inform both the developers and the public how rights to the surface use of the artificial waterbody will be allocated.

Finally, one might ask whether the dissent in Silver Blue Lake Apts. merely restates the principles of abandonment and dedication, adding nothing new to the analysis of public rights in artificial waters. It would seem not. In cases of abandonment and dedication, the property right belongs to the private owner until he forms the necessary state of mind for abandonment or takes steps to dedicate his property to the public. In contrast, Chief Justice Ervin takes the point of view that a privately developed, artificial, navigable waterbody will inure to the benefit of the public unless the developer takes active measures to prevent this result.

Artificial Expansion of Existing Natural Waterbodies

In contrast with the few cases dealing with wholly artificial waterbodies, many have addressed the expansion of a natural waterbody by artificial means. The allocation of surface rights in the resulting partially artificial waterbody appears to depend, in part, on the characterization—as private or public—of the water in its natural state. Where private riparian rights are asserted to the surface of the expanded waterbody, the relationship of the old and new water levels to the land of the claimant is an additional consideration. Whether the waterbody was expanded by a dam, or otherwise, is apparently irrelevant.

Before turning to an analysis of these problems, however, a related concern must be examined: is there a right to have artificially created water levels maintained?

Maintenance of Artificially Established Water Levels

The assertion of a right to the continuation of artificially created water

151. "An essential element of abandonment is the intention to abandon and such intention must be shown by clear and satisfactory evidence. Abandonment may be shown by circumstances but the circumstances must disclose some definite act showing intention to abandon." City of Anson v. Amett, 250 S.W.2d 450, 454 (Tex. Civ. App. 1952); See generally Clark, The California Doctrine: Appropriative and Riparian Rights to Surface Water, in 5 WATERS AND WATER RIGHTS 333-335 (R. Clark ed. 1972 & Supp. 1978).

152. See supra notes 122 and 123 and accompanying text.

levels, whether derived from the common law\textsuperscript{154} or from statute,\textsuperscript{155} raises two issues, both of which can be illustrated by a commonly encountered fact situation. A dam builder creates an artificial waterbody by enlarging an existing natural lake or stream behind the dam. This floods lands owned by others, making them riparian to the artificial water. The flooding is permitted to continue by virtue of a flowage easement, acquired by grant or condemnation, or by prescription where the upland owner acquiesces for the required period of time. Whatever the source of the easement, it is not unusual for the riparians to come to rely on the artificial water level and to make improvements to their properties based on this reliance. Subsequently, the dam owners remove the dam or otherwise lower the water level.

The first issue is whether riparian owners can insist on the maintenance of the artificial water level, either by asserting a riparian right to have the level maintained, or by relying on principles of reciprocal easements or equitable estoppel. A second issue is whether there are other riparian rights, such as access and navigation, which have accrued to these owners by virtue of their ownership of lands contiguous to artificial waters. If so, can a claim to the continuation of the artificial water levels be made indirectly, by asserting that lowering these water levels would unreasonably interfere with these other riparian rights?

A surprisingly large number of cases have addressed the first of these issues, with sharply contrasting results.\textsuperscript{156} In perhaps the best-known case sustaining a private right to the maintenance of artificial water levels, \textit{Kray v. Muggli},\textsuperscript{157} the Minnesota Supreme Court held that where a dam had been in place for over 40 years, the dam owner would be prevented from taking overt acts to lower the level of the water because: (1) the owners of lakefront property had erected cabins and maintained them for greater than the prescriptive period and had therefore acquired rights in the nature of a reciprocal negative easement in the continuation of the artificial water levels;\textsuperscript{158} (2) the dam must be taken as permanent and, since the dam existed for so long a period of time, "the artificial conditions

\textsuperscript{154} See, e.g., Greisinger v. Klinhardt, 321 Mo. 186, 9 S.W.2d 978 (1928) (court relied on implied easement theory in refusing to allow defendant to drain an artificial lake); Cloyes v. Middlebury Electric Co., 80 Vt. 109, 66 A. 1039 (1907) (artificial condition categorized as "natural" after a sufficient period of time, and right to return to earlier condition no longer existed).

\textsuperscript{155} Several states, including Florida, Maine, Minnesota, New Jersey, and Wisconsin, have addressed the problem of maintaining artificial water levels by passing statutes controlling the maintenance of dams. For a discussion of these statutes and a close analysis of the Maine legislation in particular, see Waite, Nineteenth Century Dams and Twentieth Century Problems: Commentary on a Statutory Solution, 28 ME. L. REV. 419 (1976).

\textsuperscript{156} See generally Evans, supra note 1.

\textsuperscript{157} 84 Minn. 90, 86 N.W. 882 (1901).

\textsuperscript{158} Id. at 100, 86 N.W. at 886.
created thereby must be deemed to have become the natural conditions;"\(^ {159} \)
and (3) the dam owners "are estopped on principles of equity from restoring the waters to their natural channel or state."\(^ {160} \) Although there is some support in other jurisdictions for the Kray result,\(^ {161} \) many courts have found no rights to the maintenance of artificial water levels.\(^ {162} \) The reasoning in Kray seems unconvincing, and the "artificial-becomes-natural" test is difficult to apply. As one court commented in a 1966 case holding that no right to water level maintenance existed under circumstances similar to those in Kray, "The very fact that a manmade dam is obviously present, however, is sufficient to charge them with notice that the water level is artificial as distinguished from natural and that its level may be lowered or returned to the natural state at any time . . . ."\(^ {163} \) Surprisingly, none of the many cases dealing with this fact situation treats the right, if any, to the maintenance of artificial water levels as one of the bundle of riparian rights although the right to have natural water levels maintained has been frequently recognized.\(^ {164} \)

The second issue, that of requiring the maintenance of artificial water levels in order to protect such other riparian rights as access and navigation, apparently has not been discussed by the courts. The validity of such an approach would depend, of course, on the extent to which private and public riparian rights are recognized in artificial waters created out of an existing water body.

**Expansion of Public Waters**

Many judicial decisions have held that when public waters are artificially expanded, members of the public can exercise whatever rights they had in the natural waterbody.\(^ {165} \) In *Bohn v. Albertson*,\(^ {166} \) for example,

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159. *Id.* at 98, 86 N.W. at 885. *See also* Adams v. Manning, 48 Conn. 477 (1881).

160. 84 Minn. at 96, 86 N.W. at 884.


plaintiffs were lessees of land along the navigable San Joaquin River in California, separated from the river by a levee. Prior to 1938 the land was used for farming. In that year the levee broke and the tract became covered with water. Between 1938 and 1947 the land remained under water, and the public used the newly formed waterbody for fishing. In 1947 the plaintiffs obtained a 25-year lease of the land in order to develop the waterbody for aquatic recreation. After unsuccessfully attempting to exclude the defendant members of the public from entering the tract of land and fishing, the plaintiffs sought injunctive relief. Reversing a trial court judgment for plaintiffs, the California District Court of Appeals held that the owners retain title to the land and the land may be reclaimed. Until such reclamation, however, the public retains the right to fish because "by the sudden flooding of the tract by the San Joaquin River, the rights of the public in the river are transferred to the waters of the tract."  

A virtually identical holding in Texas, involving navigable water expanded by a dam, was explained on the ground that the water is still public water, even though it now covers private land.

This principle has been carried to unusual lengths. In Wilbour v. Gallagher, a 1969 Washington case, both defendant and plaintiff owned property along the margin of navigable Lake Chelan, which had been artificially raised by a dam. Because of fluctuating storage for power generation purposes, the lake level varied, and the properties were submerged for only a portion of the year. The defendant filled his land above the artificial high water mark in order to use it year-round. Plaintiff, whose land bordered defendant’s on the upland side, brought a class action suit for an injunction against the fill, alleging impairment of the public’s right to navigate navigable waters. The Washington Supreme Court held that the fill would have to be removed because the public has a right to use the surface of the water even though the defendant would have the right to keep trespassers off his land when it was underwater. The court noted that where the waters of a lake naturally fluctuate, the public has the right to use the water above periodically submerged land. It reasoned that artificial fluctuations should be given the same

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167. Id. at 757, 238 P.2d at 140-41. The court noted that the public must reach the waters without trespassing on private land. Id. at 752, 238 P.2d at 137.


170. Id. at 316, 462 P.2d at 239.
treatment as natural fluctuations, and concluded that "the public has the right to go where the navigable waters go, even though the navigable waters lie over privately owned lands."  

Although some courts have limited this extension of public rights, the principles relied on in Bohn and Wilbour appear sound, and the outcomes justified. Despite an artificial waterway being attributable to private expenditures, the benefits derive from the use of the original waters. When these waters were available for public use in their natural condition, it is reasonable for the developer to be burdened to the extent that public use of the waters in their expanded condition is permitted as well. Moreover, there are practical considerations. As several courts have pointed out, surface users cannot be expected to carry a map around with them so they can perceive where "natural," available water ends and "artificial," unavailable water begins. For the developer of artificial public water who is dissatisfied with continued public use of the surface, the alternative of restoring the bottomland to its original dry condition exists. The public could then be excluded from the premises.

Expansion of Private Waters

Commonly, private natural waters are artificially expanded without becoming navigable or in some other way meeting the definition of public water. In these circumstances, the public apparently will have acquired no rights simply because the watercourse is now classified as artificial. Whatever surface rights exist in such a watercourse would be available only to qualified riparians.

Identifying those who have private rights in artificial waters, however, has generated considerable controversy. Two fact situations need to be examined: first, where the claimants of surface rights were riparian to the original, natural watercourse, and therefore possessed riparian rights prior to the artificial expansion; and, second, where the claimants acquired riparian status only as a result of the expansion of the waterbody.

Claimants Originally Riparian. Where the claimants were originally riparian and remain so after the artificial expansion, they should not be given fewer riparian rights than they enjoyed previously. They should continue to be entitled to whatever rights they had in the water in its natural condition, including use of the original surface. The more difficult

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171. Id. at 315, 462 P.2d at 238.
172. See, e.g., Tapoco, Inc. v. Peterson, 213 Tenn. 335, 373 S.W.2d 605 (1963), where the court held that privately owned lands subsequently covered by a navigable body of water did not lose their character of private property and were not subject to uses by the public for which the original stream was not suited. Id. (emphasis added).
question is what right do they have to use those portions of the surface created by the artificial expansion.

Some portion of the artificial waterbody, in these circumstances, will cover bottomland owned by the particular riparian claimants. Unless the rights normally belonging to the landowner have been granted away, for instance in connection with a flowage easement, surface rights in the overlying water would remain with the owner of the bottom.175 This is necessary if the riparian is to have surface access to the waterbody as it was in its natural condition.

Other portions of the artificial waterbody may overlie the bottomlands of different riparians. The right of any given riparian to use the entire expanded surface should turn, as in cases involving natural waterbodies, on whether state law follows the common law or common use doctrines of surface use. There is no reason in such cases to distinguish between natural and artificial waters.

Claimants New Riparians. Where the claimants have achieved riparian status only as a result of the artificial expansion of a natural waterbody, the courts have frequently distinguished between situations where the artificial water reaches, but does not overflow, the claimant's land, and where that person's land is actually overflowed. When the water is merely adjacent to the land, riparian rights in the artificial water are commonly denied on one or more of three rationales: (1) the state only recognizes riparian rights when bottomland is owned;176 (2) no riparian rights are recognized in artificial water;177 and (3) it would amount to trespass to allow riparian rights when the bottom of the artificial waterbody is wholly owned by one person.178 This last approach is consistent with the treatment accorded by the courts to similarly situated natural waters.179

When the artificial water overflows the lands of those claiming surface rights, however, such rights are commonly recognized. Sometimes this is explained by judicial recognition that such rights would attach where a landowner's property was covered by natural waters, with the court declining to draw a distinction between natural and artificial waterbodies.

179. See, e.g., Osceola County v. Triple E Dev. Co., 90 So. 2d 600 (Fla. 1956).
ies. Where the surface dispute is between the owner of the overflowed lands and the owner of the flowage easement, the courts may examine the terms of the easement, often reaching the conclusion that the flowage easement is a grant only of the right to overflow the lands. Any rights not inconsistent with that flowage—including the right to use the surface—remain in the owner of the overflowed lands.

Whatever theory justifies the grant of surface rights to the new riparian, the question remains whether he can use the entire surface of the artificial waterbody, or is limited to surface use over his own bottomlands. In a jurisdiction which recognizes the concept of riparian rights in artificial waters—or at least in natural waters that have been artificially expanded—and has adopted the common use approach to surface rights, the entire surface should be available to the riparian. Cases limiting surface use by the riparians do so for one of two reasons. Some, while conceding that riparians may have rights in artificial waters, restrict those rights on the grounds that the jurisdiction has the common law rule of surface use, equally applicable to natural and artificial waterways. Other jurisdictions, however, deny the concept of riparian rights in artificially-expanded waters, often reaching this conclusion by reference to the historical rule against riparian rights in wholly artificial waters. This approach seems


182. For example, Missouri recognizes riparian rights in artificial waters, Brill v. Missouri, K. & T. Ry. Co., 161 Mo. App. 472, 144 S.W. 174 (1912); has recognized the common use approach for surface rights to natural waters, Greisinger v. Klinhardt, 321 Mo. 186, 9 S.W.2d 978 (1928); and has several decisions acknowledging the right to use the entire surface by riparians on artificially expanded waters. See, e.g., Bradley v. County of Jackson, 347 S.W.2d 683 (Mo. 1961); Greisinger v. Klinhardt, 321 Mo. 186, 9 S.W.2d 978 (1928); Luesse v. Weber, 350 S.W.2d 424 (Mo. App. 1961) (rights recognized but held lost by acquiescence); Mueller v. Klinhardt, 321 Mo. App. 86, 167 S.W.2d 670 (Mo. Ct. App. 1943). For an example of a state following a contrary approach, see Anderson v. Bell, 433 So.2d 1202 (Fla. 1983) (drawing a distinction between natural and artificially expanded waterbodies, and consequently denying beneficial use of the entire surface of the lake to the owner of lands beneath the surface of an artificially expanded lake, despite Florida's adoption of the common use rule with regard to natural lakes).


184. See, e.g., Anderson v. Bell, 433 So. 2d 1202 (Fla. 1983); Thompson v. Enz, 379 Mich. 667, 154 N.W.2d 473 (1967). In Anderson the Court distinguished between surface rights available
unnecessary given the recognized distinction between the two types of
waters (expanded as contrasted with wholly artificial).

The problem is illustrated by a modern Michigan case, Thompson v.
Enz. Thompson v. Enz. A real estate developer owned a parcel of land riparian to Gun Lake, a 2680-acre inland waterbody. The developer subdivided the parcel so that some 150 residential lots were created. Only a few of these touched the lake. Owners of the remaining lots would have access to Gun Lake by virtue of their location on an artificial waterbody leading from the Lake into the development. Riparians elsewhere on the Lake sought a declaratory judgment that their riparian rights would be violated by the plan. In reversing a lower appellate court decision granting summary judgment for the defendant developers, the Michigan Supreme Court ruled that although those parcels touching Gun Lake would carry riparian rights, the lots on the artificial extension of the Lake would not, inasmuch as they were not bounded by the Lake itself. Relying on the Restatement of Torts, the court defined riparian land as that bounded by a natural watercourse and noted that "artificial watercourses are waterways that owe their origin to acts of man, such as canals, drainage and irrigation ditches, aqueducts, flumes and the like." After reviewing and quoting numerous cases and authorities, the court concluded that "land abutting on an artificial watercourse has no riparian rights.

Despite the court’s recognition that "there is a well defined distinction between artificial streams and natural streams in artificial channels," it refused to carry forward the distinction and instead characterized the developer’s artificial waterways as "canals," rather than viewing them as an artificial expansion of the natural Gun Lake. No significant difference exists between the Thompson situation and any other modification of a natural waterway by artificial means. Once the similarity is recognized, there is agreement that the modified waterway should be treated as though it were natural. The Restatement of Torts, having defined artificial waterways as noted in Thompson, proceeds immediately to make

to an owner of a portion of the bottom of a natural lake (beneficial use of the entire surface), and those rights available where the lake was artificial (no right to the beneficial use of the entire lake merely by virtue of the fact of ownership of the land). For a discussion of the historical rule against riparian rights in wholly artificial waters, see generally 56 AM. JUR. Waters § 155 (1947); 67 C.J. Waters § 333 (1934); 3 H. Farnham, Waters and Water Rights § 820 (1904); J. Gould, Law of Waters § 225 (3d ed. 1900).

187. 379 Mich. at 679, 154 N.W.2d at 480 (1966). See also RESTATEMENT OF TORTS, § 841, comment h (1938).
189. Id. at 681, 154 N.W.2d at 481 (quoting 27 R.C.L. 1204).
190. See, e.g., Monteith v. Honey, 135 Ark. 407, 205 S.W. 812 (1918). See generally 93 C.J.S. Waters §§ 4(b) and 129(a) (1956); 78 AM. JUR. 2d Waters § 274 (1975). Often courts have considered the length of time since the artificial change had occurred. See Hornor v. City of Baxter Springs,
clear that the definition does not include situations where natural water-bodies have been artificially expanded.\(^9\) *Corpus Juris*, cited in *Thompson*, denies the existence of riparian rights in artificial waterways\(^9\) but states elsewhere that "... from the fact that by artificial means the channel of a natural watercourse has been changed to some extent, it does not follow of necessity that the channel thereby loses the attributes of a natural watercourse and assumes the status of an artificial watercourse."\(^{193}\) The Michigan Supreme Court in *Thompson* characterized these channels as wholly artificial waters, but such a label certainly was not mandated by prior law. Had the *Thompson* plan instead been viewed as an artificial expansion of a natural watercourse, a different result should have followed.\(^{194}\)

**Non-Navigable Private Waters Expanded to Become Navigable.** Even where a waterbody, classified as non-navigable/private in its natural state, is then artificially expanded so that it satisfies the appropriate test of navigability, the general rule is that public rights to the surface are not thereby created.\(^{195}\) This is consistent with testing the navigability of waters, for title purposes, in their natural state,\(^{196}\) and with the principle that surface rights in artificially expanded waters should reflect the rights available for use of the natural waters from which they were created.\(^{197}\) An illustrative case is *Fairchild v. Kraemer*,\(^{198}\) where plaintiff, the owner of an artificial boat basin on Long Island, New York, sought an injunction against a defendant who asserted a public right to navigate and anchor his boat in the basin. Characterizing the basin as an artificial expansion

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191. *RESTATEMENT OF TORTS* § 841 comment h (1939). The point is reiterated in *RESTATEMENT (SECOND) OF TORTS* § 841 comment h (1979).


193. All of the authorities, save one, cited in *Thompson*, 379 Mich. 667, 154 N.W.2d 473, for the proposition that artificial waters confer no riparian rights, involve drainage ditches or other wholly artificial waters. The one exception, *Ruggles v. Dandison*, 284 Mich. 338, 279 N.W. 851 (1938), appears to have fallen into the same conceptual trap as *Thompson*, although on different facts.


of a small creek which had flowed through the area and into Long Island Sound, the Appellate Division identified the critical issue as the navigability or non-navigability, in its natural condition, of the creek. Remanding the case to the trial court for a factual determination of navigability, the court observed that

if the proof does not establish that the creek was navigable in fact and that the basin constitutes an expansion of the navigable waters of the creek, then the basin, having been artificially created out of the private lands of plaintiff and his predecessors in title, and having been made navigable by artificial means, would remain private property, and the waters thereof would not be subject to any public right or easement thereon [citations omitted].

In a related criminal case involving the same set of facts, Defendant Kraemer was charged with violating a village ordinance by anchoring his boat in the artificial basin. In a detailed opinion, the local police court, evaluating the public right of navigation raised by way of defense to the trespassing charge, recognized the presence of the creek in the area subsequently covered by the basin. Moreover, the court identified a distinction between whether the facts involved "the expansion of a navigable stream over the lands held in private ownership or the expansion of the navigable waters of the Sound over such lands." Choosing to characterize the basin as the result of the flooding of private land by the navigable waters of Long Island Sound, the court concluded that one "who creates, or allows to continue, a condition whereby his land is submerged by navigable waters which the public may reach without trespassing on his upland, should be required to accept the public right of navigation as a legal concomitant of that condition." The defendant, having anchored his boat on public waters, was therefore not guilty of trespass. This result may appear anomalous in light of the implication in the related civil case that if a non-navigable natural creek were running through the premises, an injunction would lie against continuing trespasses. Both courts are correct in their analyses of the law. The critical distinction lies between expanding a non-navigable creek that crosses private land and then enters navigable water, and expanding navigable

199. Id. at 236, 204 N.Y.S.2d at 826.
201. Id. at 381, 164 N.Y.S.2d at 430.
202. Id. at 381, 164 N.Y.S.2d at 430–31. Although the outcome might be the same given a navigable stream and the expansion of navigable waters, the difference in approach would be critical if the stream, as suggested in the parallel civil case, were nonnavigable. See supra note 198 and accompanying text.
203. 7 Misc. 2d at 383, 164 N.Y.S.2d at 432.
water to cover private land. Which of these is involved in a given fact situation may be difficult to determine.

**Two Waterbodies Artificially Connected**

A third general problem area arises when two or more existing waterbodies are connected by an artificial channel or canal. Sometimes these connecting channels are excavated on land formerly dry. Often, however, they result from the artificial expansion of existing natural channels. A preliminary issue is whether the artificial channel is available for passage between the two formerly separate waterbodies. In the event that it is, what are the respective rights of private riparians, or members of the public, on one waterbody to use the surface of the other? One of three situations may be involved: (1) two public waterbodies are connected; (2) two private waterbodies are connected; or (3) one of the waterbodies is private, the other public.

The availability of an artificial channel as a means of passing from one natural waterbody to another has been considered in several cases. The distinction previously suggested, between “new” canals and those involving expansion of an existing waterway, appears to be significant. A wholly artificial canal built on private property is not available for public use, even though the canal itself is admittedly navigable, or is connected to a public, natural waterway. Where the artificial canal results from the expansion of a natural channel, on the other hand, the courts have looked to the nature of the natural waterway in identifying the rights available in the artificial canal. As a result, where a channel is naturally navigable, it does not lose that characteristic because it has been artificially deepened by dredging. Conversely, a navigable artificial channel, created by dredging a non-navigable, natural waterway, is not

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open for public use.210 These approaches are consistent with the treatment accorded natural waters—where a natural, non-navigable channel connects two public waterbodies, members of the public cannot use the channel to go from one to the other.211 Despite a finding that an artificial channel is otherwise unavailable for passage, such rights may, in a given case, be acquired by prescription,212 by dedication,213 by the acquiescence of the channel owner, or because the courts are willing to treat the artificial waterway as natural.214

If, for one reason or another, passage is available through the artificial channel, what then are the rights of riparians and members of the public on each of two connected waterbodies? For purposes of illustration, let us assume a Lake A and a Lake B, connected by an artificial channel owned by D.

Two Public Waterbodies Connected

If Lakes A and B are both public waterbodies, the answer is clear. Any member of the public can use the surface of public waters, subject only to gaining legal access. Once access is available through the artificial canal, the public is free to use the surface of either lake to the same extent as if access were by public highway or boat landing.215 This would not deprive riparian owners on either lake of any property expectations and appears unobjectionable. In as much as a riparian owner on either of the two lakes would enjoy the same privileges as other members of the public, only very rarely would it be preferable to assert a riparian right in the second lake rather than rely on surface rights available to the public at large.216

210. E.g., King v. Muller, 73 N.J. Eq. 32, 44, 67 A. 380, 384 (N.J. Ch. 1907).
212. See, e.g., United States v. 1,629.6 Acres of Land, County of Sussex, Del., 335 F. Supp. 255, 271–72 (D. Del. 1971), rev'd, 503 F.2d 764 (3d Cir. 1974) (Court of Appeals agreed with District Court on theory of acquiring rights in artificial canal, but refused to apply theory to facts at hand).
213. E.g., Weatherby v. Micklejohn, 56 Wis. 73, 13 N.W. 697 (1882).
215. See note 11 supra and accompanying text.
216. Were the right being taken for a public purpose, it would be preferable, indeed necessary, to establish a private right. Cf. Colberg, Inc. v. State of California, 67 Cal. 2d 408, 432 P.2d 3, 62 Cal. Rptr. 401 (1967), cert. denied, 390 U.S. 949 (1968), supra notes 20–23 and accompanying text. If the right were being exercised, however, it seems likely that those exercising a public right would be held to a looser standard than private riparians. See generally RESTATEMENT (SECOND) OF TORTS § 850A (1977). But cf. Botton v. State, 69 Wash. 2d 751, 420 P.2d 352 (1966), and comments in note 9, supra.
Two Private Waterbodies Connected

Where Lakes A and B are both private waterbodies, the situation is more complex.\(^{217}\) One must first assume that the jurisdiction in question follows the common use approach to surface use. Otherwise, expanded rights would be denied to the riparians in question. Assuming common use, there are several approaches by which the underlying question of surface rights might be solved.

The first would be to allow unrestricted use of the surface of Lake B by riparian owners on Lake A and vice versa. This solution has some virtues. In addition to requiring little or no administrative or judicial supervision, it would open up more water for recreational and other surface uses, a social goal advocated by some writers in the field.\(^{218}\) Of course the beneficiaries of these enhanced recreational opportunities would be a small group of fortuitously located riparians, rather than the public at large. Furthermore, allowing Lake A riparians unrestricted use of Lake B could lead to serious overuse of Lake B and the dislocation of the property expectations of Lake B's riparian owners, especially where Lake B is smaller than Lake A, or the number of riparians on Lake B substantially fewer than on A. On balance, this unrestricted use approach is unappealing.

At the other extreme, courts could refuse to expand the rights of riparians beyond the waters of the lake on which their property was located, despite the availability of passage to the other waterbody. This would produce anomalous results for at least two reasons. First, the artificial channel, in order to go from Lake A to Lake B, would eventually cross the lands of the riparian owner, D, who may even be riparian to both lakes. Even in the absence of the artificial channel, D is free, under existing legal doctrine, to extend the use of the surface of his lake to personal guests and other invitees,\(^{219}\) subject to the appropriate rules of reasonableness.\(^{220}\) D's extension of rights of passage to riparians from Lake A seems tantamount to inviting them to use the surface of Lake B.

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\(^{217}\) No reported case appears to have dealt with this particular fact situation. It would be rare that two private waterways would be connected by an artificial channel through which a right of passage was available.


\(^{219}\) E.g., Beach v. Hayner, 207 Mich. 93, 173 N.W. 487 (1919); State Game & Fish Comm’n v. Louis Fritz Co., 187 Miss. 539, 193 So. 9 (1940); Improved Realty Corp. v. Sowers, 195 Va. 317, 78 S.E.2d 588 (1953); Snively v. Jaber, 48 Wash. 2d 815, 296 P.2d 1015 (1956).

\(^{220}\) For a discussion of the factors to be employed in determining the reasonableness of a particular water use, see Thompson v. Enz, 379 Mich. 667, 688-89, 154 N.W.2d 473, 484-85 (1967); see generally RESTATEMENT (SECOND) OF TORTS § 850A (1977).
Permitting them to arrive by road but not by boat makes no sense. Furthermore, it is difficult to rationalize not extending surface use rights to riparians on Lake A in these circumstances, yet extending them to persons whose riparian status is created by the expansion of a single lake or other waterbody, as is done under existing law.

A suggested compromise lies in applying the rules of reasonable use to determine the availability of Lake B to the Lake A riparians. This could be done by ascribing any use of the artificial channel to D, the owner of the riparian land across which it ran. Such uses could be subjected, on a case by case basis, to whatever rules of reasonableness would normally be applicable to the guests and other invitees of D. The problem with this solution lies in policing it. Each time a different, perhaps larger, group of Lake A riparians used the surface of B they, and presumably D, could be called to task to account for the reasonableness of their behavior. The courts could avoid the hazards of ongoing injunctive supervision by ordering D to police the use under threat of civil contempt or fine, at least where the presence of the Lake A riparians on Lake B was attributable to D's acquiescence.

An alternative is to make the determination about the availability of Lake B only once—at the time the question first arises. Assuming the worst case, simultaneous use of Lake B by all of the riparians on Lake A, would such a use be unreasonable as to Lake B? If the answer to that question, based on appropriate evidence, is yes, then no use of Lake B by Lake A riparians would be permitted. If such cumulative use would not overburden Lake B, then Lake A riparians would be permitted to use B. The burden of the use by the Lake A riparians would still have to be attributed to D, so as to avoid the possible problem of D's adding his own guests to the Lake A riparians, to the disadvantage of the other riparian owners on Lake B. This solution would extend surface rights to Lake A riparians where to do so would not violate familiar standards of reasonableness, and would place the burden of the new riparian uses on D. Since D is the owner of the canal, the presence of which has created the problem, placing this burden on him does not seem unreasonable.

221. This is particularly so when the public's right of passage has been acquired by dedication or prescriptive easement. Title to the access easement having passed to the public or the Lake A riparians, it should make no difference whether that easement is by road or by waterway.

222. See Notes 180–81 supra and accompanying text.


224. A good argument can be made that where D has parted with title to a right-of-way easement through dedication or prescription, he ought not to be required to further police the activities of those who have acquired the right-of-way.

225. For examples of the type of evidence that might be germane to a determination of the reasonableness of a water use, see Thompson v. Enz, 379 Mich. 667, 688–89, 154 N.W.2d 473, 484–85 (1967).
One Waterbody Private and One Public

A final situation arises when one of the two connected waterbodies is public and the other private. For purposes of illustration, let us assume a public Lake A and a private Lake B.

The right of the riparians on Lake B to use the surface of Lake A is clear, once they have gained legal access through the artificial canal. This conclusion requires no analysis of riparian rights. Once they reach A, landowners abutting Lake B can assert the same surface rights as could any other member of the public. Any rights uniquely attributable to their land ownership are essentially irrelevant. No advantage lies, in these circumstances, in relying on private riparian rights as opposed to public rights.

On the other hand, members of the public arguably should not be allowed to exercise rights on private Lake B, even when access is provided by the artificial canal. This situation was involved in a recent U.S. Supreme Court case, Kaiser Aetna v. United States,226 where a shallow lagoon in Hawaii was separated from a navigable ocean bay by a narrow barrier beach.227 In 1961 Kaiser Aetna, lessee of the lagoon and the land surrounding it, advised the Army Corps of Engineers of its plans to convert the lagoon into a marina by dredging and filling, along with other construction work. The Corps responded that federal permits would not be required for this activity.228 The developers subsequently informed the Corps of their plans to dredge an eight-foot-deep channel connecting the lagoon, Kuapa Pond, with the navigable Maunalua Bay and the Pacific Ocean. The Corps acquiesced.229 In order to pay for security and maintaining the marina, owners of waterfront lots and boats berthed at the marina paid fees to Kaiser Aetna.230

In 1972, after the marina was completed, the Corps took the position that the developers must obtain authorization from the Corps for future improvements and could not deny access to the lagoon to the general public. The Corps reasoned that the improvements had converted the formerly private lagoon into navigable water of the United States.231 To enforce these positions, the United States sought injunctive relief and a declaratory judgment in federal District Court.232

After pointing out that the phrase "navigable waters" means different things for different purposes,233 the District Court held that Kuapa Pond


227. Id. at 166.
228. Id. at 167.
229. Id.
230. Id. at 168.
231. Id. at 170.
233. Id. at 48–49.
in its improved state was navigable water of the United States and thus subject to the regulatory authority of the Corps.\textsuperscript{234} Nevertheless, the Corps lacked the authority to open the pond to the public without paying compensation to its owners.\textsuperscript{235}

On appeal, the Ninth Circuit Court of Appeals agreed that the artificially improved pond had become navigable water of the United States.\textsuperscript{236} It further concluded that the federal navigational servitude attached to these waters, and that Kaiser Aetna was not entitled to compensation for being deprived of the right to exclude the public.\textsuperscript{237}

The United States Supreme Court reversed in part.\textsuperscript{238} Although the Court agreed that Kuapa Pond was within the definition of navigable waters for the purpose of defining the regulatory authority of Congress under the Commerce Clause,\textsuperscript{239} it observed that the “cases dealing with the authority of Congress to regulate navigation and the so-called ‘navigational servitude’ cannot simply be lumped into one basket.”\textsuperscript{240} It added that “this Court has never held that the navigational servitude creates a blanket exception to the Takings Clause whenever Congress exercises its Commerce Clause authority to promote navigation.”\textsuperscript{241} The Court held that the Corps could not subject Kuapa Pond to public access without paying compensation.

In reaching this conclusion, the Court first noted that although Congress could choose to assure the public a free right-of-access, the more important—and separate—question was whether this would be a compensable taking,\textsuperscript{242} an issue which the Court recognized as having involved in the past “essentially ad hoc, factual inquiries.”\textsuperscript{243} In this connection, the Court characterized the navigational servitude as “an expression of the notion that the determination whether a taking has occurred must take into consideration the important public interest in the flow of interstate waters that in their natural condition are in fact capable of supporting public navigation.”\textsuperscript{244} The Court then identified three factors as persuasive in establishing that public access would involve a taking in these circumstances:\textsuperscript{245} (1) because of the private nature of the original pond under state law, and the circumstances of its development, the interest of Kaiser

\textsuperscript{234}. \textit{Id.} at 53.
\textsuperscript{235}. \textit{Id.} at 54.
\textsuperscript{236}. \textit{United States v. Kaiser Aetna}, 584 F.2d 378, 383 (9th Cir. 1978).
\textsuperscript{237}. \textit{Id.} at 383–84.
\textsuperscript{239}. \textit{Id.} at 172.
\textsuperscript{240}. \textit{Id.} at 170.
\textsuperscript{241}. \textit{Id.} at 172.
\textsuperscript{242}. \textit{Id.} at 174.
\textsuperscript{243}. \textit{Id.} at 175.
\textsuperscript{244}. \textit{Id.} (emphasis added).
\textsuperscript{245}. The Court avoided characterizing any of these factors as controlling. \textit{Id.} at 178, n.9.
Aetna in Kuapa Pond "is strikingly similar to that of the owners of fast land adjacent to navigable water," for which compensation would have to be paid; (2) the former private property was linked to navigable water by a channel dredged "with the consent of the government;" and (3) rather than causing an insubstantial devaluation of private property, "the imposition of the navigational servitude in this context will result in an actual physical invasion of the privately owned marina." While not leading to estoppel against the United States, the consent of the government to the dredging can lead to certain expectations in the nature of property—including the right to exclude—which cannot be taken without compensation. Thus, if the government wishes to make a public aquatic park out of Kuapa Pond, it must invoke its eminent domain powers and pay just compensation.

The Supreme Court's decision in Kaiser Aetna evoked a flurry of scholarly comment, some critical. Perhaps the decision is not as far reaching as some have imagined. The rather unusual fact situation makes it difficult to assess the impact of the decision on the scope of the navigational servitude. To the extent that the opinion stands for the proposition that the concept of navigability varies with the purpose for which it is being employed, the decision introduces no new doctrine. The notion that the federal regulatory authority may extend over waters not necessarily open to public use also reiterates existing law. Whatever one may think of the outcome in Kaiser Aetna, the decision need not rest on grounds

246. Id. at 179.
247. Id.
248. Id. at 180.
249. Id.
251. For a discussion of the various settings in which navigability is important, see Frank, Forever Free: Navigability, Inland Waterways, and the Expanding Public Interest, 16 U.C.D. L. REV. 579, 582-89 (1982).
252. The authority of the Corps of Engineers to regulate refuse discharges under the Rivers and Harbors Act of 1899, 33 U.S.C. § 407 (1982), is illustrative. See, e.g., United States v. Colgate-
which so tend to cloud the traditional concepts of the navigational servitude.

An alternative approach is to analyze this situation in terms of private water artificially connected to public water. There seems no good reason to allow an individual member of the public to use an artificial channel to move, as in the hypothetical suggested earlier, from Lake A to Lake B and then assert "public" rights in derogation of the private rights of the Lake B riparians. When the government attempts this as in Kaiser Aetna, denying compensation under the rubric of the navigational servitude, a use is being asserted on behalf of the public at large.\textsuperscript{253} In Kaiser Aetna, Kuapa Pond was originally private property under state law.\textsuperscript{254} Merely connecting private water to navigable water should not result in public access. Even where the private waterbody itself is artificially rendered navigable, existing case law would not support its use by individual members of the public.\textsuperscript{255} To so restrict the scope of the navigational servitude would not be inconsistent with that doctrine's goal of protecting the public right to navigate. When navigable water is artificially created, the party responsible "has a superior claim to that of the public generally, a claim no one can have with respect to naturally navigable waters."\textsuperscript{256} Limiting the navigational servitude to this latter category would not frustrate any public expectations, and would have the virtue of injecting into the servitude an element of predictability that is not fostered by the opinion in Kaiser Aetna.

CONCLUSION

With the growing demand for water-based recreational opportunities,\textsuperscript{257} conflicts over the right to use the surface of artificial watercourses likely will arise with increasing frequency in the future. This article has sought to articulate the principles by which surface rights in natural watercourses are allocated and to examine the application of these principles to a variety of situations involving artificial bodies of water.

Several themes emerge. First, the rules applicable to surface rights in

\textsuperscript{253} For an analysis of Kaiser Aetna v. United States in the context of the takings clause of the fifth amendment, see Note, The Supreme Court, 1979 Term, 94 HARV. L. REV. 205 (1980) (Public Right of Access to Privately Created Navigable Waterway).


\textsuperscript{255} See notes 195-99 supra and accompanying text.


natural watercourses are a complex product of common law and statutory development, and vary widely between one jurisdiction and another. Second, the phrase "artificial watercourse" has been employed to describe a wide variety of factual situations. Failure to discriminate among them has led to questionable applications of riparian principles. Third, the courts have found the rules associated with natural watercourses helpful in allocating surface rights in some artificial watercourse situations, but not in others. From state to state, the choices have been inconsistent.

Finally, reliance on a complex network of common law riparian rules is arguably not an effective method of allocating surface rights to either natural or artificial waterbodies. Proposed alternatives, however, have not been widely adopted by courts or legislatures. Until they are, a clearer pattern of applying riparian law to the allocation of surface rights in artificial waterbodies must be developed.