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The Riparian Right of Streamflow Protection in the Eastern States

Peter N. Davis *

INTRODUCTION

Increased demand for water by irrigators, industry, public water systems and power plants raises the problem of protecting minimum flows in streams for fish and wildlife habitat, recreational uses and waste assimilation capacity. Streamflows vary throughout the year. In the eastern states, flows tend to peak in the spring and fall and to reach low levels in late summer.1 Late summer is the time when irrigation and public water system diversions tend to peak. On streams with low base flow contributions from groundwater, flows may be inadequate to provide water for both consumptive diversions and for instream uses.2

While this competition between consumptive and instream uses has received attention in the western states for several years,3 only recently has it begun to receive more

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2. The situation in Missouri probably is typical. See Missouri Instream Flow Requirements, supra note 1, at 71-92.

than minimal attention in the eastern states. Minimum stream flows for instream uses can be protected under either the riparian doctrine or diversion permit statutes. Most of the 36 eastern states still rely on the riparian doctrine to allocate water between users. Some have enacted comprehensive diversion permit statutes which replace riparian rights. This article analyzes the extent to which the riparian doctrine can be employed to protect minimum streamflows for purposes of maintaining fish and wildlife habitat, recreational use capacity and waste assimilative capacity of watercourses in the eastern states.

The riparian doctrine provides that each owner of land abutting on a stream is entitled both to continuation of streamflow to his land as it flowed in a state of nature and to make a reasonable use of that water. Nonriparians do not have a right to use water in a stream. The reasonableness of that use is determined by the character of the stream from which the water is diverted, the nature and location of the

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5. The Eastern states encompass all states located along the west bank of the Mississippi River and to the east.


7. Protection of minimum stream flows under diversion permit statutes is discussed in the articles cited supra at note 6.

8. The riparian doctrine was first formulated in its modern form in Tyler v. Wilkinson, 4 Mason 397, 24 F. Cas. 472 (C.C.D.R.I. 1827). Since that time nearly 3,000 decisions employing the riparian doctrine have been published. P. Davis, Unpublished Research, Summer 1975. See, e.g., Bollinger v. Henry, 375 S.W.2d 161 (Mo. 1964); Harris v. Brooks, 225 Ark. 436, 283 S.W.2d 129 (1955).

claimant riparian’s use, the degree to which upstream riparians are precluded from making uses in order to make water available to claimant riparian, and the nature and location of the upstream and downstream riparians’ uses.  

The riparian doctrine contains an internal inconsistency since it is frequently impossible both to maintain natural flow and to allow riparians to make reasonable uses, because the latter either alters flow patterns or consumes water. Because of that inconsistency, courts have been forced to emphasize either the natural flow or the reasonable use theories of the riparian doctrine.

The natural flow theory provides that every riparian is entitled to the natural flow of the watercourse in both quantity and quality, subject only to the domestic uses of upper riparians. His riparian right is violated by any use or diversion which diminishes the flow past his land. It is irrelevant whether he actually is injured by the diminution. The diminishing of the flow in itself affords the lower riparian a cause of action against the diverting riparian unless the water is being used for domestic purposes, in which case the diverter is free to take as much of the water as he needs.

The reasonable use theory allows each riparian to use and divert the water in quantities which are reasonable, taking into consideration the size and nature of the body of water and the needs of other riparians. It is a comparative reasonableness theory. The courts maintain that each riparian is entitled to make reasonable use of the flow and that, if the lower riparian does not suffer any actual damage, he cannot have the diversion enjoined. Reduction in flow is characterized as damnum absque injuria—harm without injury. However, no riparian is entitled to take all of the

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10. See, e.g., Harris v. Brooks, 225 Ark. 436, 283 S.W.2d 129 (1955); Evans v. Merriweather, 4 Ill. (3 Scam.) 492 (1842).


On the need for injury in order to have a cause of action under the reasonable use theory, see Gehlen v. Knorr, 101 Iowa 700, 70 N.W. 757 (1897); Stratton v. Mt. Hermon Boys School, 216 Mass. 83, 103 N.E. 87 (1913).
water in a stream to the injury of another riparian.\textsuperscript{13}

Over the last 100 years, most courts in the United States have elected to emphasize the reasonable use aspect of the doctrine,\textsuperscript{14} although that election is not unanimous.\textsuperscript{15} Most cases discussing the riparian doctrine involve conflicts between diverters, or between diverters and mills. Relatively few involve private recreational use by riparians, such as boating and fishing. None involve private maintenance of fish and wildlife habitat. In spite of the sparcity of relevant case precedent, it is clear that riparians have a right to make recreational uses of watercourses on which their lands abut and that that right is as much entitled to protection as consumptive uses of water. Although riparians have a right to discharge wastes to a reasonable extent, provided a nuisance is not created, no cases protect the assimilative capacity of the stream which that rule would seem to require.

The following sections discuss various aspects of streamflow protection. They are divided into four groups. The first group of sections examines the law of protecting the level of lakes and reservoirs. They involve court recognition of private recreational uses under the riparian doctrine. The second group of sections examines cases dealing with protecting mills from alterations in streamflows or reductions in millwheel heads and with protecting municipal water supplies from reductions in flow. They involve protection of nonrecreational instream uses; they are analyzed only for their value as recognizing a right to protection of stream-

\begin{footnotes}
\footnotetext[14] {See, e.g., Harris v. Brooks, 225 Ark. 436, 283 S.W.2d 161 (1955); Parker v. American Woolen Co., 195 Mass. 591, 81 N.E. 468 (1907); Merriwether v. City of Worcester, 110 Mass. 216 (1872); Bollinger v. Henry, 375 S.W.2d 161, (Mo. 1964). While no one has counted the number of cases and jurisdictions emphasizing either the natural flow theory or the reasonable use theory, a count of riparian rights cases dealing with water pollution confirms the opinion that the reasonable use theory predominates. Davis, \textit{Theories of Water Pollution Litigation}, 1971 Wis. L. Rev. 738, 783, app. A.}
\footnotetext[15] {See, e.g., McCord v. Big Brothers Movement, 120 N.J. Eq. 446, 185 A. 480 (1936).}
\end{footnotes}
flows. The third group of sections examines cases involving protection of the waste assimilative capacity of streams as an aspect of the riparian right to discharge wastes. The fourth group of sections examines cases dealing with public rights to protect streamflows for recreation, boating, natural habitat, public water supply, and waste assimilation purposes.

I. PROTECTION OF WATER LEVELS FOR RECREATIONAL PURPOSES

Many riparian rights cases recognize a right of riparians to use water for recreational purposes, such as fishing, swimming, and boating. Most of those cases involve the locational extent of the riparian’s private right to use the surface of a lake or watercourse for such purposes. A few of them, however, deal with the protection of the level of the lake or watercourse in order to make possible continued exercise of that right. As it happens, most of the level protection cases involve lakes; however, nothing in those cases precludes applying the precedent to rivers, and one such case does involve a river.

In Collens v. New Canaan Water Co., the water company constructed a shallow well field along the bank of a river. Its pumping operations dried up the river below the wellfield and prevented plaintiff from continuing to boat and fish in the river adjacent to his riparian land. Finding that pumping from the wellfield was the equivalent of diverting water from the river, the court enjoined the diversion. The court held that the water company had no more right to divert the entire flow of the river than did any other riparian. This case does not attempt to apportion the flow in the river between the parties.

All the other cases deal with lake levels. Diversion of

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17. 115 Conn. 477, 234 A.2d 825 (1967); also discussed infra at Section II.
lake water occurs in three basic ways: (1) pumping water out of the lake; (2) controlling the source of supply of that lake, thereby preventing maintenance of the natural level; and, (3) controlling an outlet so as to lower the level.

A. Diversion by Pumping Water from a Lake

Several cases have protected recreational lake levels from encroachment by irrigation diversions. Two of these cases are particularly significant because the injunctions granted effected an allocation between the competing users, thereby recognizing the validity of both uses. Harris v. Brooks, a 1955 Arkansas case, involved a nonnavigable lake from which the defendant pumped water for rice irrigation purposes. This pumping lowered the water level so as to interfere with the plaintiff's recreational fishing business. Below a certain level, access to plaintiff's boat docks was impaired and fish ceased to bite. Therefore, the plaintiff sought an injunction to prohibit the pumping to the extent it adversely affected his business. The court granted the injunction.

In so doing, the court adopted the reasonable use theory and rejected the natural flow theory. It held that that theory was necessitated by the progress of civilization and that the purpose of the law "is to secure to each riparian owner equality in the use of water as near as may be by requiring each to exercise his right reasonably and with due regard to the rights of others similarly situated."

The Arkansas Supreme Court also enunciated four general rules or principles. They were: (1) the right to use water for strictly domestic purposes is superior to other uses, such as fishing, recreation, and irrigation; (2) except for domestic use, all other lawful uses are of equal legal status; (3) a lawful use must yield or be enjoined if it destroys another lawful use; and (4) in the event one use interferes with another, a determination on a factual basis must be made whether that use is unreasonable and should be enjoined or whether it is

19. Id. at 443, 283 S.W.2d at 133.
reasonable and an equitable allocation should be made.\textsuperscript{20}

The injunction granted by the court was especially significant. The court prohibited the irrigation diversion whenever the lake level fell below a specified level. That level was selected because the evidence showed that recreational fishing was significantly impaired below that level since fish ceased to bite and access to the plaintiff's docks became very difficult. Above that level, defendant irrigator was permitted to divert his usual amount.\textsuperscript{21}

\textit{Taylor v. Tampa Coal Co.}\textsuperscript{22} was a 1950 Florida case involving similar facts and a similar allocation. The plaintiff used the lake for purely recreational purposes. It sought an injunction to prevent the defendant from pumping water from the lake during any dry season to irrigate his citrus orchard. The Florida Supreme Court granted the injunction on the ground that recreational uses are entitled to the same protection from damage and destruction as are agricultural uses. The irrigation pumping interfered with Tampa Coal's recreational use. Therefore, it was enjoined during dry seasons when the lake fell below a specified level.

In 1969, the Florida Court of Appeals in \textit{Brown v. Ellingson}\textsuperscript{23} remanded a similar case for further proceedings. The issue was whether the defendant had deprived the plaintiff of his reasonable use of the water for pleasure and recreation by pumping it for irrigation purposes. Once again reasonable use and equality of uses were the doctrines applied. The court below was directed to ascertain whether the irrigation diversion was unreasonably interfering with the recreational use and, if so, to devise an apportionment.

The opposite result was reached in \textit{Lake Gibson Land Co. v. Lester.}\textsuperscript{24} Citing both \textit{Harris v. Brooks} and \textit{Taylor v. Tampa Coal Co.}, the Florida court found that the defendant, who had lowered the lake level only 22/32 inch in irrigating his citrus grove, had not interfered with the plaintiff's ripa-

\textsuperscript{20} Id. at 447, 283 S.W.2d at 134.
\textsuperscript{21} Id. at 447, 283 S.W.2d at 135.
\textsuperscript{22} 46 So. 2d 392 (Fla. 1950).
\textsuperscript{23} 224 So. 2d 391 (Fla. Dist. Ct. App. 1969).
\textsuperscript{24} 102 So. 2d 833 (Fla. Dist. Ct. App. 1958).
riparian rights. Applying the reasonable use theory the defendant's use was held to be permissible and injunctive relief was denied.

The Michigan Supreme Court also has balanced the equities and decreed an apportionment. In *Hoover v. Crane*, the plaintiff alleged the defendant lowered the level six to eight inches through his irrigation pumping. The defendant contended he caused less than a 1/2-inch drop. The court applied the reasonable use doctrine and allowed the defendant to pump only 1/4 inch of water whenever the lake reached a stated level. Thus limited, diversion was permitted.

All of these cases support the propositions that: (1) a riparian is not entitled to maintenance of natural lake levels or to a prohibition of consumptive diversions, and (2) a riparian diverter is not entitled to so much water that lake levels are significantly lowered to the detriment of other riparians making recreational uses of the water. Both propositions are corollaries of the reasonable use theory of riparian rights. Furthermore, the courts in these cases apportion the water between the competing recreational and consumptive users whenever they find that there is not enough water for both. They allocate a minimum level of water in the lake which is necessary to the continued exercise of the riparians' recreational use rights. All water above that level is made available for diversion by other riparians. In so doing, the courts are selecting the instream flow users whenever it is forced to select between users because there is sufficient water for only one of them. Although the courts do not say so, they are reaching results which create a natural flow minimum water level which is not subject to encroachment by diverters making otherwise reasonable uses.

B. Diversion by Controlling a Lake's Source of Water

The water level of a lake can be controlled through the diversion of the waters which feed that lake. By diverting this water before it enters the lake, a riparian proprietor can

have a substantial impact on the lake’s water level. In *Bouris v. Largent*, the Illinois Court of Appeals found that the construction of a dam between two lakes resulted in raising the upper lake and lowering the lower lake. It found that to be an unreasonable use. Plaintiff as a riparian was entitled to the natural flow of the water and the dam unreasonably interfered with such right. Accordingly, maintenance of the dam was enjoined.

The same result was reached in *Dardenne Realty Co. v. Abeken*, a 1937 Missouri case. There a mandatory injunction was granted ordering the defendant to remove a dam along a creek which fed plaintiff’s lake and to stop diverting water above the dam. The injunction prohibited interference with or diminution in the natural flow of any water into the lake except that used for domestic purposes.

These cases purport to follow the natural flow theory of riparian rights which does not allow any sensible diminution of flow or water levels. It seems odd that courts would allocate water between instream and consumptive users when the diversion is from the lake itself but would prohibit diversions altogether if the diversion is from the source of the lake. Perhaps that is more an apparent inconsistency than a real one. The diversions in the lake source diversion cases may have been large enough to lower the lake levels below those which the courts found unreasonable in the lake diversion cases. However, the cases do not contain enough water level data to ascertain whether that supposition is correct. Hence, it cannot be determined whether the choice of theory created a different result, or whether the same result would have been reached under the reasonable use theory employed in the lake diversion cases.

In any event, the selection of the natural flow theory in these cases no longer is viable precedent. It never was in Illinois, that state has followed the reasonable use theory in diversion cases since 1842. Missouri definitively rejected the natural flow theory and expressly adopted the reasonable

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27. 232 Mo. App. 945, 106 S.W.2d 966 (1937).
C. Diversion by Controlling an Outlet of a Lake

A riparian owner can likewise affect a lake's water level if he controls a dam at the lake's natural outlet. Numerous cases involve the situation in which one riparian has maintained such a dam for a long period of time. As a result of the higher or more stable water level, lakefront property owners have developed cottages or profitable resorts. The dam owner eventually wants to lower the water level and the lakefront owners go into court seeking injunctive relief to prevent the lowering of the lake to its previous natural level.

This discussion involves a different type of case than those discussed previously. None of these cases involve a consumptive diversion which affects water levels. Hence, allocation between users is not involved. Instead, two situations are involved. The first is a conflict between the recreational user riparians on an artificially raised natural watercourse and the dam owner who is using the dam pool for hydro-electric power production. The conflict arises from frequent changes in pool level caused by peak power production which interferes with recreational boat docks. The second situation is permanent abandonment and removal of dams.

1. Frequent Changes in Reservoir Level

Three cases have dealt with conflicts between recreational user riparians who seek stable water levels and hydro-electric dam owners who seek to change reservoir levels for peak power production. In *Hammond v. Antwerp Light & Power Co.*, the defendant had raised and lowered the lake level for sixty years. The plaintiffs were owners of a summer home who had enjoyed boating and fishing on the lake. They were seeking curtailment of the degree to which the defendant could exercise control over the lake level. The de-

29. Bollinger v. Henry, 375 S.W.2d 161 (Mo. 1964). This case confirmed in Ripka v. Wansing, 589 S.W.2d 333 (Mo. 1979).
fendant claimed a right by prescription. The court found that the plaintiffs had acquired reciprocal prescriptive easements to have the same approximate level maintained. The defendant was equitably estopped to go beyond those limits. An injunction was granted setting the limits of diversion to those which occurred for at least the duration of the statute of limitations; the greater fluctuations of lesser duration were enjoined.

*Cedar Lake Hotel Co. v. Cedar Lake Hydraulic Co.* §1 enjoined the frequent lowering of the lake level by a dam owner to the detriment of resort owners. The ground for the injunction, however, was that the defendant’s actions constituted continuing private nuisance.

The State of New Hampshire, acting on behalf of the public, sought an injunction against defendant’s lowering the lake level for power production in *State v. Great Falls Manufacturing Co.* §2 The Supreme Court held that the defendant was entitled to use the water in a reasonable manner. The factual question of whether the defendant’s use was reasonable was answered affirmatively.

Each of these three cases employs a different theory for granting the injunctions against substantial and frequent variations in reservoir level. While no consistent theory has been applied in these cases, their consistent result suggests that varying a reservoir level substantially for peak power production is unlawful because it unreasonably impinges on the ability of riparians to exercise their recreational use rights. The fluctuation which the courts will allow appears to be a function of the boating facilities which are established on the reservoir and maintained for long periods of time without objection by the dam owner.

Because of the lack of clarity of the law in this area, most power dam owners protect themselves by obtaining fee simple title to the bed of the reservoir, a fringe around it that is likely to be flooded with any frequency, and an additional dryland fringe beyond that. This renders all landowners

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31. 79 Wis. 297, 48 N.W. 371 (1891).
32. 76 N.H. 373, 83 A. 126 (1912).
around the reservoir nonriparians who have no right to any particular reservoir level. Their use of the reservoir surface would be as members of the public. Their placing of docks in the reservoir would be as lessees or licenses of the power dam owner; their rights can be made expressly subject to reservoir level fluctuations deemed necessary by the power dam owner.

2. Abandonment and Removal of Dams

The courts are divided whether a dam owner can drain a reservoir, remove the dam, and restore the prior natural watercourse level when maintenance of the dam becomes uneconomic to its owner. This creates a severe hardship for cottage owners who have relied on the artificial level.

(a) Right to Reservoir Level Upheld

The majority of courts appear to side with the lakefront resort owners. Kray v. Muggli is a leading case. The Minnesota Supreme Court granted an injunction against the dam owner's taking any affirmative steps to remove his dam. The court's opinion spoke in terms of reciprocal easements. The defendant had obtained prescriptive rights against the plaintiff's when he constructed and maintained the dam. This rule was held to be reciprocal so that the resort owners now had a right to the continued water level. The court ruled that one who has impounded water for a period beyond the statute of limitations cannot later be permitted to restore it to its original state if that would have the effect of destroying or materially injuring the property adjacent to the lake. The reciprocal right was not simply a personal one, but a right appurtenant and incident to the land itself. Under similar facts, the Wisconsin court in Smith v. Youmans enjoined the dam owner from lowering the level to the detriment of resort owners on the ground that the plaintiffs had acquired reciprocal prescriptive easements.

Missouri has reached the same result in a dam aban-

33. 84 Minn. 90, 86 N.W. 882 (1901).
34. Id. at 97, 86 N.W. at 884.
35. 96 Wis. 103, 70 N.W. 1115 (1897).
donment case. *Geisinger v. Klinhardt* was a case in which the lower owner sought to partially drain the lake by means of his dam. The lake was created by a country club which owned the lake bed and all the surrounding land. Plaintiff bought the land around the upper end of the lake and defendant bought the dam site. Dam repairs had been paid for by subscriptions from the public. An injunction was granted on the theory of an implied easement because, at the time plaintiff acquired the land, the lake, although an artificial one, was appurtenant and necessary to the proper enjoyment of the premises as a lake lot. Plaintiff's easement to the lake level was reciprocal to defendant's flooding easement since the value of the land for both of them depended upon maintenance of the lake. The court concluded that the plaintiff in purchasing the land had acquired the implied right to have the lake maintained at its usual level and the defendant had no right to lower the waters or drain the lake.

(b) Right to Reservoir Level Denied

A few cases have denied to recreational use riparians the right to have an artificial reservoir level maintained when the dam owner seeks to abandon and remove it. In 1958, the Rhode Island Supreme Court flatly rejected the notion of reciprocal easements in *Hood v. Slefkin*. It held that the lakefront riparian owners had no reciprocal easements to have the dam maintained or the water level preserved. A right to maintenance of the dam did not stem from riparian rights.

The Nebraska Supreme Court went even further in 1966. *Kiwanis Club Foundation, Inc. v. Yost* denied the upper riparian owners any right to the maintenance of defendant's dam. The court held:

> [W]here a dam has been built for the private convenience and advantage of the owner, he is not required to maintain and operate it for the benefit of an upper ripa-

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36. 321 Mo. 186, 9 S.W.2d 978 (1928).
37. *Id.* at 198, 9 S.W.2d at 983.
rian proprietor who obtains advantages from its existence; and the construction and maintenance of such a dam does not create any reciprocal rights in upstream riparian proprietors based on prescription, dedication, or estoppel.

The owner of a dam and the prescriptive rights to overflow the land of upper riparian owners may abandon his rights [sic], and may also return the river to its natural state by removing or destroying the dam.40

(c) Discussion

The dam abandonment cases have no consistent theory to explain their differences in result. Indeed, the fact situations in all of the cases appear to be similar. The differences in result, then, are the result of the application of different legal theories and the different policy attitudes which lie behind those theories. The basic policy question is whether the builder of a dam is constructing it for posterity or only for his own economic purposes. A subsidiary question is whether a dam owner should be permitted to argue that a dam is a temporary structure when it has the appearance of permanence and when substantial recreational investments are made by surrounding landowners because of that appearance of permanence and where the dam owner has done little or nothing to deter recreational development in reliance on the dam’s existence. The smorgasbord of legal theories resulting from these cases are but a reflection of the fact that the riparian doctrine itself does not suggest answers to these questions and that no other legal theory is obviously applicable. Since no legal theory propounded by a court in these cases is legally rational, courts have kept looking for a better theory to reach an appropriate policy result. The decisions in these cases demonstrate that courts tend to prefer an appropriate policy result to legal rationality if they are forced to choose between them.

3. Draining of a Natural Lake

While the courts are divided whether an artificially

40. Id. at 602, 139 N.W.2d at 361.
raised natural watercourse can be restored to its prior natural level, they are much more certain that natural lakes cannot be drained to the disadvantage of abutting riparians. That is an obvious violation of riparian rights, whether it is considered a deprivation of natural flow or a taking of an unreasonable proportion of the flow.

*Bohannon v. Camden Bend Drainage District*41 involved draining of a private lake as part of a drainage project. The Missouri Court of Appeals held that by taking the water from the lake the defendant would be depriving plaintiff of his riparian property without due process of law. Since defendant was a public agency and could not be enjoined, the court found that a cause of action was stated for inverse condemnation.

D. Discussion

Most courts apply the reasonable use theory of riparian rights to conflicts involving private recreational uses by riparians where lowered lake levels threaten to impair that use. They tend to consider a certain minimum level to be protected from encroachment by consumptive diversions. In that sense instream recreational uses are preferred over diversionary uses and instream power uses. However, those minimum levels tend to be set so that they become operative only during droughts or late summer low flow periods. During the rest of the time, instream recreational uses must share the surplus flow or water level with the consumptive diversionary or instream power uses.

A few courts, instead, have applied the natural flow theory or other theories, such as private nuisance, estoppel, reciprocal prescriptive easements, and the like, to protect instream recreational uses. This is true most prominently in dam abandonment cases. With few exceptions, however, most of those cases probably would have been decided the same way under the reasonable use theory.

The dam abandonment cases present a particularly difficult problem under the reasonable use theory, because they

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41. 240 Mo. App. 492, 208 S.W.2d 794 (1948).
are the only ones where a riparian desires to terminate a use rather than begin one. It is a little hard to hold that cessation of a use itself constitutes an unreasonable use, because the theory speaks in terms of affirmative uses. Nonetheless the courts tend to protect instream recreational uses even then by finding some theory which requires a continuation of a long-standing artificial condition. It is as if the courts consider the artificially raised natural watercourse to have become the natural watercourse through long use.

It is clear that instream recreational uses are a recognized riparian use and that they enjoy equal status with consumptive diversionary uses. Unlike the latter uses, however, they need not share the available water resources regardless of the degree of water shortage. When the water supply reaches a certain minimum level, instream uses in general are preferred to diversionary ones. This is particularly true of instream recreational uses.

II. PROTECTION OF FLOWS IN WATERCOURSES

In flowing watercourses, as distinguished from lakes, protection of streamflows becomes important principally in protecting instream recreational and natural habitat uses. While maintenance of stream levels is important, it is directly dependent on the volume of water flowing in the stream. Hence, cases involving watercourses tend to deal with streamflows rather than water levels. This is true even of mill cases where protection of maximum head is all important.

Diversions and instream uses on watercourses are governed by the riparian rights doctrine in the Eastern states. The nature of the riparian right has been discussed previously. The doctrine applies only to watercourses, and not to occasional unconfined flows resulting from rains or snowmelts. A watercourse is a running stream of water which has a bed, banks, and channel, and which flows perennially, although not necessarily continuously.42 In hydro-

42. See, e.g., Benson v. Chicago & A.R.R., 78 Mo. 504 (1883); Hoyt v. City of Hudson, 27 Wis. 656 (1871).
logic terms, although not so expressed by courts of law, watercourses have a base flow derived from groundwater supplies and are not dependent on diffused surface water after rains or snowmelts alone to maintain flow.

With one exception, *Collens v. New Canaan Water Co.*, 43 there are no cases involving a conflict between an in-stream recreational use and a consumptive diversionary use. Also, there are no cases involving an instream fish and wildlife habitat use. Hence, an examination of other types of cases involving protection of streamflows must be resorted to for possible analogous precedents.

*Collens v. New Canaan Water Co.* 44 involved a streamside wellfield diversion of the entire flow of a river for a public water supply. A downstream riparian was deprived of his boating swimming and fishing uses. The court held that diversion to be excessive and enjoined it. In the discussion in section I, this case was characterized as a level reduction case where drying up the stream was held unreasonable. The same can be said if it were characterized as a flow reduction case. In no event is a riparian entitled to take the entire flow of a stream, since the riparians below are entitled to a portion of the flow. The decision, however, does not apportion the water between the conflicting users, but merely enjoins the diversion of the whole of the streamflow.

Most riparian rights cases involve conflicts between diverters. In general the courts apportion the water between conflicting users proportionately to their respective needs, taking into account their locations, relation of diversion to total streamflow, and degree of consumptiveness of the diversions. The only preferred uses are domestic uses, whose needs are satisfied ahead of all other uses. 45

Since there are no other instream recreational use cases besides *Collens*, an examination of other types of instream use cases is in order. The predominant instream use situa-

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43. 115 Conn. 477, 234 A.2d 825 (1967). *See also supra* Section I.

44. *Id.*

tion is the conflict between two mills or between a mill and a consumptive diversion. Mills depend on stable streamflows, stable millpond levels, and stable tailrace levels to generate water power. Mills, and their modern equivalent, hydroelectric power dams, have been involved in numerous lawsuits. The following discussion of mill cases is presented for what learning may be applicable to instream recreational and wildlife habitat uses.

A. Need for Stable Water Flow or Level—Mills

Almost all the mill cases involve variations of the same factual situation: a millowner bringing suit against an upper riparian proprietor who is either himself building or altering a dam to be used in conjunction with a mill or who is diverting the water for some other purpose. The upper riparian is disturbing the natural or accustomed flow of the watercourse in a conflicting manner and the lower riparian mill owner is seeking to have the conduct enjoined.

Four theories have been employed in mill cases. The choice of theory does affect the result in some situations. The first theory is an early form of prescription. Mills which have operated without restraint for the period of the statute of limitations are entitled to continue operating without interference by conflicting mills or diversions. This is true even if the first mill’s use of water did not adversely affect any other riparian’s use. This prescription theory is based, then, on long use. Several early cases have subscribed to this theory. 46 Since the theory has been applied only to mills, and

46. See Colburn v. Richards, 13 Mass. 420 (1816). The court allowed a lower millowner who had depended on the flow of a stream for many years to enter plaintiff’s land and to remove the gate from plaintiff’s newly repaired dam. Although plaintiff intended to make an irrigation diversion, he was nonsuited in an action for trespass because defendant millowner had acquired a right to the flow by long user. The court held, therefore, that he was justified in using self-help to remove the obstruction.

It should be noted that this decision was made before the riparian doctrine was formulated in 1827, see supra note 8, and at a time when water use rights in general were considered to be based on long user. See generally Lauer, Common Law Background of the Riparian Doctrine, 28 Mo. L. Rev. 60 (1963).

For other cases following long user, see Buddington v. Bradley, 10 Conn. 213 (1834); Stickler v. Todd, 10 Serg. & Rawle 63 (Pa. 1823) (later implicitly over-
not to other types of riparian uses, and since long user as a basis for prescription was replaced by a requirement for adverse use by the middle of the nineteenth century, it is unlikely that the long user prescription theory would be applied to protect recreational and natural habitat streamflows.

The second theory is even less likely to be applied to non-mill uses. It is the prior use doctrine. It provides that the earlier mill is to be preferred over later mills or other later uses regardless of the duration of the first use. It is a rule not unlike the prior appropriation doctrine of the western United States. Prior use was expressly rejected by many courts as the basis for water use rights with the advent of the riparian rights doctrine. However, in the case of mills and hydro-electric power dams, it retains life in some jurisdictions. Since it has been rejected as the general basis for water use rights, it is unlikely that the prior use theory would be applied to protect recreational and natural habitat streamflows. Furthermore, by its terms the doctrine would be useless against diversionary uses established prior to in-stream uses. The third and fourth theories, the natural flow and reasonable use theories of riparian rights, are applied to mills today and have usefulness for protecting other in-stream flow uses besides mills.

1. Cases Applying the Natural Flow Theory

Gold Mining Co., Stock v. Jefferson Township, Robertson v. Arnold, and Samuels v. Armstrong are all cases in which the court found that the plaintiff was not being actually damaged as a result of the defendant’s diversion. Nevertheless, an injunction was granted and nominal damages were awarded in each case.

The rationale is the same in all the cases. The right to the natural flow of the stream is a property right annexed to the soil. Diversion of the water is an infringement of a riparian right. It makes no difference whether the plaintiff suffers actual damage or whether he needs the water for his own use. “The necessities of one man’s business cannot be the standard of another’s rights.” The use is an injury because the plaintiff might lose the right to divert at some later date through prescription and because every legal injury imparts damage. Thus, the plaintiff is entitled to an injunction against the diversion to prevent the defendant from obtaining any adverse rights to the flow through prescription, and to nominal damages. Allowing the injunction also prevents a multiplicity of suits otherwise required to toll the statute of limitations.

A riparian’s obligation not to diminish the flow in a watercourse to the injury of a mill is not excused by acts of third persons or apparent acquiescence by the injured riparian. In Stein v. Burden, defendant diverted the entire flow above plaintiff’s mill. Although defendant had constructed a ditch to return the water to the stream, a third party prevented the water’s return by diverting part of the flow from this ditch. The court held that under his natural flow obligations defendant had the duty to return all the waters he diverted except that used for domestic purposes. He diverted the water at his own risk. Liability rested on his failure to return the water, not on the reasons why he did not return it.

53. 118 Ga. 255, 45 S.E. 267 (1903).
55. 182 Ga. 664, 186 S.E. 806 (1936).
56. 46 Misc. 481, 93 N.Y.S. 24 (N.Y. Sup. Ct. 1905).
58. 29 Ala. 127 (1856).
The fact that defendant had no control over the third party was held irrelevant.

Another case showing strong support for natural flow rights was *New York Rubber Co. v. Rothery*. The plaintiff's predecessor in title had stood by and silently watched defendants construct a millrace with which to divert a substantial amount of the stream flow from the former's mill. Plaintiff then sought to enjoin the diversion. Defendant claimed the defense of estoppel—since no objection had been made while defendant was building the structure, no objection could be made now as to its use. The court disagreed. It held that since plaintiff's predecessor had no duty to speak, estoppel would not apply absent fraud or misleading statements. Mere silence did not constitute such fraud. Since the elements for estoppel were missing, the court held that plaintiff's natural flow rights were enforceable and issued the injunction.

These nine cases stand for one or the other of two propositions. The first was applied specifically. The natural flow theory of riparian rights is preferred. No riparian may take or alter the flow of a watercourse so that it is either sensibly or materially diminished when it reaches the lower riparian. Injury is not the gravamen of the cause of action, flow alteration or reduction is. The second proposition is implied. It stems from the fact that most of these cases were decided in the nineteenth century shortly after the long user and prior user theories fell out of favor. Mills enjoy a special status on watercourses. Flow of water to a prior mill cannot be encroached upon to its injury, even though flows to other types of riparian users may be subject to flow diminution for reasonable uses by other riparians. The natural flow theory protects mills from flow alterations and diminutions by later mills and other diversionary uses. Selection of the natural flow theory of riparian rights allowed substitution of a more modern legal theory without altering the legal result.

59. 107 N.Y. 310, 14 N.E. 269 (1887).
2. Cases Applying the Reasonable Use Theory

Other jurisdictions, however, apply the fourth theory, reasonable use, to mills. *Bollinger v. Henry*, a 1964 Missouri case, refused to enjoin a diversion from plaintiff's mill-race. Plaintiff operated his mill only one day per week. Defendant used the water for irrigation. The court held that defendant was entitled to reasonable use of the water and plaintiff was not entitled to the entire flow, particularly since he needed so little of it. The court seemed to balance the equities and reach the conclusion that, in light of the circumstances, defendant’s use was reasonable. *Scott v. Slaughter*, a 1963 Arkansas case, also applied the reasonable use doctrine. The case involved two riparians, both using a stream for commercial hunting and fishing purposes. The upper riparian built three dams which reduced the flow of the stream. Finding that obstruction to be an unreasonable use, the court ordered the defendant to lower two of his three dams.

*North Alabama Coal, Iron & Railway Co. v. Jones* and *Hartzall v. Sill* involved upper riparians constructing dams which affected the flow to lower millowners. *Pitts v. Lancaster Mills* and *Davis v. Getchell* both concerned dams which had been in operation above plaintiff millowners for some time. The doctrinal basis for the decisions in all four cases was the same. The courts held that every riparian has the right to use the water even though that use diminishes the flow and thus reduces the water level, so long as that use is reasonable. The test for reasonableness is a factual one depending on circumstances such as the width and depth of the stream bed, the volume and fall of the water, previous usage, and the state of improvement in the manufactories and useful arts developed along the stream's banks.

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60. 375 S.W.2d 161 (Mo. 1964).
62. 156 Ala. 360, 47 So. 144 (1908).
63. 12 Pa. 248 (1849).
64. 54 Mass. 156 (1847).
65. 50 Me. 602 (1862).
each of the four cases the court found that the defendant's use was a reasonable one. Therefore, the courts held that any injury plaintiffs suffered was merely *damnum absque injuria* and denied injunctive relief.

Although couched in somewhat different terms, the same conclusion was reached in *Harris v. Norfolk & Western Railway.* The case involved a different fact situation. The railroad pumped water from the river for its locomotives, permanently lowering the water level by the amounts withdrawn. This use was in contrast to mills on the stream which merely affected the continuity of the flow, and thus the water level, but not the overall amount of water in the stream. The North Carolina Supreme Court spoke in terms of the degree of injury. Every riparian is entitled to flow without material diminution. No riparian has the right to use the water so as to inflict substantial injury upon those below. The diversion by the railroad was held to be permissible because there was no appreciable, perceptible diminution in volume.

Occasionally the doctrine of reasonable use has been utilized to enjoin a diverting riparian. In *Timm v. Bear* and *Dilling v. Murray,* the upper riparians were operating dams or water wheels too large for the size of the river. Consequently, the water had to be dammed back in large quantities for extended periods. The courts held that because the works were unsuited to the nature of the watercourse the diversions were unreasonable. Therefore, injunctions against the diversions were granted.

The foregoing nine cases hold that a diversion resulting in a lowered or disrupted water flow is a legitimate use so long as that use is reasonable and the effect on other riparian uses is not unreasonable. Reasonableness turned upon a factual analysis of the particular case at bar. Those cases, although involving mills, follow the general run of riparian rights cases involving conflicts between diverters. They refuse to accord special status to mills.

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68. 29 Wis. 254 (1871).
69. 6 Ind. 324 (1855).
Occasionally special circumstances are involved in a case which change the legal result from that expected under the general rule. This is true in mill cases, too. The following four special situations involve rules applied in water allocation cases generally. The examples described all involve mills.

(a) Nonriparian Diversions

Uses outside the watershed generally are held to violate riparian rights. _Anderson v. Cincinnati Southern Railway_ 70 was another railroad case. The Kentucky Court of Appeals reversed a decision for the railroad and remanded the case to the trial court for a factual determination as to damages. The appellate court held that the pumping of water for use in locomotives would be unreasonable if the millowner was materially damaged as a result, since it removed water from the watercourse. A similar diversion was found to be potentially unreasonable in _Stratton v. Mount Hermon Boys' School_. 71 There the defendant diverted the water to its school grounds which were in a different watershed. The court held that a diversion out of the watershed or to non-contiguous land was potentially unreasonable. The only question then remaining was whether there was actual injury to the lower riparian in his reasonable use of the water. If so, relief was warranted. The court remanded the case for further deliberations on the actual injury question.

But a few jurisdictions disagree and permit nonriparian diversion even if a lower riparian is adversely affected, provided the diminution in flow is not unreasonable. Defendant diverted water and sold it to nonriparians in _Gillis v. Chase_. 72 The well-established English rule in other states was that any use by nonriparians was _per se_ unreasonable. New Hampshire, however, adopted a minority rule and permitted the nonriparian use. The court held that reasonable-

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70. 86 Ky. 44, 5 S.W. 49 (1887).
71. 216 Mass. 83, 103 N.E. 87 (1913).
ness was a question of fact depending on all relevant circumstances and the location of use was not solely determinative.

(b) Malicious Diversions

Diversions for the purpose of injuring a neighboring riparian are unlawful. *Fulton County Gas & Electric Co. v. Rockwood Manufacturing Co.*\(^{73}\) involved willful and malicious conduct. The defendant increased the capacity of his dam so as to further disrupt the operation of plaintiff's mill situated below him. The court held the defendant's conduct was malicious and wanton and enjoined it as a wrongful interference with the plaintiff's riparian rights.

(c) Prescription

The right to engage in otherwise unlawful diversions can be acquired by prescription. In *Lancaster Milling Co. v. Media Heights Golf Club*,\(^ {74}\) defendant had diverted water for approximately forty years to irrigate its greens and tees. The court held that it had acquired a prescriptive right against a downstream millowner to the amount of water it had diverted for the prescriptive period defined by the statute of limitations, but only to the extent that diversion was adverse to plaintiff and not in exercise of defendant's riparian rights. Hence, it denied defendant's motion for judgment on the pleadings.

(d) Estoppel

Otherwise unlawful diversions can be made lawful by failure of the affected riparian to object in a timely fashion. Estoppel was invoked in both *Southern Marble Co. v. Darnell*\(^ {75}\) and *Payne v. Paddock*.\(^ {76}\) In the former case, the plaintiff had worked for and been paid by the defendant for constructing the diversionary ditch. The court found that the plaintiff knew or should have known of its intended use.

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75. 94 Ga. 231, 21 S.E. 531 (1894).
76. Walker's Ch. 487 (Mich. 1844).
Since it did not object at that time, it was estopped from doing so after the defendant completed the ditch. In the latter case, the plaintiffs orally promised to allow the defendant to divert lake water. Then, after the defendant had expended $3,000, they gave him written notice forbidding the diversion. The appellate court refused to enjoin the diversion invoking the maxim, "He who seeks equity must do equity." Since the plaintiffs had allowed the defendant to spend a large sum in reliance on their oral promise, they could not now be heard to complain.

B. Summary

Courts have taken positions at both ends of the legal spectrum regarding a riparian owner's right to enjoy the undiminished, uninterrupted flow of a watercourse. While some tribunals have granted relief even in the absence of damage, other courts judge the diversion in terms of its comparative reasonableness. They take into consideration both the nature of the users along the watercourse and the nature of the stream itself. In view of the tendency of today's courts to apply the reasonable use doctrine to diversion cases, this last group of cases probably is the most indicative of the judiciary's future response in instream flow cases.

The recent mill cases do not suggest that level and flow maintenance will be accorded any special status against diversions. However, the few lake diversion cases decided in the past 30 years do suggest that recreational instream uses will be afforded minimum water levels free from encroachments by diversions. Those two trends suggest that mills and hydro-electric dams are now being treated like any other non-domestic riparian use, while instream recreational users are beginning to be guaranteed a minimum water level and a portion of streamflows. The cases are too few to predict what portion of streamflow will be allocated to recreational uses.

Throughout the development of riparian rights law, the courts in the eastern states have not addressed water needs for natural habitat. Hence, there is no way of knowing whether the courts would protect, for example, a private
swamp for waterfowl from destruction by upstream diversions.

III. MAINTENANCE OF WASTE ASSIMILATIVE CAPACITY

Analysis of eastern common law stream pollution cases suggests strongly that a riparian has a right to discharge wastes to a reasonable extent. Since riparians have a right to make reasonable uses of water, which are defined as those which do not unreasonably injure other riparians, it should not come as a surprise that riparians have a corresponding right to discharge wastes. A riparian may discharge wastes into a surface stream provided those wastes neither interfere with uses of water by other riparians to an unreasonable extent nor create a private or public nuisance. An unreasonable discharge of wastes has been defined as one causing an appreciable or substantial injury, as distinguished from a slight inconvenience or occasional annoyance. While the view of Pennsylvania Coal Co. v. Sanderson and Wife that a miner can pollute a stream with acid mine drainage without liability has been thoroughly discredited and repudiated, the case law has not gone so far as to prohibit waste discharges altogether. The right to discharge wastes has been

77. See, e.g., Ferguson v. Firmenich Mfg. Co., 77 Iowa 576, 42 N.W. 448 (1889); Joplin Consol. Mining Co. v. City of Joplin, 124 Mo. 129, 27 S.W. 406 (1894); Dwinel v. Veazie, 44 Me. 167 (1857); City of Cape Girardeau v. Hunze, 314 Mo. 438, 284 S.W. 471 (1926). See also Davis, supra note 14, at 748, 753, 780.
78. See, e.g., Bowman v. Humphrey, 124 Iowa 744, 100 N.W. 854 (1904); Bartlett v. Hum-Sinclair Coal Mining Co., 351 S.W.2d 214 (Mo. Ct. App. 1961); Davis, supra note 14, at 750, 780, app. B at 793-800; Trevett v. Prison Ass'n, 98 Va. 332, 36 S.E. 373 (1900).
81. 113 Pa. 126, 6 A. 453 (1886).
83. This is a natural flow concept which has been rejected with respect to diversions for well over 100 years. But see cases cited infra note 87.
sustained in not less than 30 cases, all grounded upon rea-
sonable use concepts and not involving apparent nui-
sances. That right has been recognized expressly in five of
those decisions. Only one case has rejected the notion,
and that one, perforce, was decided contrary to the rea-
sonable use doctrine it expressly affirms.

However, the courts are not uniformly agreed that there
is a riparian right to discharge wastes to a reasonable degree.
A minority of courts reject that notion, clinging to the
natural flow concept that streamflows cannot be altered per-
ceptibly or sensibly in quantity or quality. Some 14 deci-
sions, not involving apparent nuisances, have so held.

No riparian, even under the reasonable use concept, can
discharge wastes in circumstances where a private or public
nuisance is created. A private nuisance is defined as a non-
trespassory interference with the use or enjoyment of a
neighbor's land. Water pollution most often constitutes a
private nuisance when it creates odors interfering with places of habitation or work, poisons domestic or livestock
water supplies, or destroys the fertility of the soil. Generally, interferences with industrial processes are held not to
constitute private nuisances. The courts are split whether
interferences with irrigation constitute private nuisances.
Public nuisances are interferences with public health or
safety. Water pollution constitutes a public nuisance most
often when odors abound in residential areas, or public, do-

84. Davis, supra note 14, at 748 n.35, app. A at 786-89.
85. Donnelly Brick Co. v. City of New Britain, 106 Conn. 167, 137 A. 745 (1927)
(stated negatively); Ferguson v. Firmenich Mfg. Co., 77 Iowa 576, 42 N.W. 448
(1889); Dwinel v. Veazie, 44 Me. 167, 69 A.D. 94 (1857); Hayes v. Waldron, 44 N.H.
580, 84 A.D. 105 (1863); George v. Village of Chester, 59 Misc. 553, 111 N.Y.S. 722
(N.Y. Sup. Ct. 1908), aff'd mem., 137 A.D. 889, 121 N.Y.S. 1131 (1910), modified, 202
N.Y. 398, 95 N.E. 767 (1911).
A. 60, aff'd, 88 N.J.L. 368, 96 A. 62 (1915).
87. Davis, supra note 14, at 746 n.29, app. A at 783-84.
88. Davis, supra note 14, at 749-50. See supra notes 72-73.
90. Id
91. Id
92. Id
mestic or livestock water supplies are poisoned.\textsuperscript{94} Public nuisances may be abated by litigation either by public officials or specially damaged private individuals.\textsuperscript{95}

If a riparian has a right to discharge wastes to a reasonable extent, there are two ways the courts would be expected to recognize and enforce that right. First, courts could refuse to abate waste discharges which do not unreasonably interfere with uses by other riparians. That is the usual fact situation in the typical water pollution case not involving nuisances. Second, courts could abate diversions upstream from the waste discharger which would reduce the flow of the watercourse and reduce the dilution of downstream waste discharges so that other riparians would become injured by the waste discharges for the first time. If a waste discharge is a reasonable use, it should be free from upstream interferences as well as downstream complaints. There is only one case in the United States which deals with that second type of fact situation. In \textit{Auger & Simon Silk Dyeing Co. v. East Jersey Water Co.},\textsuperscript{96} two New Jersey courts rejected the argument that an upstream public water supply diverter could not divert water in order that a downstream waste discharger could continue to rely on the river’s assimilative capacity to avoid unreasonable interferences downstream. Unfortunately, the courts expressly rejected the majority notion of the riparian right to discharge wastes to a reasonable extent.\textsuperscript{97} Furthermore, the lower court suggested that the waste discharge was so polluting that it might constitute a public nuisance.\textsuperscript{98} Hence, that decision is of no value in ascertaining whether majority rule courts would protect the waste assimilative capacity of a river for use by waste dischargers in a case with the proper set of facts. Nonetheless, the concept of a riparian right to discharge wastes to a reasonable extent would seem to require court protection of waste assimilative capacity in appropriate

\textsuperscript{94} Davis, \textit{supra} note 14, at 751, app. D, table 2 at 806, app. C at 801-04.
\textsuperscript{95} \textit{Id.} at 751 n.51.
\textsuperscript{96} 88 N.J.L. 273, 96 A. 60 (1915), \textit{aff'd}, 88 N.J.L. 368, 96 A. 62 (1915).
\textsuperscript{98} \textit{Id.} at 275-76, 96 A. at 61.
circumstances.\textsuperscript{99}

Eastern courts have not addressed themselves to the question whether the waste assimilative capacity of streams should be protected from upstream diversions so that downstream riparians may make reasonable waste discharges. The only case to deal with an appropriate fact situation rejected the basic notion of a riparian right to discharge wastes to a reasonable extent and, therefore, rejected the assimilative capacity protection argument automatically.

\section*{IV. PUBLIC RIGHT TO PROTECT STREAMFLOWS}

In many states, the public has a right to use the surface of public streams. Those are defined either as navigable streams\textsuperscript{100} or as streams capable of floating sawlogs or recreational boats.\textsuperscript{101} The cases involve access and obstructions to passage. There are no cases discussing, much less recognizing, a right of members of the public to obtain injunctions to protect streamflows needed to maintain the public's right to use lakes and streams for boating, fishing, and swimming. This is not to say no such cause of action exists. An absence of cases means the question is unanswered. There are no cases in which a public agency has asserted a right to protect streamflows for maintenance of the public's enjoyment of boating, swimming, and fishing. Whether such a cause of action exists in the absence of statute is undecided by the cases. Public agencies have attempted to protect streamflows needed for public water supplies. The extent to which such public use of water will be preferred over private riparian

\begin{footnotesize}
\begin{enumerate}
\item[\textsuperscript{99}] But cf. United States v. 531.13 Acres of Land, 366 F.2d 915 (4th Cir. 1966), where the federal government was not required to pay compensation where the state imposed waste discharge limitations under a new statutory permit statute designed to protect the quality of water in a new federal reservoir because alleged common law rights to discharge wastes and to utilize the assimilative capacity of a river were impaired.
\item[\textsuperscript{101}] See, e.g., Johnson v. Seifert, 257 Minn. 159, 100 N.W.2d 689 (1960); Elder v. Delcour, 364 Mo. 835, 269 S.W.2d 17 (1954); Willow River Club v. Wade, 100 Wis. 86, 76 N.W. 273 (1898).
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uses may suggest the limits of any future public streamflow protection for recreational and natural habitat purposes.

A. Protection of Streamflows for Public Water Supplies

A major use of streams is diversion for public water supply purposes. Such diverters seek to make the streamflows on which they depend secure from competing diversionary uses. This section analyzes the few cases dealing with that question.

1. Diversion for Public Water Supply Treated as Ordinary Riparian Use

One method to protect the use of streamflows as sources of public water supplies is to seek to classify it as a use entitled to special protection from competing diversionary uses. In general, most courts refuse to give public water supply diversions any special status or protection. This means both that public water supply entities are not entitled to injunctive relief to halt competing diversions upstream and that they are subject to injunctions favoring competing downstream diversions.

The law reports are replete with cases in which a municipality or a public utility seeks to supply the city's inhabitants with water diverted from a lake or watercourse. Lower riparian proprietors anxious to curtail such large diversions object upon different theories. Two of their arguments are: (1) the lack of any riparian interest in the water by the city for the benefit of its residents and (2) the unreasonableness of diverting such significant quantities of water. The typical result is for the municipality, which had previously been diverting the water without any compensation to the lower riparians, to exercise its power of eminent domain. The lower riparians still are left without the benefit of the flow. However, they receive monetary awards in exchange for their lost property rights. But that disposition of those cases means that most courts do not accord public water supplies the special preemptive status accorded to domestic diversions. Instead, diversions for public water supplies initially are treated like any other riparian diversionary use.
There is a special complication in public water supply cases which does not ordinarily exist with private diversions. The water is sold and used by individual lot owners in the cities supplied. Most of them are not riparian. Hence, the diversion for public water supply usually is characterized as being a nonriparian diversion. That means that the usual riparian rights rules do not apply. Instead, the diversion is treated as unlawful. It would be enjoinable but for the fact that it is for a public purpose. As a result, the courts usually require compensation to be paid for the injuries resulting from the diversion because the diversion amounts to a taking of private property rights without compensation.

Since instream recreational and natural habitat uses are riparian, and diversions for public water supplies usually are nonriparian, the vast bulk of the public water supply cases are irrelevant to determine the courts' possible attitude toward public protection of instream uses. However, if a diversion for public water supply were treated as a riparian diversion, the relation of that diversion to other riparian uses in such a case would be relevant.

Only one jurisdiction, Ohio, has treated a public water supply diversion as a diversion to riparian land. In City of Canton v. Shock, the court did this by treating the entire city as riparian by a dubious analogy to sewage discharges by the city. As a riparian proprietor, it had the right to reasonably divert water for the use of its citizens. Then the court found that as long as the use was reasonable and the municipality returned the unused water to the stream, the legal rights of lower riparians were not invaded. It held that during seasons when the water supply was low the city and

104. 66 Ohio St. 19, 63 N.E. 600 (1902).
the lower riparian should divide the water so that any losses would be shared.

In this single case, the court treated the public water supply diversion as an ordinary riparian diversion subject to the usual reasonable use theory rules. This single teaching suggests that if this precedent were applied to public agency flow maintenance for recreational and natural habitat purposes, the public agency would have to share the available water supply with private riparians.

However, as discussed previously, most courts do not consider diversions for public water supply purposes to be a valid diversion to riparian land. Hence, it is entitled neither to protection from competing upstream diversions, however large, nor are competing downstream diversions required to share the water supply. Only when the public water supply diversion does not interfere with downstream riparian uses may it be immune from injunctive relief on the grounds that it is a nonriparian use.

2. Statutes Prohibiting Competing Diversions Are Unconstitutional

A second method to protect streamflow sources of public water supplies is to enact statutes or ordinances prohibiting competing diversions. Generally, such statutes or ordinances are unconstitutional unless compensation is paid because riparians are deprived of their proprietary rights to divert water under the riparian rights doctrine. A public water supply entity cannot improve its legal position as a diverter under the riparian rights doctrine by enacting legislation purporting to deny to other riparians their rights under the same doctrine.

V. CONCLUSION

The case decisions lend moderate support for a riparian right to level and flow maintenance for recreational purposes. There is no precedent one way or the other concerning such a riparian right for natural habitat purposes. There are no cases discussing any right in members of the public or in public agencies to enjoin riparian diversions encroaching on flows or levels needed for recreational or natural habitat activities by members of the public. If such a right were recognized in public agencies, the single public water supply diversion case which treats the diversion as riparian suggests that instream uses must share the water supply with diversionary uses. However, the private level and flow maintenance precedent probably would apply to public agency cases as well. The net conclusion to be reached is that the courts seem willing to establish minimum levels and flows for instream recreational uses, free from encroachment by diversions, which are enforceable by affected riparians. There is no precedent inhibiting a court from extending that right to public agencies acting on behalf of members of the public, to members of the public themselves, and to natural habitat uses.

Since the case law leaves so many questions undecided, the best way to settle the level and flow maintenance question is enactment of level and flow regulatory legislation.109

109. Such legislation could stand alone or be incorporated into a comprehensive diversion permit statute. See Davis, supra note 6; Missouri Instream Flow Requirements, supra note 1, at 319-27.