Private Rights and the Public Trust: Opposing Lakeshore Funnel Development

Daniel G. Kagan
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I. INTRODUCTION

The battle for Golden Pond is on. The traditional lakeshore summer cottage owner and the multiunit real estate developer are competing for control over the country's prime inland recreational waters.¹ The summer cottage owner wants to maintain the lake as a peaceful retreat for boating, fishing, and swimming by day and listening to the loons by night in relative privacy. The developer sees available lakefront real estate as an opportunity to profit from the enormous demand for vacation property.² A high density, multiunit funnel development³ allows many more purchasers to buy homes with lake access than does a development of single family units. Large-scale development and recreational use, however, can interfere with the existing cottage owner's enjoyment of the lake as well as threaten the lake's idyllic, healthy state. Accordingly, the developer's interest in turning a profit is at odds with the existing riparian owners' desire to maintain the status quo.

To maximize marketing position, developers stress access to the lake's crystal clear waters for each purchaser's recreational use as

* Editor in Chief, 1987–1988, BOSTON COLLEGE ENVIRONMENTAL AFFAIRS LAW REVIEW.
¹ Kusler, Carrying Controls for Recreational Water Uses, 1973 WISC. L. REV. 1 [hereinafter Kusler, Carrying Controls]. Lakes, the principle inland recreational waters, are concentrated largely in a northern bank of glaciated states including Maine, New Hampshire, Vermont, Massachusetts, New York, Michigan, Wisconsin, Minnesota, North Dakota, Montana, Idaho, and Washington. This relatively fixed supply must meet skyrocketing water oriented recreation demands. Id.
³ See infra notes 17–27 and accompanying text.
an integral part of the development package.\textsuperscript{4} However, with lakeshore frontage in increasingly short supply and commanding lofty prices, developers rarely can provide each purchaser with a waterfront lot.\textsuperscript{5} Instead, the developer maximizes profits by building multifamily units on a large, relatively inexpensive tract of nonriparian land and providing each owner with water access through a small parcel of riparian land.\textsuperscript{6} This type of project is known as “funnel development,” because large numbers of nonriparian owners are funneled to the lake through a riparian parcel of limited size.\textsuperscript{7}

Funnel development projects are not new. Disputes relating to these projects have been before the courts since the 1960’s,\textsuperscript{8} and several commentators have addressed the issue.\textsuperscript{9} The effects such development can have on lakes are known.\textsuperscript{10} Although some lakes are more capable than others of sustaining recreational use and development, no lake can withstand indiscriminate overuse.\textsuperscript{11} States recognize that introducing high density development to a lake can cause significant deleterious effects to the lake’s quality.\textsuperscript{12}

Generally, zoning and land use regulations restrict lakeside development, and riparian owners can seek common law relief based on the reasonable use\textsuperscript{13} and private nuisance\textsuperscript{14} doctrines. However, these avenues are not always sufficient to limit development. Zoning laws are often ineffective or nonexistent.\textsuperscript{15} Individual cottage owners may not have the means to pursue litigation, and courts may hesitate to preserve a cottage owner’s semiprivate enjoyment of a lake by restricting development that would increase lake access.\textsuperscript{16}

\textsuperscript{5} Id.
\textsuperscript{6} Id.
\textsuperscript{7} See id. at 1039.
\textsuperscript{10} See infra notes 28-48 and accompanying text.
\textsuperscript{12} Maine Times, December 19, 1986, at 12A, col. 1. Officials in Maine have categorized that state’s lakes to determine those lakes that the state should protect and those that can best withstand further development. Numerous factors determine lake quality, including but not limited to aquatic and other wildlife, scenery, physical features such as caves and waterfalls, shoreline, accessibility, water volume, and rate of turnover. \textit{Id.}
\textsuperscript{13} See infra notes 81-90 and accompanying text.
\textsuperscript{14} See infra notes 106-09 and accompanying text.
\textsuperscript{15} See infra notes 49-78 and accompanying text.
\textsuperscript{16} See infra notes 116-26 and accompanying text.
This Comment suggests another common law doctrine that a riparian owner can raise in opposition to funnel development. In states where lakes are owned by the public and held in trust by the state, members of the public may sue the state under the public trust doctrine for violating the trust. By allowing developers to overburden a public lake with excessive development, the state has allowed a small minority to profit at the expense of the state-held trust. As an alternative to suing developers for interfering with private riparian rights, lakeshore cottage owners can sue the state under the public trust doctrine to preserve an invaluable public resource from irreparable damage caused by overdevelopment. Accordingly, through the public trust doctrine, cottage owners become defenders of the public’s interest in environmental conservation, rather than self-serving elitists interested only in keeping others off “their” lake.

The public trust doctrine is still developing, and cases applying the doctrine in opposition to funnel development have not been reported. This Comment discusses why the public trust doctrine is a valid legal basis for opposing a developer’s plans for funnel development. Section II discusses why funnel development can be a particularly attractive method for developers to capitalize on the increasing demand for shorefront property. Section II also addresses the various problems funnel development projects can cause. Section III addresses shortcomings in the zoning and land use regulatory process, and explains why zoning and land use ordinances do not protect lakes sufficiently in all cases. Section IV discusses the nuisance and reasonable use doctrines, and the problems with applying these doctrines as remedies to funnel development. Section V introduces the public trust doctrine and discusses how it applies to funnel development. Finally, this Comment concludes that courts should permit riparian owners to bring suit based on the public trust doctrine in opposition to funnel development.

II. FUNNEL DEVELOPMENT AND THE INCREASING DEMAND FOR LAKESHORE PROPERTY

The demand for vacation property in general, and property with recreational water access in particular, is skyrocketing. Several factors appear to drive this demand. First, the overall strength of the economy and low mortgage rates have bolstered the real estate market generally, and increasing numbers of two income families

17 Resort Home Prices Soaring in Northeast, supra note 2.
are looking to buy attractive properties as an investment.\textsuperscript{18} A second factor that fuels demand for lakeshore property is that for many people who participate in water-based recreational activities, owning waterfront property is the only feasible way of assuring access to a lake.\textsuperscript{19} Aesthetic considerations also fuel this increasing demand for waterfront vacation property, as many buyers seek to escape to the beauty, peace, and solitude that a lakeside residence can provide.\textsuperscript{20}

The fixed supply of property with waterfrontage increases the pressures that this dynamic demand for waterfront property creates.\textsuperscript{21} Where strong demand meets fixed supply, the pressure manifests itself in higher prices.\textsuperscript{22} Accordingly, prices for vacation properties along northern New England’s lakes and seashores are soaring, with increases ranging from a low of ten percent to a high of fifty percent or more annually, in the most desirable waterfront areas.\textsuperscript{23} Fewer potential buyers can afford the high cost of single unit, horizontal structures on waterfront lots.\textsuperscript{24} Furthermore, decreasing availability of waterfront property limits the opportunities for developers searching for suitable development property.\textsuperscript{25}

Funnel development has been a logical response to this problem. Because lake access is so desirable, developers maximize their return from lakeside property by providing water access to each purchaser of a nonriparian parcel. Such development projects “funnel” a large number of backlot unit owners to the shoreline through a relatively small parcel of riparian land. Developers can afford to construct multiunit funnel development projects on land that they could not develop economically with single-family homes, because they can

\textsuperscript{18} Melissa Shackleton, Boston Office of Sotheby International Real Estate, \textit{quoted in Resort Home Prices Soaring in Northeast}, supra note 2.

\textsuperscript{19} As property around lakes is privately developed, public access to many lakes becomes increasingly scarce. \textit{Canobie Lake Shores Not for General Public}, Boston Globe, November 9, 1986, at 83, col. 7. States are becoming aware of this problem and embarking on ambitious programs to acquire lakeside property for public access. \textit{Id.}


\textsuperscript{21} As Will Rogers is commonly believed to have said, “Buy land. They don’t make any more of it.” This quotation is inaccurate, however. The actual quotation is “I have been putting what little money I have in ocean frontage for the sole reason that there was only so much of it and no more, and they [sic] wasn’t making any more.” B. Sterling, \textit{The Best of Will Rogers} 230 (1979).

\textsuperscript{22} See \textit{Changes Are Coming in the Maine Condominium Market}, 8 Real Estate Update (Maine), November, 1986, at 1, col. 1 [hereinafter \textit{Maine Condominium Market}].

\textsuperscript{23} \textit{Resort Home Prices Soaring in Northeast}, \textit{supra} note 2; \textit{The Land Rush is On}, Maine Sunday Telegram, November 9, 1986, at 1, col. 2.

\textsuperscript{24} Bartke & Patton, \textit{supra} note 4, at 1007.

\textsuperscript{25} \textit{Id.}
divide land acquisition costs among all the purchasers in the project. Units in funnel development projects are particularly attractive to purchasers who otherwise could not afford a home that includes water access. Developers provide this water access through various structuring schemes, including easements, leases, condominiums, and cooperatives, as well as giving outright deeds of "mini-fee simple" ownership of riparian land.

Funnel development projects can, however, have a serious adverse impact on lakes. A funnel development allows intensified recreational use that can hurt both the lake's aesthetic qualities and its fragile ecosystem. As recreational use approaches the lake's carrying capacity, conflicts among users develop. For example, a relatively uncrowded lake can accommodate fishermen, swimmers, and water skiers simultaneously, but as the lake reaches its carrying capacity, each type of activity affects adversely enjoyment of another. Thus, the fisherman obstructs the water skier by reducing the surface area available for skiing, while the skier interferes with the fisherman by disturbing the fish. The net result of such intensified use is a reduction in the quality of the lake for both recreational and aesthetic enjoyment.

Another problem with funnel development is that it imposes a "fourth neighbor" upon abutting riparian owners. The "fourth neighbor" is the boater or swimmer who uses the water in front of another.

26 Id.
27 Id. at 1040. The term "mini-fee simple" describes one form of lakeshore access right a developer may provide in a funnel development project. Id. The developer conveys to each backlot purchaser a token amount of riparian land that is sufficient to give the purchaser full riparian rights. Id. This technique allows backlot owners to "enjoy the permanency and benefits of fee ownership of riparian property." Id. For an exhaustive discussion of various means of creating funnel developments, see id. at 1038–60.
28 Kusler, Carrying Controls, supra note 1, at 5. Carrying capacity refers to the optimum number of people using the lake for recreation at any one time. Factors include the size, shape, and depth of the lake and the type of use contemplated. Id. at 5–7.
29 Id. at 6.
30 Id.
31 In Silver Blue Lake Apartments v. Silver Lake Home Owner's Ass'n, the court cited the plaintiff's complaint that "the use of the lake by the tenants of the apartments creates such congestion on the lake that others can no longer enjoy boating on the lake in safety. In fact, at least one of the homeowners testified that his family now usually went elsewhere to go boating because of the congestion and unsafe condition at Silver Blue Lake." 225 So.2d 557, 559–60 (Fla. 1969), cert. dismissed, 245 So.2d 609 (Fla. 1971).
32 The New Hampshire Office of State Planning prepared a report that addressed how New Hampshire lakeshore owners use and enjoy New Hampshire's lakes. LAKES AND GREAT PONDS REPORT, supra note 11. The report stated that lakeshore owners rank aesthetics, peace, and solitude as their primary concerns. Id. at 20.
er's property.\textsuperscript{33} This problem is most often associated with funnel development because where many people use a narrow stretch of shoreline, they tend to “fan out” into the semipublic spaces of the neighboring shoreowners to swim and boat.\textsuperscript{34} Shoreowners regard their shoreline and the area in front of their property as their own, and resent another's use of this semiprivate space.\textsuperscript{35} An abutting owner's riparian rights are thus affected particularly by funnel development, and these abutting owners are especially likely to oppose such a project.

More important than affecting other riparian owner's recreational use and enjoyment of a lake, funnel development can deteriorate the lake's water quality. For example, funnel development projects can introduce pollutants to a lake.\textsuperscript{36} Indirect pollution occurs incidentally to a variety of land uses such as residential development and may present a serious problem.\textsuperscript{37} Drainage and runoff systems for subdivision roads and parking lots carry a wide variety of chemicals, nutrients and debris into storm water drainage channels and eventually into the lake.\textsuperscript{38} Furthermore, substances dissolved in ground water can migrate long distances.\textsuperscript{39} Pollutants such as pesticides and fertilizers are common to leisure home communities and present hazards to the lake, even when used some distance from the shore.\textsuperscript{40}

In addition, excessive use of a lake by motorboats can cause eutrophication, particularly in lakes that turn over naturally at a slow rate.\textsuperscript{41} Eutrophication occurs when oxygen-consuming algae blooms accumulate in a lake.\textsuperscript{42} Eutrophication injures much of the fish pop-

\textsuperscript{33} The term “fourth neighbor” arises from the presence of persons using the water in front of a lakeshore cottage. Neighbors one, two, and three are those abutters to the left, behind, and to the right of the cottage; the “fourth neighbor” is one who intrudes on the cottage's privacy from the water, that is, the fourth side. \textit{Hello, Fourth Neighbor}, Maine Times, July 19, 1985, at 10, col. 3.

\textsuperscript{34} \textit{Id.}

\textsuperscript{35} \textit{Id.}


\textsuperscript{37} \textit{Id.; Lawn Lovers Win, Lose}, Maine Times, June 12, 1987, at 12, col. 1.

\textsuperscript{38} \textit{Id.} at 43; \textit{Hello, Fourth Neighbor}, supra note 33.

\textsuperscript{39} Kusler, Wisconsin Lakes, supra note 36, at 44.

\textsuperscript{40} \textit{Lakes and Great Ponds Report}, supra note 11, at 20.

\textsuperscript{41} A lake's natural turnover rate refers to the time it takes for incoming water to completely replace water lost from the lake through drainage and evaporation. A high turnover rate aids in flushing the lake of contaminants, while a low turnover rate means that contaminants are more likely to accumulate in the lake. A higher turnover rate diminishes eutrophication. See Comment, \textit{South Dakota's Lakes: A Valuable Resource in Need of Land Use Protection}, 20 S.D.L. REV. 598, 602–03 (1975).

\textsuperscript{42} \textit{Id.} at 602.
ulation by diminishing the oxygen supply and can turn a healthy lake into a putrid swamp. Motorboats are a primary cause of algae-causing eutrophication because they kick up sediment from the lake floor. Motorboats also release significant amounts of exhaust and gasoline into the water, which may have a direct detrimental effect on the lake's condition.

Lakeshore development can also exact a toll on wildlife in and around the lake. A great variety of waterfowl, aquatic mammals, and fish spend some part of their lives in the area closest to a lake's shoreline and are vulnerable to funnel development's particularly deleterious effects. For example, overuse of a lake generates surface traffic in close proximity to the shoreline and affects loon nesting sites. Furthermore, erosion and runoff caused by shoreline development, as well as power boating, can destroy lakeshore vegetation. Such loss of vegetation disrupts wildlife, destroys shelter for animals, and decreases the lake's filtering capabilities.

Development of lakeshore property thus affects seriously the health of the lake and the wildlife community it supports. This unhappy result spoils the lake for current lakeshore owners and the surrounding communities, and may make the lake unavailable for future generations to use and enjoy. Zoning and land use regulations can control development and prevent these damaging results. Zoning and land use laws, however, do not regulate lakeshore development effectively in all cases. While such regulations can restrain funnel development projects considerably, they are not always sufficient to protect the lake environment from degradation.

### III. Shortcomings of Zoning and Land Use Regulations

State and local governments have long used zoning and land use laws as controls on land development. These controls protect crit-

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43 Id.
44 LAKES AND GREAT PONDS REPORT, supra note 11, at 9.
45 Id. at 4.
47 LAKES AND GREAT PONDS REPORT, supra note 11, at 33.
48 Id. at 28. Fertilizer can cause water quality and aesthetic problems by acting as a nutrient for algae and aquatic nuisance weeds. Id. at 20. Whether the source is cultivation of farmland, grooming of lawns and gardens, or urban-type runoff, introduction of chemicals not naturally found in a lake, or elevated levels of substances already there can lead to unhealthy infestations. Id. This deteriorates water quality and crowds out higher forms of aquatic life, including game fish. Id. at 29–30.
ical environmental areas and ensure development suitable for particular types of land. The 1926 Supreme Court decision in *Euclid v. Amber* established the constitutionality of zoning ordinances. The Court based its decision on the state’s police power to protect the public’s general welfare. *Euclid* threw open the floodgates on land use controls, and today, these controls are the primary regulatory tools used by local governments to guide development within their jurisdictions. All fifty states authorize these local regulations, and more than ten thousand local governments have adopted them.

The form and substance of today’s land use regulations have changed little since the 1920’s and fall within typical patterns. State legislatures enact enabling statutes that delegate the responsibility for land use planning to local government units. These enabling statutes charge the local government unit with responsibility to create a comprehensive or master plan. Without a comprehensive or master plan, no municipality may enact zoning ordinances. In more recent years, state governments have repealed some of the enabling powers in order to exercise comprehensive planning themselves. Accordingly, power to enact and enforce land use regulations is vested currently in state and local governments.

Often, however, state and local governments are unwilling to provide, or are incapable of providing, meaningful land use guidelines. This failure to provide such guidelines allows large-scale development to proceed unchecked. The state and local governments’ inability or unwillingness to restrict development stems from several factors. Economics plays a significant role in encouraging develop-

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50 *E.g.*, Morris County Land Improvement Co. v. Parsippany-Troy Hills, 40 N.J. 539, 193 A.2d 232 (1963); Just v. Marinette County, 56 Wis. 2d 7, 201 N.W.2d 761 (1972).
51 272 U.S. 365 (1926).
52 *Id.* at 390. The town of Euclid, Ohio, had adopted an ordinance dividing the municipality into districts and imposing land use classifications based on these subdivisions. *Id.* at 367. The Supreme Court reversed the district court, finding the ordinance a valid exercise of the state’s police power. *Id.* at 397.
54 *Id.*
55 *Id.* at 21.
56 Local government units have no power to enact zoning ordinances in the absence of express enabling statutes granting the authority. R. WRIGHT, supra note 49, at 657.
57 *Id.* at 662.
58 *Id.* This requirement reflects the general theory that zoning is a tool to be used in achieving a comprehensive planning goal. *Id.*
59 D. CALLIES, CASES AND MATERIALS ON LAND USE 901 (1986).
60 See *id.* For a political and legal overview, see generally LAMB, LAND USE POLITICS AND LAW IN THE 1970s, at 5-12 (1975).
61 Kusler, *Carrying Controls*, supra note 1, at 26.
ment of attractive but fragile shoreline areas. Municipal authorities are aware that development creates new sources of local revenue and employment. Accordingly, municipalities often will not enact zoning laws that would obstruct lucrative shoreline development.

Other problems exist when local governments are not organized sufficiently or in a position financially to undertake the regulatory process. Municipalities often have neither the money nor the expertise required to conduct water and shoreland area studies and to devise effective plans. For example, in southern Maine, where development pressure is particularly acute, local officials charged with making land use decisions are besieged by too many projects, and are armed with inadequate technical help and outdated or ineffective ordinances. Local officials complain that, even if they were inclined to impose funnel development restrictions, they do not have the time or expertise to explore how to create and apply them. Similar pressures force regulators to approve major developments on a case-by-case basis and ignore the broader effect that haphazard development has on an area. Local planning boards are so busy reacting to applications for new projects that they have no time for long range planning. Furthermore, many towns that have comprehensive plans do not carry them out. Instead of incurring the trouble and expense of applying these plans, the towns ignore established goals of protecting resources or character.

Some zoning problems are the result of confusion between state and local authority. In Maine, for example, the state determines minimum regulatory requirements, but looks to the local govern-

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62 Id.
63 Id.
64 Id. Building Boom Overwhelms Controls on Development, Maine Sunday Telegram, August 24, 1986, at 1A, col. 1 [hereinafter Building Boom].
65 Building Boom, supra note 64.
66 Telephone interview with Peter Lowell, Director of the Lakes Environmental Association, Bridgton, Maine (September 22, 1986); Telephone interview with Lori Fisher, Lake Champlain Committee, Burlington, Vermont (September 23, 1986).
68 Id.
69 Id. Size, however, is not necessarily a limiting factor in a small town's ability to enact effective zoning. For example, the town of Northfield, Maine (population 88) followed an eighteen month building moratorium with an ordinance that restricts shoreline development on Bog Lake considerably. Small Town, Big Ideas, Maine Times, July 31, 1987, at 9, col. 1. Town residents voted 36-6 to enact an ordinance that, among other things, limits building density around the lake to one unit per 15-20 acres, and extends watershed building controls to 750 feet from the water's edge. Id.
70 Lakes and Great Ponds Report, supra note 11, at 21.
ments to enforce these requirements.\textsuperscript{71} For reasons discussed above, local governments that are too small to create effective zoning have similar difficulties administering the state-designed regulations.\textsuperscript{72} Other problems arise if the local authority wishes to encourage development that state law is designed to restrict. Furthermore, even where both state and local officials agree that lakeshore development needs regulation, each may point to the other as the true regulatory authority.\textsuperscript{73}

Additional factors limit the effectiveness of zoning and land use restrictions. For example, sometimes towns themselves participate in the planning and execution of funnel development projects. This conflict of interest can compromise the town's role as regulator and enforcer of zoning ordinances.\textsuperscript{74} Frequently, lakes and ponds cross the boundaries of several townships and municipalities, creating jurisdictional problems where there is little or no coordination among the towns on the same lake.\textsuperscript{75} Even where all communities in a given lake region have adopted regulations to treat waterfront development problems within their own jurisdictions, often there is no coordinated, uniform approach toward relating regulations from one town to another.\textsuperscript{76}

Furthermore, developers exploit loopholes in the law in order to avoid the cumbersome, time consuming project review process.\textsuperscript{77} For example, where zoning regulations restrict development within

\begin{itemize}
\item \textsuperscript{71} Title 38 of the Maine Revised Statutes Annotated requires each municipality to develop and enact zoning and subdivision control ordinances which meet minimum state-imposed standards. Me. Rev. Stat. Ann. tit. 38, § 438 (1986). The Department of Environmental Protection and the Maine Land Use Regulation Commission impose zoning and land use ordinances on those municipalities that fail to adopt regulations which meet state standards. Id. § 442.
\item \textsuperscript{72} Kusler, Carrying Controls, supra note 1, at 26.
\item \textsuperscript{73} In New Hampshire, hearings concerning the development of Lake Winnipesaukee were held during the summer of 1984. LAKES AND GREAT PONDS REPORT, supra note 11, at 22. "A lot of finger pointing was directed at the state for not doing enough to enforce regulations already on the books or to help control development. At the same time, the state points out that these types of concerns should be addressed with a strong local input." Id.
\item \textsuperscript{74} For example, in Burlington, Vermont, city officials participated in a controversial land swap arrangement with a developer who wished to develop a lakeshore parcel into a mixed residential/retail project. Some observers felt that the city's "neutral" role was compromised by its participation in the venture. Fisher interview, supra note 66.
\item \textsuperscript{75} LAKES AND GREAT PONDS REPORT, supra note 11, at 21.
\item \textsuperscript{76} For example, on Lake Winnipesaukee in New Hampshire, neither the town of Laconia nor the town of Gilford imposed any minimum shoreline frontage requirements on lakeshore parcel development, while six other towns had varying formulas for lakeshore lot frontage requirements. Id.
\item \textsuperscript{77} Building Boom, supra note 64.
\end{itemize}
a given distance of the shoreline, funnel developers can build their units outside the restricted area, leaving the funnel to the lake unimproved. In this way, developers avoid the zoning restriction while still providing purchasers with lake access via the funnel. 78

Where zoning fails to protect the interests of other riparian owners on a lake, these owners can raise the doctrines of private nuisance and reasonable use to counter funnel developments. These common law doctrines, however, present problems of their own that limit their effectiveness in dealing with overdevelopment of lakes and ponds.

IV. Nuisance and Reasonable Use Doctrines as Remedies for Overdevelopment of Waterfront Property

The common law continues to play an important role in achieving and maintaining clean water environments in the United States. 79 In addition to zoning and land use regulatory requirements, lakeshore funnel development is subject to common law limitations. Lawsuits based on legal theories such as nuisance, trespass, negligence, abnormally dangerous activities, and interference with riparian rights have “filled the gaps” left by water control statutes and regulations. 80 Some riparian property owners who oppose funnel development projects on their lakes have turned to the common law theories of nuisance law and reasonable use of riparian rights for a remedy.

A. Reasonable Use of Riparian Rights

Generally, riparian rights stem from ownership of land abutting a waterway. 81 As fee simple owners of waterfront property, funnel developers have the same riparian rights other riparian owners enjoy. Riparian ownership carries rights and privileges in the abutting waterway, as well as limitations and obligations that limit riparian use. 82 Riparian common law doctrine restricts water use to the own-

78 See id.
80 See id.
81 Strictly speaking, rights stemming from ownership of land abutting a lake or pond carries littoral rights, while riparian rights stem from ownership of land abutting a stream or river. However, most courts and observers have merged the two terms in discussing waterfront development. Accordingly, this Comment uses the term riparian to mean ownership of land abutting lakes and ponds as well as rivers and streams.
82 See infra notes 85–90 and accompanying text.
ers of the land abutting the watercourse. Riparian rights are not common to citizens at large, but exist only as a right that flows from ownership of shoreline land.

Riparian uses are divided generally into two classes; natural and artificial uses. Natural uses are those that are absolutely necessary, such as quenching thirst and maintaining a household. Artificial uses, such as use for commercial profit and recreation, merely increase comfort and prosperity but are not essential. Common artificial uses include skating, fishing, swimming, and boating, in addition to development for commercial purposes. Riparian owners may use as much water as they need for natural purposes, regardless of how this use affects other riparian owners on the same body of water. An owner exercising riparian rights for recreation or commercial venture, however, cannot interfere with the rights of other riparians to the same body of water.

Because commercial development constitutes an artificial use of riparian land, a project cannot interfere with other riparian owner's rights. The reasonable use doctrine has emerged as the standard for determining the level of tolerable interference with the riparian owner's rights. Under the reasonable use doctrine, all riparian owners have rights to use the surface area of the lake, as long as their use does not burden another riparian owner's use unreasonably.


Id.

Id.

Id. “Without these uses both man and beast would perish.” Id.

Id.

See Kusler, Carrying Controls, supra note 1, at 20.

Id., 379 Mich. at 686, 154 N.W.2d at 483.

Id. at 686, 154 N.W.2d at 484.

Id.

Recent Cases, Surface Water Disputes in Ohio Will be Governed by the Reasonable-Use Rule Whereby a Landowner is Liable to Another Landowner Only When the Former's Harmful Interference with the Flow of Surface Water is Unreasonable—McGlashan v. Spade Rockledge Terrace Condo Development Corp., 49 CINN. L. Rev. 914, 915 (1980). The courts in this country have used three rules to adjudicate surface water disputes: the civil law rule, the common enemy rule, and the reasonable use rule. Id. According to the civil law rule, in its purest form, a riparian owner cannot interfere with another riparian owner's rights to the surface water without incurring liability for resulting damage. Id. The antithesis of the civil law rule is the common enemy rule, that allows a riparian owner to use his land and dispose of surface water without regard to the resulting effect on other riparian owners. Id. The reasonable use rule allows a riparian owner to make reasonable use of the surface water, even if such use interferes with the flow of surface water in a manner harmful to other landowners. Id. The reasonable use rule is most prevalent today, wherein a landowner incurs liability only when unreasonably causing harmful interference. See id.

For a discussion of the various ways states have attributed surface water rights to
The Michigan case of Thompson v. Enz sets forth general standards for examining funnel developments. In Thompson, the developers were owners of approximately 1,415 feet of frontage on a lake. The funnel development plan called for creation of 144 to 156 lots, only 16 of which would directly border the lake. The balance of the lots would have lake access by means of proposed canals that the developer would construct. The Michigan Supreme Court held that a funnel development project constitutes an artificial use that requires application of the reasonable use standard.

In holding that the funnel development plan constituted an unreasonable use, the Thompson court set out a number of factors to consider in applying the reasonable use standard. The trial court should examine the watercourse and its attributes, including its size, character, and natural state. The trial court should also examine the proposed use itself to determine its type, extent, necessity, effect on the quantity, quality, and level of the water, and the purposes of the users. Finally, the court must examine the proposed artificial use in relation to the beneficial and detrimental effects on the rights and interests of other riparian proprietors as well as those of the state.

Commercial profit is another factor courts may consider in evaluating funnel development cases. A funnel developer maximizes profits by giving all purchasers access to the water. Accordingly, commercial profit is the reason a funnel developer increases use of

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94 Thompson, 379 Mich. 667, 154 N.W.2d 473. Another leading case is Florio v. State, in which riparian lake owners were required to scale back the operation of a water skiing school on a lake. 119 So.2d 305, 310 (Fla. 1960). The Florida court held that “the use of lands which border on waters of a nonriparian lake for purposes of pleasure, recreation, and health is a use which requires a remedy on behalf of a riparian owner where there is unreasonable interference ... one riparian owner is not entitled to use the lake to the exclusion of other riparian owners.” Id. Thompson is considered the leading case where this reasonable exercise of riparian rights doctrine is applied to lakeshore development projects. E.g., Kusler, Carrying Capacity, supra note 1, at 20.

95 Thompson, 379 Mich. at 668, 154 N.W.2d at 474.

96 Id. at 686, 154 N.W.2d at 484. “Use for an artificial purpose must be (a) only for the benefit of the riparian land and (b) reasonable in light of the correlative rights of the other proprietors. It is clear in the case before us that the use made of the property by the defendants is for a strictly artificial purpose and must meet the test of reasonableness.” Id.

97 Id.

98 Id. Commercial development is an artificial purpose that must therefore meet the reasonableness criteria. See infra notes 100–02 and accompanying text.

99 Thompson, 367 Mich. at 686, 154 N.W.2d at 485. The public’s rights in inland lakes and streams within the state is discussed infra at notes 133–62 and accompanying text.


101 See supra notes 17–27 and accompanying text.
his riparian parcel. In applying the reasonable use analysis, one court emphasized that it will not tolerate lightly one riparian's commercial profit at the expense of another's enjoyment of riparian rights.\textsuperscript{102} The criteria set forth in \textit{Thompson} can thus be summarized as follows: courts should first give attention to the size, character, and natural state of the water course. Then, courts should consider the type and purpose of the proposed uses and their effect on the water course. Finally, courts should balance the benefit that would inure to the proposed user against the injury to the other riparian owners.\textsuperscript{103} While the specific issue of funnel development has not reached the appellate court level in states other than Michigan, courts in other states would probably apply a similar analysis that recognizes a reasonableness standard for use of riparian rights.\textsuperscript{104}

The reasonableness doctrine thus balances the parties' interests to determine whether a proposed use is reasonable. Lakeshore owners can use this doctrine to protect their individual riparian rights. Similarly, riparian owners may challenge a proposed development of riparian land based on the nuisance doctrine.\textsuperscript{105}

B. Nuisance Theory and Riparian Rights

Nuisance theory requires courts to explore whether a funnel development proposal is reasonable in much the same manner as if the challenge were based on unreasonable interference with riparian rights.\textsuperscript{106} Private nuisances, like the usurpation of relative riparian rights, are unreasonable interferences with the enjoyment of rights

\textsuperscript{102} \textit{See Pierce}, 35 Mich. App. at 128, 192 N.W. 2d at 369. \textit{Pierce} involved an action to enjoin a riparian owner with 373 feet of frontage on a small lake from digging a canal through their one riparian parcel to provide lake access to 90 lots immediately behind the lakeshore parcel. \textit{Id.} In determining that this use was unreasonable, the court noted that the proposed real estate development would overcrowd the lake for what appears to be a commercial exploitation only. We see no reason to deprive the present riparian owners of the enjoyment of the lake when the only reason for increasing the burden on the lake is merely the commercial profit of the owner of one riparian lot. \textit{Id.}


\textsuperscript{104} For a discussion of riparian land use, \textit{see} Note, \textit{Riparian Water Law–Lakeshore Developments, supra note 83; Comment, Public Recreation on Non-navigable Lakes and the Doctrine of Reasonable Use, 55 IOWA L. REV. 1064 (1970); Teclaff & Teclaff, \textit{supra} note 46; Recent Cases, \textit{supra} note 92, at 914; Kennebunk, Kennebunkport and Wells Water Dist. v. Maine Turnpike Auth., 71 A.2d 520 (Me. 1950); \textit{Florio}, 119 So. 2d at 310; Donaghey v. Croteau, 401 A.2d 1081 (N.H. 1979).

\textsuperscript{105} Any distinction between violation of relative riparian rights and nuisance as creating separate tests of reasonableness is tentative. Bartke & Patton, \textit{supra} note 4, at 1033.

\textsuperscript{106} \textit{See supra} notes 81–103 and accompanying text.
in real property.\textsuperscript{107} The common law approach to nuisance resembles the reasonableness determination, that is, balancing the utility of the proposed use against the potential of harm to others.\textsuperscript{108} In evaluating whether a particular use is burdensome to a neighbor's rights, some courts adopt nuisance theory terminology while others prefer to apply the reasonable use doctrine.\textsuperscript{109}

Courts may consider a variety of factors in determining whether an activity constitutes a nuisance, including: the challenged activity is not customary or suited to the area; the activity causes observable effects that most of us would find disagreeable, independent of whether such effects in fact harm the plaintiff; plaintiff's method of implementing the activity produces more disturbance than other available methods; or defendant began his activity after the plaintiff began the present use of his land.\textsuperscript{110} This private nuisance analysis employs factors that are similar to those set out in \textit{Thompson v. Enz}\textsuperscript{111} to evaluate development under the reasonable use doctrine.\textsuperscript{112} Accordingly, the two doctrines afford similar results.\textsuperscript{113}

As in riparian rights cases, nuisance actions are not confined to a single type of activity that overloads the water surface. Large numbers of people using a lake for general recreational purposes can constitute a nuisance.\textsuperscript{114} Riparian owners may use the lake personally or open up the entire surface of the lake to the public through their own private rights. Courts may, however, enjoin individual riparian owners' lake use as either unreasonable or as a nuisance to the extent that the use unreasonably impinges on the correlative rights of other riparian owners.\textsuperscript{115}

\textsuperscript{107} "A nuisance may be merely a right thing in the wrong place,—like a pig in the parlor instead of the barnyard." \textit{Euclid}, 272 U.S. at 388.
\textsuperscript{108} Courts apply this balancing determination on a case by case basis. For example, in \textit{Florio}, the court noted that "water skiing is not a nuisance per se. Normally it is a legitimate and wholesome pursuit. The chancellor found it to be a nuisance here because of the extent to which it was pursued under the circumstances delineated and determined." 119 So.2d at 310.
\textsuperscript{109} Bartke & Patton, \textit{supra} note 4, at 1033.
\textsuperscript{111} 379 Mich. at 686, 154 N.W.2d at 484.
\textsuperscript{112} See \textit{supra} notes 97–99 and accompanying text.
\textsuperscript{113} Private nuisance is defined as that which "by its continuous use or existence works annoyance, harm, inconvenience or damage to another landowner in the enjoyment of his property . . . [it is an] activity which results in an unreasonable interference with the use and enjoyment of another's property . . . ." \textit{Black's Law Dictionary} 1076 (5th ed. 1979). The definition of reasonable use theory states that "a riparian owner may make reasonable use of his water for either natural or artificial wants. However, he may not so use his rights so as to affect the quantity or quality of water available to a lower riparian owner." \textit{Id.} at 1139.
\textsuperscript{114} Bartke & Patton, \textit{supra} note 4, at 1036.
\textsuperscript{115} \textit{Id.}
C. Shortcomings of the Reasonable Use and Nuisance Doctrines as Remedies for Overdevelopment

Nuisance and reasonable use law are effective causes of action under which a riparian owner may bring suit to stop a funnel development. This Comment suggests, however, that in stressing the injury to the individual riparian owner’s interests, the fundamental bases of these doctrines fail to address adequately a larger picture that includes the public interest. This failure raises legal and practical considerations that limit the effectiveness of these doctrines.

For example, individual riparian owners will likely have economic difficulty standing alone in a suit against a developer. Any challenge to a funnel development in court is certain to incur prohibitively high expenses. The costs of conducting lake quality and carrying capacity studies alone are enormous, and an insufficient economic war chest could prove fatal to a riparian owner’s quest for a judicial remedy. Even where the riparian owners form a private lake association to bring suit, litigation expenses mount quickly and may bankrupt the association’s resources. The uncertainty of nuisance and reasonable use litigation exacerbates the need for adequate funding. The factors set forth in *Thompson v. Enz* indicate that a court must weigh a number of subjective factors in reaching its decision. Determining reasonableness in common law involves a complex balancing of numerous facts and factors, many of which are dependent on intangible criteria. The results are therefore unpre-

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116 The public has rights in many inland waterways held in trust by the state that may be violated by inappropriate funnel development. *See infra* notes 133–159 and accompanying text.
118 *See supra* note 28 and accompanying text.
119 Lake associations have standing to bring such suits. *See, e.g., Three Lakes Ass’n,* 91 Mich. App. at 371, 285 N.W.2d at 300.
120 *See infra* notes 122–24 and accompanying text.
121 *See supra* notes 97–102 and accompanying text.
122 As one court put it,
not every intentional and substantial invasion of a person’s interest in the use and enjoyment of land is actionable . . . life in organized society . . . involves an unavoidable clash of individual interests. Practically all human activities . . . interfere to some extent with others or involve some risk of interference . . . [E]ach individual in a community must put up with a certain amount of annoyance, inconvenience and interference, and must take a certain amount of risk in order that all may get on together . . . Liability is imposed only in those cases where the harm or risk to one is greater than he ought to be required to bear under the circumstances.
dictable. This uncertainty reduces the chances for settlement, an option that could save both sides considerable litigation expenses. Proponents of environmental causes often enjoy monetary and manpower support from various national and local organizations, such as the Conservation Law Foundation, that are dedicated to preserving common resources. However, a funnel development suit based on nuisance or unreasonable use focuses necessarily on preserving the lake for the use and enjoyment of the privileged few who are fortunate enough to own lakeside property. This focus on private rights rather than resources common to the public may dampen enthusiasm and inhibit valuable economic support from otherwise sympathetic environmental groups. Such organizations that have the resources to provide both financial and technical assistance are not likely to join a fight to preserve an exclusive recreational water playground.

Similarly, courts may be reluctant to find for riparian owners who want to prevent more people from enjoying the benefits of lakeshore access. Instead, courts may favor a development that provides multiple owners with water access to an otherwise inaccessible lake. In

123 "Judicial decisions often conflict. Failure of state courts to make definitive settlements regarding reasonableness at the appellate level adds to the time and expense of litigation and prolongs the uncertainty that decisive judicial action would remedy." Bartke & Patton, supra note 4, at 1062.

124 Developers and riparian owners involved in a nuisance or reasonable use action each incur large legal expenses. Developers are, however, often in a financial position superior to opposing riparian owners and would be more likely to survive a war of attrition. On the other hand, the threat of prolonged litigation could force developers to settle because of financing commitments that frequently are tied to a timetable. Prolonged litigation would likely disturb such a timetable and accordingly could upset financial backing for a development project. Bartke & Patton, supra note 4, at 1021-23.

An important constraint in any real estate project is financing. The nature, availability and terms of financing determine the economic feasibility and profitability of any project . . . . Since prolonged litigation to determine the rights of the parties may mean disaster for the project, it would behoove those who want to develop and market recreational land to understand legislative restrictions and other correlative rights of riparian owners.

Id.

essence, the riparian owners may appear to be maintaining an elitist retreat that excludes others from sharing their lake. A court, weighing the riparian owner’s elitist interests against the interests of those who wish to increase lake access, may be inclined to favor the latter. The reasonable use and nuisance doctrines’ focus on the injury to the individual riparian owner rather than the damage to a public resource underscores this elitist perception.126

Accordingly, the doctrines of nuisance and reasonable use fail to take into account the public’s interest in preserving lakes as valuable public resources. This failure limits these doctrine’s effectiveness by focusing on the harm to individual owners, and thus alienating important potential sources of support within the community. The public trust doctrine represents a viable alternative common law argument that avoids these pitfalls, properly considering the public’s interest in enjoining improper funnel development on public trust lakes. Under the public trust doctrine, the public’s interest in preserving public trust lands is the courts’ primary concern.

V. THE PUBLIC TRUST ALTERNATIVE

The modern public trust doctrine currently is in a state of expansion. Since 1970, when Professor Joseph Sax published his seminal article on the subject,127 courts have developed a substantial body of case law that applies the public trust doctrine to land use management issues.128 A significant body of legal commentary on the subject has also emerged.129 Recent judicial expansion of the public trust

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126 See supra note 116 and accompanying text.
doctrine has not gone uncriticized. Nonetheless, courts generally have been receptive to the public trust doctrine's application in an increasing range of land use cases.

Public trust commentators have documented thoroughly the historical development of the public trust doctrine from ancient Roman law, through English common law, to its modern applications. This Comment therefore does not attempt to restate this history. Nor does this Comment join the debate over the benefits and disadvantages of an expanded public trust doctrine. Rather, this Comment discusses how the public trust doctrine is a viable way for riparian owners to prevent developers from creating funnel development projects on lakes that are vulnerable to damage from excessive development.

A. The Public Trust Doctrine

It is a basic proposition, well settled by usage, statute, and judicial decision, that navigable waters belong to the public and are held in trust by the state for the public. This proposition first manifested itself in this country in the Massachusetts Colonial Ordinance of 1641-47, which declared that bodies of water in excess of ten acres were the property of the public at large for fishing or fowling. The

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Public Trust]. This list is intended to be representative only and is not an exhaustive compilation of public trust doctrine discussion.

130 "The difficult problems that beset the development and implementation of modern environmental and natural resources law are no longer aided by resort to a legal doctrine, such as the public trust." Lazarus, Changing Conceptions of Property and Sovereignty in Natural Resources: Questioning the Public Trust Doctrine, 71 IOWA L. REV. 631, 702 (1986); see Huffman, Trusting the Public Interest to Judges: A Comment on the Public Trust Writings of Professors Sax, Wilkinson, Dunning and Johnson, 63 DEN. U. L. REV. 565 (1986).

131 Approximately one hundred cases involving the public trust doctrine were reported between 1970 and 1986. Lazarus, supra note 130, at 644.

132 For a thorough historical documentation of the public trust doctrine, see Sax, supra note 127, at 472-91.

133 Courts have broadened considerably the definition of "navigability" in its application to the public trust doctrine. Under that doctrine, "navigability" means any body of water of sufficient size to sustain transport of very small watercraft, even pleasure boating. For a discussion of navigability and the public trust doctrine, see Stevens, supra note 129, at 201-10.


135 Ancient Charters and Laws of the Colony and Province of Massachusetts (1814), quoted in J. Whittlesey, LAW OF THE SEASHORE, TIDEWATERS AND GREAT PONDS IN MASSACHUSETTS AND MAINE XXV (1932).
Ordinance also granted free access across private property to exercise these public rights. Similar ordinances protected freshwater lakes in other parts of New England.

As other states entered the Union, they too became entitled to the land under their navigable waters, subject to the public trust. Most states continue to hold their inland lakes in trust for the public. In at least one such public trust state, however, a court has allowed the transfer of a public trust lake to private ownership. Accordingly, riparian owners raising the public trust doctrine must first establish whether the state or a private party holds the title to the submerged lands, and whether the owner holds the land subject to the public trust.

In its earliest and purest application, the public trust doctrine prevented a state from granting title to publicly held lands to private parties and thus divesting the public of common rights. In 1892, the United States Supreme Court created the framework upon which the modern public trust doctrine is based. In Illinois Central Railroad v. Illinois, the Court determined that a state cannot grant lands to private citizens that it holds in trust for the public, nor can the state divest itself of its fiduciary responsibility for that land. Illinois Central has endured as the seminal case that establishes the foundation of the modern public trust doctrine. Relying upon Illinois Central, courts from Massachusetts to California have justified an assortment of decisions that have protected natural resources from degradation or destruction under the public trust doctrine.

136 Id.
137 Stevens, supra note 129, at 199.
139 See Lazarus, supra note 130, at 647-48.
140 See Lynnfield v. Peabody, 219 Mass. 322, 106 N.E. 977 (1914). In Lynnfield, the Massachusetts Supreme Judicial Court acknowledged the colonial General Court's grant of a 500 acre pond to private hands in 1635. Id. Because the private party received the grant prior to enactment of the Colonial Ordinances of 1641-1647, the Lynnfield court acknowledged the grant as valid. Id. at 325, 106 N.E. at 980. "And the weight of the authority is that under the original rule of the common law, and before the common law of Massachusetts was declared by the colonial ordinance to be otherwise for the future, ponds like this might by a proper grant be made the subject of private property." Id.
141 Courts generally are reluctant to impose a fiduciary duty where lands are held in a less proprietary fashion. See Sierra Club v. Dep't of the Interior, 376 F. Supp. 90, 93 (N.D. Cal. 1974) (addressing the federal government's fiduciary obligation to manage federal lands).
142 Arnold v. Mundy, 6 N.J.L. 1 (1821).
144 Id.
145 Professor Sax declared Illinois Central to be the "lodestar" of the modern public trust doctrine. Sax, supra note 127, at 489.
146 Huffman, supra note 130, at 565.
The public trust doctrine's central premise is that fiduciary duties limit how a state may dispose of and manage public trust resources. The state holds those resources in trust for the public and must dispose of or manage those resources in a manner consistent with that trust.\(^{147}\) "The public trust...is an affirmation of the duty of the state to protect the people's common heritage of streams, lakes, marshlands and tidelands, surrendering that right of protection only in rare cases when the abandonment of that right is consistent with the purposes of the trust."\(^{148}\) The state thus must act as public trustee of these resources, and citizens may sue to force the state to fulfill its fiduciary responsibilities.\(^{149}\)

Submerged lands were the subject of the original public trust primarily because fishing and navigation were vital to the commerce of an emerging nation.\(^{150}\) Private parties that held submerged lands could not use the lands in a way that would impede these critical commercial activities.\(^{151}\) Navigation and fishing for commerce thus were the two principal bases for using the public trust doctrine to protect inland waterways in the 18th and 19th centuries.\(^{152}\)

Modern courts, however, have extended the public trust doctrine's reach beyond its original narrow goal of protecting commerce.\(^{153}\) Today, a primary application of the public trust doctrine is to protect inland waterways from environmental degradation.\(^{154}\) States have a fiduciary duty to preserve public trust lands in their natural state for use by the public.\(^{155}\) Any use that will alter the land from its

\(^{147}\) Id. at 567.

\(^{148}\) Nat'l Audubon Soc'y, 33 Cal. 3d at 441, 658 P.2d at 724, 189 Cal. Rptr. at 361 (Mono Lake, California, is part of the public trust, and therefore the state cannot allow injurious diversion of the tributaries that replenish the lake's water supply).


\(^{150}\) Illinois Central, 146 U.S. at 452.

\(^{151}\) Id.

\(^{152}\) Id.

\(^{153}\) "Illinois Central" emphasized the flexibility with which the public trust doctrine should be interpreted, and thus set the tone for its further development by the individual states. Massachusetts Public Trust, supra note 129, at 848. See also Nat'l Audubon Soc'y, 33 Cal. 3d at 434, 658 P.2d at 714, 189 Cal. Rptr. at 356 (the trust purpose had changed along with public needs and values).


\(^{155}\) Professor Sax outlines three types of restrictions imposed upon the states as trustees of public lands. Sax, supra note 127, at 477. The trust property must be used for a common purpose and available for use by the general public. Id. The property may not be sold. Finally, the land must be maintained for particular types of uses. Id. A breach of these restrictions constitutes an impairment of the public trust which is actionable against the state. See id.
natural state is subject to challenge based on the public trust doctrine. In the earliest application of the doctrine, the use had to completely change the public trust land from its natural state to another state that completely frustrated its traditional use. Subsequent court decisions, however, have relaxed this complete frustration requirement. This judicial relaxation of the complete frustration requirement is consistent with the flexibility indicated in the dicta of the Illinois Central opinion.

Accordingly, a use need not change completely the nature of the public trust land. In striking down a planned ski development in Gould v. Greylock Reservation Commission, the Massachusetts Supreme Judicial Court emphasized in its analysis a number of factors that indicated incompatibility of the use with its trust purpose, including the development's interference with the area's ecology, the degree to which private developers would profit financially from the development, and the limitation of the development's use to skiers. The Greylock Reservation court struck down the development as an intrusion upon the public trust land's present use, without requiring a showing that the development would frustrate existing uses completely. According to this analysis, a development can violate the public trust merely if the development is incompatible with the principles established by the public trust doctrine.

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156 "It is thought to be incumbent upon the government to regulate water uses for the general benefit of the community and to take account thereby of the public nature and the interdependency which the physical quality of the resource implies." Id. at 485.

157 In this antiquated view of the public trust doctrine, a proposed use violated the public trust only if the trust land's traditional use was no longer possible. Sax, supra note 127, at 477. Professor Sax's classic example of this is a comparison between building a marina or a land fill project on San Francisco Bay. Id. The marina would still allow the Bay its traditional maritime use, while a trash land fill would prevent this traditional use in the filled area. Id. Thus the land fill would violate the public trust while the marina would not. Id.

158 See, e.g., Nat'l Audubon Soc'y, 33 Cal. 3d at 419, 658 P.2d at 709, 189 Cal. Rptr. at 346 (diversion of water flowing to public trust lake affects the public trust, despite the use of the diverted water for traditional uses of irrigation, industry, and personal consumption); Gould v. Greylock Reservation Comm'n, 350 Mass. 410, 215 N.E.2d 114 (1966) (creating a ski area on public trust lands affects the public trust, despite that the intended use of the lands included public recreational use and access).

159 "The bed or soil of navigable waters is held by the people of the State in their character as sovereign in trust for public uses for which they are adapted." Illinois Central, 146 U.S. at 457-58 (dicta). This language is thought to emphasize the flexibility of the public trust doctrine. Massachusetts Public Trust, supra note 129, at 848.


161 Id. at 410, 215 N.E.2d at 114.

162 See id.; see also Massachusetts Public Trust, supra note 129, at 875.
B. Applying the Public Trust Doctrine to Funnel Development

A court evaluating a funnel development project under the public trust doctrine may apply an analysis similar to the analysis applied in Greylock Reservation Commission. Funnel development projects can interfere with the lake’s ecology through overintensive recreational use of the lake, as well as through pollution common to lakeside residential developments. The funnel developer stands to benefit financially from the increased profits that accompany the sale of water access with each dwelling unit. Finally, this form of development typically does not increase general public access to the lake, and therefore would result in private gain at public expense. A funnel development that will lead in time to deterioration and destruction of the lake is thus incompatible with the principles established by the public trust doctrine.

The state has a fiduciary obligation to maintain the trust lands for the public. The public trust doctrine represents a judicial effort to remedy a perceived failure of modern legislative action to protect needs other than those expressed by private parties with immediate, specific interests in developing the land. If the state allows deterioration of the lake by permitting overuse and overdevelopment, then the state is creating an actionable breach of the public trust. Therefore, a riparian owner opposed to a funnel development may name the state as a defendant in litigation based on the public trust doctrine.

160 See supra notes 27–47 and accompanying text.
161 See supra notes 16–26 and accompanying text.
162 See supra note 155 and accompanying text.
163 Professor Sax recognized that the public trust doctrine provides a justifiable means for the courts to redress shortcomings in the legislative approach to public trust lands. Sax, supra note 127, at 521. “The ‘public trust’ has no life of its own and no intrinsic content. It is no more—and no less—than a name courts give to their concerns about the insufficiencies of the democratic process.” Id.
164 Standing to sue the state for violations of the public trust has not been a problem. Lazarus, supra note 130, at 659. Recent cases reflect a liberalization in American courts of the requirements for achieving standing in environmental cases. Id.
165 Riparian owners can also name private developers in public trust litigation. However, the developer’s use of the riparian land is limited by the reasonable use doctrine, and action against the developer would proceed more properly on that basis. For a discussion of the reasonable use doctrine, see supra notes 81–105 and accompanying text.
Historically, the public trust doctrine prevented a state from releasing the public trust lands into private hands. The rationale for this restriction was that in private hands, the public trust lands could be converted to uses that exclude the uses the public currently enjoys. In contrast, the state does not convey lakes directly to funnel developers. The title to the submerged lands remains with the public as part of the public trust, and the developer uses the submerged lands for its private purposes. However, the effect of a state allowing a funnel development project is similar to an actual conveyance of title to private hands. An adverse environmental impact can occur, despite the fact that the developers do not obtain a fee simple interest in the submerged lands. Furthermore, the public, due to diminished lake access and enjoyment, suffers equally whether the cause is a permitted funnel development project or a grant in fee simple. Where the public trust is endangered, the fact that no conveyance to private hands actually took place should have no bearing on the applicability of the public trust doctrine. In either case, the state has damaged the public trust corpus and thus breached its fiduciary duty to preserve public trust lands for the public. Accordingly, under this analysis, the state should be liable to the public as beneficiaries of the public trust under the public trust doctrine, even where it did not actually convey the property to private hands.

Some observers have noted that the expanding public trust doctrine presents a threat to riparian owners. Where states have asserted the public trust to gain water access easements for the public over private land, this is an accurate observation. Waterfront riparian owners would lose their exclusive rights to enjoy the waterfront ownership benefits if the state imposed public access easements to the water over privately held property. Protecting "environmental values by means of the public trust can be achieved in some cases

171 Courts are most likely to consider legislative action to be for a private purpose, and thus impermissible, when the state places submerged lands into private hands and the future use will exclude the public. Comment, The Public Trust Doctrine in Maine's Submerged Lands: Public Rights, State Obligation and the Role of the Courts, 37 ME. L. REV. 105, 143 (1985).

172 One application of the public trust doctrine employed in Massachusetts incorporates the common law concept of prior public use. Massachusetts Public Trust, supra note 129, at 884–85. Prior public use is a principle of eminent domain that says that legislative action is required to change the public use of public lands to another, inconsistent, use. Id. "The implementation of public trust concepts through the prior public use doctrine . . . is a . . . well-established doctrine which, like the public trust doctrine itself, focuses on the uses of land and acts defensively to protect existing uses . . . ." Id. at 884.

173 See generally, Comment, supra note 149, at 658.
only at the expense of a waterfront landowner's development prerogatives." The public trust doctrine can prevent states from allowing developers to commercially develop riparian property and overextend lake use. For riparian owners who oppose a funnel development, the public trust doctrine provides a legal basis to stop this threat to the lake's environmental balance. The public trust doctrine is thus an asset to the riparian owner who wishes to maintain the status quo, and a threat to riparian owners with commercial development plans for their riparian property.

Private owners who oppose funnel developments should emphasize the harm to the public's interests rather than the harm the riparian owners will suffer personally because of the funnel development. The public trust argument shifts the focus of litigation from a comparison of private interest harms to a focus on the harm to the public's interests in the public trust lands. Traditionally, private landowners' tangible expectations have enjoyed recognition greater than legitimate public expectations. The greater recognition exists because individual landowners have asserted their rights expressly in the legal process. A riparian owner raising the public trust doctrine, however, shifts the court's focus from competing private interests to the public's expectation of ecosystem stability and protection in public trust lands.

The public trust doctrine meets its strongest opposition where the state attempts to acquire rights in privately held land and rededicate it to public use. Under this application of the public trust doctrine, the state asserts that it never had a right to convey public trust land

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174 Id. at 634.
175 In State v. Superior Court (Fogerty), the court avoided any discussion of private burdens. 29 Cal. 3d at 240, 625 P.2d at 256, 172 Cal. Rptr. at 713. The majority's opinion focused on the potential harm from shorezone degradation. Id. at 244-47, 625 P.2d at 259-60; see Comment, supra note 149, at 649.
176 Comment, supra note 149, at 658.
177 See id.
178 In Nollan v. California Coastal Commission, the California Coastal Commission had granted owners of a seaside bungalow the right to demolish and replace the structure on the condition that the owners grant the public an easement over the property to an adjacent public beach. 55 U.S.L.W. 5145 (U.S. June 26, 1987) (86-133). The United States Supreme Court acknowledged that states have the power to condition land use permits upon a concession of property rights by the owner in order to further a legitimate state interest. Id. at 5147. The Court also acknowledged that the Commission's goal of creating a continuous strip of publicly accessible beach along the coast may be a good idea. Id. at 5149. The Court held, however, that the condition violated the Takings Clause of the Fifth Amendment, noting that "[w]hatever may be the outer limits of legitimate state interests' in the takings and land use contexts, this is not one of them" and referring to the plan as "an out-and-out plan of extortion." Id. at 5148.
into private use.\textsuperscript{179} Any private holder of public trust land thus holds the land subject to the state's fiduciary interest, and the state is justified in claiming easements over the privately held land.\textsuperscript{180} These public trust claims by the state raise constitutional questions concerning public taking of private lands without compensation.\textsuperscript{181}

Riparian owners opposed to funnel development, however, need not address the taking issue at all. Instead, the riparian owner's public trust argument should be that the state fails to fulfill its fiduciary duties when it allows environmentally threatening funnel development projects to proceed.\textsuperscript{182} The public trust doctrine as applied to funnel development would not demand the return to public ownership of any portion of the developer's private riparian rights. There would be no constitutional issue of taking because developers hold the riparian rights subject to the public trust as well as the government's fiduciary duty to protect the lake. While the public trust doctrine prevents states from permitting developers to damage the trust through overintensive use, nothing in the doctrine precludes developers from using public lakes at a historically nonconsumptive level. Because developers do not lose any rights that owners of the particular riparian parcel enjoyed historically, no taking which requires compensation occurs.\textsuperscript{183} Developers may continue to use their rights of riparian ownership at a stable, existing level of intensity, and there will be no taking.

There is, however, one significant obstacle that may prevent a riparian owner from raising the public trust doctrine successfully in opposition to funnel development. One of the criteria for the public trust doctrine is that the land must be available for use by the

\textsuperscript{179} Just Whose Land Is It--Anyway?, NAT'L L.J., Dec. 27, 1986, at 1, col. 3.
\textsuperscript{180} Id.
\textsuperscript{181} See generally Nollan, 55 U.S.L.W. 5145. A major factor promoting the use of the public trust doctrine as a means to achieve natural resource goals has been the argument that the doctrine creates no takings problems. Lazarus, supra note 130, at 648. The public trust doctrine reflects the assertion of public rights that preexist any private property rights in the affected resource. Id. Its application, therefore, cannot be deemed a taking of private property. Id.
\textsuperscript{182} As Professor Sax notes, when a state holds a resource which is available for the free use of the general public, a court will look with considerable skepticism upon any governmental conduct which is calculated either to reallocate that resource to more restricted uses or to subject public uses to the self-interest of private parties. Sax, supra note 127, at 490.
\textsuperscript{183} For a discussion of compensation issues on public property, see Corker, Thou Shalt Not Fill Public Waters Without Public Permission—Washington's Lake Chelan Decision, 45 WASH. L. REV. 65 (1970).
public.\textsuperscript{184} With regard to a typical inland lake, however, private parties may hold the entire lake perimeter, affording no public access to the water.\textsuperscript{185} This private perimeter ownership excludes the public from enjoying lake access, despite the fact that the lakes themselves are owned by the public and held in trust by the state.\textsuperscript{186} In the strict application of the public trust doctrine, a lake with no public access cannot be the object of a public trust action.\textsuperscript{187}

Denying application of the public trust doctrine to a particular lake because there is currently no public access, however, would mean an abandonment of the public's right to use the lake in perpetuity. The fact that there is presently no public access does not justify denying the lakes this protection. The public trust doctrine presents a vehicle for requiring the state to protect the public's lakes. The purpose of the public trust doctrine is to protect the trust lands for all present and future uses.\textsuperscript{188} Even where no present public access is available currently, trust lands should be protected for future generations to enjoy if and when access becomes available.\textsuperscript{189} If public needs demand that public trust lakes be protected despite a present lack of public access, then the public trust doctrine should apply.\textsuperscript{190} Denying private perimeter lakes public trust protection may result in irreversible damage to the entire lake environment, damaging the water-based ecosystem through processes such as eutrophication, and denying future generations the opportunity to use environmentally sound lakes.\textsuperscript{191} By applying the public trust doctrine to private perimeter lakes, courts can assure that these lakes are not abused and are preserved until such time as the public can acquire the desired public access.

\textsuperscript{184} Sax, \textit{supra} note 127, at 477.
\textsuperscript{185} See \textit{Canobie Lake Shores Not For General Public, supra} note 18.
\textsuperscript{186} See \textit{supra} notes 147–50 and accompanying text.
\textsuperscript{187} See Sax, \textit{supra} note 127, at 477.
\textsuperscript{188} See \textit{supra} notes 147–50 and accompanying text.
\textsuperscript{189} In at least two states, Maine and New Hampshire, funds are becoming available with which the states will purchase riparian land from private owners for the purpose of providing public access. The State of Maine is considering spending $15 million over five years to acquire riparian lands to be used to provide public access to lakes. \textit{DRAFT PROPOSAL, supra} note 67. New Hampshire is also planning to spend large amounts of money to acquire riparian parcels of land that become available. \textit{Canobie Lake Shores Not For General Public, supra} note 19.
\textsuperscript{190} The law regarding the public use of land held in part for the benefit of the public must change as the public needs change. R. CLARK, \textit{1 WATERS AND WATER RIGHTS} 202 (1967).
\textsuperscript{191} Furthermore, as one commentator has noted, the old objective of obtaining the most widespread use of trust lands may interfere with the trust purpose of ecological preservation. “This conflict between democratization and preservation may require a redefinition of resource management goals.” \textit{Comment, supra} note 149, at 653 n.114.
If riparian owners cannot persuade a court to forego the public access requirement, these owners should consider granting a limited easement or dedication to the public for use of the lake. The riparian owners could form an association to set guidelines for public use so as to make the public use as unobtrusive as possible, limiting such variables as the number of users and hours of use. These owners could set aside funds to administer the established guidelines. This option, however, could prove expensive. Alternatively, the owners could turn over access point management to the local municipality, who could be bound contractually to abide by the association-established guidelines for use.

Some riparian owners who wish to maintain exclusive lake access may reject this public access alternative. Creating even a limited public access point may, however, satisfy the public trust doctrine's access requirement. Furthermore, such a gesture could diffuse any resentment from the local public toward the current individual owners of lakeshore property and help marshal support in opposing the funnel development. Also, rather than endure funnel development projects that would increase significantly the number of owners with riparian rights and dilute the current ownership's control of the lake, riparian owners may prefer the opportunity to regulate lake use. By choosing this option, the riparian owners can maintain some control over the increased recreational use while providing the public access courts may require to bring a public trust doctrine action.

Riparian owners may have more success under the public trust doctrine when developers propose funnel development on smaller or relatively unstable lakes. On large lakes, a funnel development project will likely have a smaller cumulative impact and therefore be less likely to endanger the public trust. On the smaller, more fragile lakes, however, even a single funnel development project can affect significantly a lake's condition.

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192 See Kusler, Carrying Controls, supra note 1, at 18.
193 Fears of public access to the water are not unfounded. Vandalism, rowdism, and wear and tear can disturb riparian owners. Such destructive activities led owners on Canobie Lake in New Hampshire to close their lake's only public access point. Canobie Lake Shores Not For General Public, supra note 19.
194 See supra notes 184–87 and accompanying text.
195 For a discussion of a lake's carrying capacity, see supra note 28 and accompanying text.
196 However, this is not to say that riparian owners on a large lake would be estopped from raising the public trust argument. In State v. Superior Court (Fogerty), the California court permitted the public trust argument despite the fact that Lake Tahoe may not have needed urgent public protection because of its size. 29 Cal. 3d at 247, 625 P.2d at 260, 172 Cal. Rptr. at 717. Any adverse impact on the public trust will suffice for a cause of action. Id.
Some commentators have argued that the public trust doctrine is unnecessary because the states, through their police powers, preserve natural resources adequately. In many cases, the state does an admirable job of protecting natural resources. Nonetheless, the fact remains that developers are constructing funnel development projects that will have a present and future detrimental effect on the trust lakes on which they are built.

Riparian owners opposed to funnel development need not turn to the public trust doctrine where the state exercises truly protective police powers over the public trust lakes. These riparian owners need the public trust doctrine, however, where the state police power fails to protect these valuable resources. One recent commentator criticized the doctrine as "a romantic step backward toward a bygone era at a time when we face modern problems that demand candid and honest debate on the merits, including consideration of current social values and the latest scientific information." Unfortunately, the governmental bodies charged with undertaking the factfinding and evaluative process are all too often unable to provide the requisite time and knowledge, with permissive overdevelopment as the unfortunate result.

VI. CONCLUSION

Funnel development projects allow a developer to capitalize on the expanding market for vacation homes with water access. As prices for waterfront parcels rise, fewer purchasers can afford single family lakefront homes. A typical funnel development involves a developer who purchases a small riparian parcel and a much larger parcel in the backland, builds multiunit dwellings on the backlot, and gives each purchaser riparian rights to use the lake through the smaller lot’s funnel. Funnel development projects enable these purchasers to acquire houses with riparian access, and yield significant profits for developers.

Funnel developments, however, can have significant detrimental effects on lakes. Funnel developments can cause serious environmental degradation through increasing the intensity of recreational use and by introducing various pollutants to the waterway. This degradation can cause an irreversible decline in water quality, ac-

197 See Lazarus, supra note 130, at 674–83.
198 See supra notes 51–54 and accompanying text.
199 Lazarus, supra note 130, at 715–16.
compounded by declining populations of fish and wildlife. Ironically, a lake’s beauty and health are sometimes destroyed by the commercial development they attract.

The public trust doctrine represents an important common law argument against funnel development. By permitting funnel development on environmentally sensitive lakes, the state violates its fiduciary obligation to maintain public trust lands. Riparian owners can invoke the public trust doctrine and shift the focus from their own individual injuries to the harm that states permit developers to inflict upon public trust lands. At a time when inadequate protection from development pressure permits public resource deterioration, the public trust doctrine will allow the courts to enforce the state’s fiduciary obligations and protect both public and private interests in lake preservation.