THE USE OF STREAM CHANNELS TO DELIVER STORED WATER: THE POSSIBILITY OF INTERFERENCE BY THIRD PARTIES

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P R E F A C E

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North Carolina is moving through a period of transition from an agricultural to an industrial era. Linked with this transition is a steady trend to urbanism: the growth of older towns and small cities and the spread of suburbia. And the trend to urbanism in North Carolina means that the special services demanded by the compact community are coming to be required at more places and in greater variety and quantity than ever before.

In such a transitional era, it is well periodically to test our established legal and political institutions in light of the changes taking place in society at large. For experience teaches that some institutional accommodations may be needed in the wake of such changes. Thus, it might well be asked as to any particular legal or political institution: does the institution, in its present form, readily accommodate the new social and economic conditions? If not, what changes ought to be made in order to adapt the institution to altered circumstances?

A case in point is the law of water rights. This is one of our most venerable legal institutions, derived probably from French precedents and modified but moderately during the course of a century or more of common law evolution and statutory change in North Carolina. As to rivers and streams we abide by the rule of "riparian rights" to govern the use of water; as to underground waters, by the rule of "overlying rights".

At the outset it may be observed that water rights law historically has shown a measure of resilience and responsiveness to changing conditions.

For example, in response to changing circumstances, the riparian rights doctrine evolved from a rule of "natural flow" to a rule of "reasonable use". That is:

> In its original form, the riparian doctrine placed primary emphasis on the right of all owners of land bordered or crossed by a stream to have its waters flow to them in their normal course, undiminished in quantity or quality. As needs for water and means of effectively utilizing it increased, emphasis shifted to the right of each riparian owner to make reasonable use of the water as it flowed by or through his property. The first uses recognized were for domestic and household purposes and the watering of farm animals--so-called "natural" uses. Later, recognition was accorded "artificial" uses for agricultural, manufacturing, power and similar purposes. The distinction between natural and artificial uses was accompanied by development of a rule distinguishing between their exercise; under this rule, a riparian owner may use sufficient water to satisfy his natural wants regardless of the effect on other owners, whereas for artificial purposes he may make only a reasonable use, taking into consideration the equal rights of other riparian owners, of water which is surplus to the natural wants of all of them. The more recent trend has been to blur the distinction between natural and artificial uses and to hold broadly, though no doubt without thereby eliminating a preference for domestic uses in the event of conflict, that riparian owners have common or correlative rights in the stream, and that each may make such use of it as is reasonable under all the circumstances.*

This internal evolution of the common law doctrine has been complemented in some ways by statutory change. Thus, public water supply agencies have long possessed the statutory rights to condemn needed water rights and related land interests. And, more recently, recognized shortcomings in the protection afforded by the common law doctrines to important classes of water users were remedied by two important enactments in North Carolina. The first (the State Stream Sanitation Law of 1951) established a State program of water pollution control to supplement the common law remedies

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* Robert H. Marquis, Richard M. Freeman, and Milton S. Heath, Jr., "The Movement for New Water Rights Laws in the Tennessee Valley States" 23 Tenn. Law Rev. 797, 807 (April, 1955).

for water pollution. The second (the Capacity Use Areas Law of 1967) is a flexible water management device that gave the State its first tool for regulating and coordinating water use in areas that from time to time may be found to need such attention.

(2)

The doctrines of riparian rights and overlying rights each require immediate access to the water--ownership of riparian or overlying land--as a prerequisite to the exercise of the water rights. And, as many municipalities have learned to their chagrin, each doctrine apparently requires that the land on which the water is used be located hard-by the water--on the riparian or overlying land.* Some relief from these limitations may be available to public water supply agencies through the power of condemnation, although at times this relief may be awkward to apply in practice and exorbitant in price. As a practical matter, it has probably been more significant that very few downstream water users have found it worthwhile to litigate their objections to public water supply uses of streams or underground water sources.

These features of the law of water rights have long posed problems for municipal water system managers, but usually problems of a manageable nature. The current trend to urbanism, however, puts the subject in a new light. In justifying the lowly status of public water supply agencies under the riparian rights doctrine, the courts have often stressed the *extraordinary* demand placed upon a stream by the withdrawal of water for the use of a large number of persons, such as a municipal water supply withdrawal. Yet the tide of

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* *Smith v. Town of Morganton*, 187 N.C. 801, 123 S.E. 88 (1924); *Rouse v. City of Kinston*, 188 N.C. 1, 123 S.E. 482 (1924).

urbanism brings with it an inevitable spread and growth of compact communities, with their inevitably extraordinary demands for water supply, available at a reasonable price in reliable and adequate quantities. It is thus apparent that some further adaptation of water rights doctrine may well be necessary in the face of the tide of industrialization and urbanization that is at hand.

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This report is addressed to one aspect of the adaptation of old water rights law to contemporary conditions: legal issues associated with the use of stream channels to deliver stored water from impoundments. Two examples will serve to illustrate these issues.

Storage is included in a Federal multipurpose reservoir to help meet the water supply needs of cities located downstream from the reservoir. Or, storage is provided in an industrial impoundment for stream flow augmentation to help assimilate mill wastes that are discharged into the stream below the reservoir. In both cases it is desired to use the stream channel as a means of delivering stored water from storage to use.

This report identifies three possible threats of interference with these uses of stream channels for transmitting stored water. First: intervening riparian land owners might successfully object to the use of the channel for such artificial water carriage. Second: intervening riparian land owners might be able to intercept the released water before it reaches its destination, and without legal recourse by the intended beneficiary of the storage. Third: owners of riparian land situated below the point of intended use may be able to raise enforceable legal objections against a proposed withdrawal for public water supply purposes.

Under existing riparian rights law in North Carolina, the report concludes, the first threat is probably insubstantial, while the second and third threats are significant. There may be some possibilities of moderating these risks in some cases via equitable concepts or doctrines of sovereign immunity or inverse condemnation. "For the long run, however, it is difficult to imagine an efficient stored water system being operated under North Carolina law as it seems presently to exist." (Report, page 33.) The report points to the possibility of legislative solutions, suggesting that further research is needed to explore legal aspects of such solutions, including possible constitutional issues. Of these issues, the most significant is due process or just compensation: *i.e.*, whether needed legislation could be enacted that did not constitute a deprivation of property without due process or a taking of property without just compensation. Without making any specific recommendations, the report takes note of several possible responses to the arguments against legislative change based on constitutional grounds:

(1) the rights in water prescribed by the doctrine of riparian rights are not property rights within the constitutional meaning;

(2) riparian rights could be altered little enough so that the change would not constitute a taking, but could be regarded as regulation under the police power;

(3) new law can include provisions for the recovery for loss of rights that are found to be "taken" in the constitutional sense, on the initiative of the ones who have suffered a loss; and

(4) the property rights which would be "taken" by a change in law could be condemned by customary procedures for condemnation of water rights.

Obviously it is desirable at an early date for the State of North Carolina to determine which of the indicated courses of action it intends to pursue.

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These conclusions should be of lively interest to the instigator of this research project, the North Carolina Department of Water and Air Resources. The Department encouraged and financed the study of these problems because of its role of developing water resources policy recommendations for the State. More specifically, the Department has a special interest in plans for conveying stored waters from Federal reservoirs through stream channels because it has given assurances to the United States of non-federal cooperation for water supply storage in federal reservoirs. Coordination for the study was provided by the North Carolina Water Resources Research Institute, which has assumed vigorous leadership in helping to stimulate needed legal and institutional research on water resources in North Carolina.

The conclusions of the report should also be of interest to the Legislative Research Commission, which was directed by the 1969 General Assembly to study the problems that were the subject of this research project and to make legislative recommendations thereon.

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I. INTRODUCTION

The availability of water, a resource whose accessability to use has been too easily assumed, is under increasing strain. Although there is little threat in the humid East of total demand exceeding total supply (since most uses permit perpetual re-use), the problem of maintaining a geographic and temporal match between supply and demand promises to grow increasingly acute as more and more users seek a position in the cycle of use and re-use.

The supply of and demand upon water often are irregular, and the peaks of supply and demand can rarely be relied upon to be in phase. (To the extent that there is a relationship between the levels of supply and demand, it often tends to be negative.) An obvious approach to this problem is to store water when the supply is greater than demand, to be used later when demand would otherwise exceed supply.

One of the tools for carrying out such storage was presented by the Water Supply Act of 1958,[1] which provides that reservoir projects undertaken by the Corps of Engineers or Bureau of Reclamation can be constructed to include water storage capacity for future industrial or municipal needs if State or local interests give "assurances" that they will pay the costs of the component of the reservoir which suits it for water storage.

North Carolina legislation has, in turn, been enacted which authorizes the North Carolina Board of Water and Air Resources "to provide federal agencies the required assurances, subject to availability of appropriations by the General Assembly or applicable funds or assurances from local governments,

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[1] 72 Stat. 319 (1958), 43 U.S.C. § 390b (1964).

of nonfederal cooperation for water supply storage and other congressionally authorized purposes in federal projects."[1] The same legislation authorizes the Board to transfer its interest in Federal water storage projects to municipalities and counties (if they take over the financial commitment) and reassign the interests of local governments in the water storage (if the financial commitments are adjusted accordingly).[2]

A presumed effect of this state legislation is to permit the State to "buy" water storage capacity in reservoir projects from the Corps of Engineers and then to control the allocation of the water which is stored.

It has been anticipated that a major use for water stored in this fashion might be to supplement the customary sources of municipal water distribution systems when those sources are inadequate to meet the needs.[3] Naturally some arrangements must be made to convey the water from the reservoir where it is stored to the place of its ultimate use. Customarily a pipeline or canal is laid to transmit the impounded waters to the appropriate municipal distribution systems.

North Carolina, however, is considering another alternative for conveying the stored water to the point of distribution--using the channel of the watercourse downstream from the reservoir for transmission of the stored waters to their intended beneficiaries. Thus, when a water user (who had an interest in the stored water) needed a supplement to his usual water supply, some of the stored water would be released, increasing the quantity of water in the stream which the user can withdraw as it passes a point where he can conveniently withdraw water.

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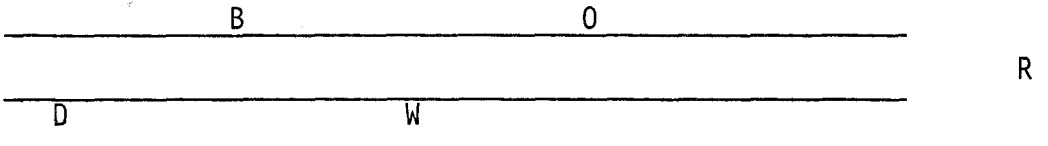
[1] N.C. GEN. STAT. § 143-354(a)(10) (Supp. 1967). See also N.C. GEN. STAT. § 143-215.40 to -215.44, as added by S.L. 1969, Ch. 968 (S 834).

[2] N. C. GEN. STAT. § 143-354(a)(11) (Supp. 1967).

[3] Another possible use of the stored water is for augmenting the flow of the stream so it can handle greater quantities of waste disposed into it. The legal problems would be much the same for flow augmentation as for water supply supplementation.

Although the use of the stream channel as the "pipeline" for transmitting the water raises substantial new mechanical and administrative difficulties, the conceptual problems of deciding how much water to allocate to which users under what circumstances remain the same as if each user had a pipe which ran directly to the reservoir. It is, however, important to determine whether present water law permits the Corps of Engineers, the Bureau, and the local governments to work out these questions of allocation and of administrative and mechanical technique among themselves without interference by others with no direct, financial stake in the stored water.

Three threats of interference by such third parties to use of a stream channel for transmitting stored water, whose resolutions are largely dependent on legal considerations, seem clear. They can be described by reference to the following chart, which indicates the relationships of the reservoir where water is stored (R), an intended beneficiary of the stored water (B), an owner of land on the stream between the reservoir and the intended beneficiary (O), a third-party withdrawer of water between the reservoir and the intended beneficiary (W), and a third-party owner of land on the stream downstream from the point where the intended beneficiary withdraws his water (D).



The three possible problems, in brief, are these: (1) that O might successfully complain against release of stored water into the stream; (2) that W might intercept the stored water that had been released so that it

could not be enjoyed by B; and (3) that D might successfully complain against the intended beneficiary's withdrawal from the stream of water representing the stored water which had been released. The occurrence of any of these possibilities would undermine the utility of conveying stored water to intended beneficiaries through existing watercourses.

II. UNIQUE LEGAL CONSIDERATION FOR RELEASED WATER

Preliminary to any specific consideration of the legal factors which affect the resolutions of these problems, a threshold question whose resolution could affect all the problems must be considered--is the stored water intended and released for the use of chosen beneficiaries downstream legally distinguishable from that water flowing naturally in the watercourse? In other words, can the use of the water which has once been retained in a reservoir be treated legally in a manner inconsistent with the doctrine of riparian rights which applies to other water in the stream? If stored water after being released into the stream can be treated as a separable form of property being transported through the medium of the stream, questions are raised about the rights of the parties with interests in the stored water to transmit "their" water through the stream usufructorily shared by all of the riparian owners. If stored water once released loses any characteristics of private property and is legally indistinguishable from any other water in the stream, then it is unlikely that the interested parties can enjoy any unique protection.

Two theories[1] can be advanced against the usual rule[2] that detained water remains, like other water in a watercourse, susceptible to the requirements of riparian doctrine : (1) existing Federal and State legislation operates to override this usual rule; (2) the stored water can be earmarked for the sole use of the contracting parties, regardless of riparian doctrine, through the "addition doctrine" and then "floated" down the stream to intended beneficiaries.

A. Effect of Legislation

Nothing appearing in the North Carolina statutes making provisions for water storage explicitly suggests that the legislation alters existing riparian rights in water. The legislation authorizes the Board of Water

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[1] These two theories are ones which would permit the storage and release of water and its withdrawal by intended beneficiaries to occur without reference to riparian doctrine. The contractual arrangements suggested by the Water Supply Act of 1958, 72 Stat. 319(1958), 43 U.S.C. § 390b (1964), and by the North Carolina legislation, N.C. GEN. STAT. § 143-354(a)(10)(11) (Supp. 1967) might also influence the application of riparian doctrines if applied. Those possibilities are mentioned later in this paper.

[2] This rule has not had occasion to be applied in North Carolina, nor are there a great number of cases on this point throughout the United States. The following quote from *Dyer v. Cranston Print Works*, 22 R.I. 506, 511, 48 Atl. 791, 794 (1901) faces the issue squarely and with precise relevance to the issues raised in this paper:

> ...we cannot agree to the claim that one who regulates the natural flow of a river by retaining the water in time of freshets, and storing it for use in time of drought, thereby gains any exclusive right to use it as against another riparian owner....
> As to reservoirs constructed upon the stream itself or its tributaries, the law is well settled that all riparian proprietors are entitled to share the benefit of them, whether they contribute to their construction and maintenance or not. If one proprietor, for his own benefit, regulates the natural flow of the water so as to diminish the flow when it is excessive and to augment it when it is deficient, using, however, only the water which would naturally pursue the same course to the sea, he gains thereby no advantage over his neighbor, but must permit him to share equally in the benefits of the arrangement.

Resources to transfer to local governments "any interest held by the State in such storage."[1] This authorization can hardly be read to establish any new "interest" in the water storage. Instead, the use of the word "any" (in the phrase "any interest") suggests that the interests that may be transferred are those that might arise independent of the operation of that statute.

The Federal legislation laying the foundation for the inclusion of local water storage capacity in federal reservoir projects also fails to present an explicit suggestion that anything other than traditional water law would govern the rights to water released from storage. The legislation provides only that storage may be included for water for "present or anticipated future demand or need for municipal or industrial water."[2]

An argument might be possible that the operation of a water storage system as envisioned in the Federal and State legislation demands that those who pay for the storage capacity shall be able to control the use of the stored water and that a change from present law should therefore be implied. Some details of the Water Supply Act of 1958 tend to support that implication. The first proviso of § 390(b) says that the cost of such a project "... shall be determined on the basis that all *authorized* purposes served by the project shall share *equitably* in the *benefits* of multiple purpose construction..." [emphasis added].[3] This proviso appears to anticipate some sort of preconstruction decision as to distribution of the increased water volume (presumably one "benefit") and to express a policy of limiting that benefit to certain "authorized" persons. The questions, of course, are which users may

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[1] N. C. GEN. STAT. § 143-354(a)(11) (Supp. 1967).
[2] Water Supply Act of 1958, 72 Stat. 319(b) (1958), 43 U.S.C. § 390b(b) (1964).
[3] Water Supply Act of 1958, 72 Stat. 319(b) (1958), 43 U.S.C. § 390b(b) (1964).

be authorized and how is that decision to be made. No positive answer is provided; the second provision of (b) states, however, that before a 390b project shall begin, the state and local interests must agree to pay their share of the costs. It would seem that that requirement read together with the first proviso anticipates a scheme of the likely users paying in and taking out proportionately. And perhaps that is supported by the fourth proviso of (b) which allows some exemption from payments if there is no anticipated use for 10 years. The fact that there is to be an exemption from payment for those who do not expect to use the facilities for 10 years implies that all others who will have use of the reservoir *are* expected to pay.

The propriety of drawing from these tenuous arguments an implication that would derogate long-established water law is, however, doubtful, even if there were nothing else to negate that implication--which there is. The Federal legislation provides that it is not to modify the provisions of section 383 of Title 43.[1] This section, in turn, provides generally that nothing in various enumerated sections of Title 43 "shall be construed as affecting or intended to affect or to in any way interfere with the laws of any State or Territory relating to the control, appropriation, use, or distribution of water used in irrigation, or any vested right acquired thereunder..."[2] This section reflects a policy of preventing Title 43 provisions from affecting state water law. The United States Supreme Court reads that section as requiring "the United States to comply with state law when, in the construction and operation of a reclamation project, it becomes necessary to acquire

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1 Water Supply Act of 1958, 72 Stat. 319(c) (1958), 43 U.S.C. § 390b(b) (1964).
2 Irrigation Act of 1902, 32 Stat. 390 (1902), 43 U.S.C. 383 (1964).

water rights or vested interests therein."[1] In light of this policy, reading § 390b as it is presently written to override state law *by implication* would be strained (although an argument might be made that § 383 applies only to water used for irrigation, and that it does not ostensibly forbid alterations in water law by sections other than those enumerated, of which § 390b is not one).

The doctrine that statutes should be read in such a way as to avoid questions about their constitutionality also would militate against reading such an implication into § 390b, since altering water rights without awarding compensation to those whose rights are altered raises the danger of a violation of the Fifth Amendment.[2]

B. "Floating" Privately Owned Water Downstream

This theory would combine and extend the policy lying behind two water law doctrines, thus protecting stored water intended upon release for contributing beneficiaries. It is generally accepted, although the point has never had occasion to be settled in North Carolina, that a riparian owner who adds to a stream is absolutely entitled to withdraw that added amount of water from the stream in addition to that which he may withdraw as a riparian owner, at least until the water he has added passes beyond his boundaries.[3] The floatage doctrine permits the use of naturally floatable streams for the transportation of logs.[4] Clearly, neither doctrine is directly applicable

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1 *Ivanhoe Irrigation District v. McCracken*, 357 U.S. 275, 291 (1958).
2 See text at p.34, *infra*.
3 *Dyer v. Cranston Print Works Co.*, 22 R.I. 506, 48 Atl. 791 (1901)(dictum).
4 *Commissioners of Burke Co. v. Catawba Lumber Co.*, 116 N.C. 731, 21 S.E. 941 (1895).

to stored water or its transportation. The argument would have to be made that stored water should be covered by the same policy as added water since neither would be available to anyone without the efforts of the upper riparian owner, and that "floatage" rights should extend to released water as well as to logs since state policy seems to favor the use of waterways for transportation. This argument is, however, tenuous at best, and to rely upon it to give any protection to an intended beneficiary would be exceedingly imprudent.

C. Conclusions

There is little question that both Federal and State legislation reflects policies of fostering the use of multi-purpose Federal reservoirs to augment sources of local water supply. Unfortunately, however, neither that legislation nor the context of common law in which that legislation must be applied in North Carolina lend themselves to the interpretation that the interest in water released from storage, under present statutes or case law doctrines, are specially protected following the release. This inadequate legal foundation for implementing the policy of the Federal and State legislation may stem from the more frequent application of the Federal legislation in the arid West, where existing water law more readily permits protection of interests in the stored water. In any event, the present weak structure in North Carolina for support of the expressed policy invites amendments to State or Federal legislation which would permit adequate protection of releases of stored water.

III. THREATS ARISING UNDER CONVENTIONAL RIPARIAN DOCTRINE

As discussed in the introduction, the threats which need to be considered are these: (1) complaints against release of stored water into a watercourse; (2) withdrawal of released water before it reaches the intended beneficiary; and (3) complaints against withdrawal of the released water by the intended beneficiary. The law of riparian rights in North Carolina and other relevant laws applicable generally to the use of watercourses are applied in the discussion of these questions under the assumption that they apply to the use of water in question as they do to other uses of water, an assumption justified in the preceding section.

A. Complaint Against Release of Stored Water Into a Watercourse

Actions alleging the wrongfulness of a release of stored water might be based in North Carolina on interference with riparian rights as well as on other, more general theories including negligence, trespass, nuisance, and taking. The outcome of a suit does not, however, depend solely on the applicability of one of these theories. Suit might be precluded at the outset if the defendant were protected by sovereign immunity, and equitable principles or the doctrine of inverse condemnation might prevent injunction as a remedy even if the activity were found wrongful.

1. Theories of Wrongfulness

a. Interference with Riparian Rights

Determination of Whether a Use is an Interference with Rights. Even though a use of water has no tangible harmful effect on a person or on his real and personal property, that use may be wrongful if it interferes with

the intangible rights that he has in the water itself. In North Carolina, as in other eastern states, these rights extend to those who own property abutting on a watercourse, and thus are called riparian rights.

The doctrine of riparian rights occurs in two basic versions: "natural flow," which entitles each riparian owner to the flow of water past his land unaltered from its natural state except as caused by *domestic* uses upstream; and "reasonable use," which, in essence, entitles every riparian owner to use the water to the extent equitably consistent with uses to which other riparian owners wish to put the water. Each jurisdiction which adheres to riparian doctrine, however, has not clearly chosen one of these versions. The characterization by the Restatement of Torts is apt: "Most courts not realizing that there are two distinct theories or not fully grasping their fundamental differences, attempt to apply both theories, with results that are not only illogical but weirdly inconsistent at times."[1]

North Carolina cases reflect some confusion between the theories. These are examples of casual statements made in North Carolina cases smacking of natural flow:

> ...riparian proprietors, in the absence of specific limitations upon their rights, are entitled to have the stream which washes their lands flow as it is wont by nature, without material diminution...[2]

> It is well settled by the authorities that at common law, a riparian owner has the right to have the natural stream of water flow by or through his land in its ordinary natural state...[3]

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1 RESTATEMENT OF TORTS, Introductory Note, Topic 3, Ch. 41 at 346 (1939).
2 *Harris v. Norfolk & Western Ky.*, 153 N.C. 542, 544, 69 S.E. 623, 624 (1910).
3 *Durham v. Cotton Mills*, 141 N.C. 615, 624, 54 S.E. 453, 456 (1906).

> ...a riparian owner...has a right to have the stream remain in place and to flow as nature directs, and to make such use of the flowing water as he can make without materially interfering with the equal rights of the owners above and below him on the stream.[1]

The presence of these largely unconsidered dicta, however, is outweighed by other factors indicating rejection by North Carolina of natural flow principles.

Any case which approved a remedy against a use which did no actual damage or interfered with no other actual use would be a tip-off that a natural-flow conception of riparian rights might be coloring the decision, even if the natural flow doctrine were never expressed. But there are no such cases. The one which comes closest to permitting a recovery in such circumstances is *Smith v. Town of Morganton*,[2] which allowed $100 in permanent damages for a decrease in the value of the land. But these damages, tenuous though they might be, are represented by the court as being actual, not nominal.

Furthermore, reasonable use principles have been frequently repeated in North Carolina cases. A representative statement is that "a riparian proprietor is entitled to the natural flow of the stream running through or along his land in its accustomed channel, undiminished in quantity and unimpaired in quality, except as may be occasioned by the reasonable use of water by other like proprietors."[3] Cases with statements such as this have been chronologically intertwined with those that contain natural-flow-sounding statements (and sometimes statements of both kinds are contained in the same case), but the most recent North Carolina case[4] directly raising the issue quite clearly rejected natural flow, relied on reasonable-use principles, and upheld jury findings that the challenged use was not wrongful despite uncontroverted evidence that the

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1 *Smith v. Town of Morganton*, 187 N.C. 801, 802, 123 S.E. 88, 89 (1924).
2 187 N.C. 801, 123 S.E. 88 (1924).
3 *Smith v. Town of Morganton*, 187 N.C. 801, 123 S.E. 88 (1924).
4 *Dunlap v. Carolina Power & Light Co.*, 212 N.C. 814, 195 S.E. 43 (1938).

use prevented the natural flow of water past the plaintiff's riparian land. This result is irreconcilable with natural-flow principles.

The strength of this case, coupled with the lack of any decisions that can be explained only by reliance on natural-flow principles, negates any real possibility that a flow augmentation program can be successfully challenged by a plaintiff asserting rights to the natural flow of the water.

Acceptance of a pure reasonable-use version of riparian rights suggests that the ultimate determination of wrongfulness will be made by a weighing test--the good accomplished by the use weighed against the harm it does. But in North Carolina, as in many other states,[1] the reasonable-use version of riparian rights, even when accepted in general, has not always been applied purely. There is strong inclination to find various uses as unreasonable *per se*, without entering a process of weighing the benefit of those uses against the injuries they do and the other uses they preclude.

Some tendency exists to label as *per se* unreasonable *any* use which injures downstream owners. Examples of statements that reflect this tendency are these:

> ...every proprietor of land through which a watercourse flows has a right to a reasonable use of the water...provided he does not by his use of it materially damage any other proprietor above or below.[2]

> ...ponding and letting loose [of water which] caused an irregular flow in the river, and ...damaged plaintiff's property ...is unreasonable use ...[quoting from jury charge as not "intrinsically erroneous"].[3]

> [The proprietors of land along streams may use the water for any purpose] to which it can be beneficially applied, but in so doing they have no right to inflict *material* or substantial injury on those below.[4]

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1 *E.g., Portland Sebago Ice Co. v. Phinney,* 117 Me. 153, 103 A. 150 (1918); *Barton v. Union Cattle Co.,* 28 Neb. 350, 44 N.W. 454 (1889).

2 *Williamson v. Lock's Creek Canal Co.,* 78 N.C. 156 (1878).

3 *Geer v. Durham Water Co.,* 127 N.C. 349 at 352, 353, 37 S.E. 474, 475 (1900).

4 *Harris v. Norfolk & Western Ry.* 153 N.C. 542, 544, 69 S.E. 623, 624 (1910).

Despite the presence of these statements, the vitality of the doctrine they reflect is doubtful. Each is dictum; no such rule has ever been applied to justify recovery in a case which in fact did not involve a use that was unreasonable under the more limited instances of *per se* unreasonableness (namely, diversion and pollution) discussed below. The leading case of *Dunlap v. Carolina Power and Light Company*[1] supports this analysis by recognizing that the "statements that a riparian owner 'has no right to use the water to the prejudice of the proprietor below him'...are used in cases in which the diversion or pollution of water is being discussed."[2] Such statements probably can be characterized as symptoms of the unarticulated and not fully comprehended evolution from natural-flow to reasonable-use principles.

The continued vitality of a doctrine that pollution and diversion of water are unreasonable *per se* is more probable. Two statements that reflect this possibility are these:

> ...it has become a well established principle of law in this and most other jurisdictions that any substantial diversion of waters or the pollution of the waters of a stream give rise to a cause of action in behalf of all riparian owners affected thereby.[3]

> It is now well settled that neither a corporation nor an individual can divert water from its natural course so as to damage another.[4]

The principle is actually not well settled. A clear determination that pollution is *per se* unreasonable has been hindered by the existence of a statute which makes unlawful the discharge of any waste into a stream from which a public drinking supply is taken unless the waste has been treated in an approved system;[5] thus, after 1903, when this statute was enacted, there has been little opportunity to reach the question of the reasonableness of

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1 212 N.C. 814, 195 S.E. 43 (1938).
2 *Id.* at 820, 195 S.E. at 47.
3 *Dunlap v. Carolina Power & Light Co.*, 212 N.C. 814, 818, 195 S.E. 43,46 (193
4 *Craft v. R.R.*, 136 N.C. 49, 51, 48 S.E. 519, 520 (1904).
5 N.C. GEN. STAT. § 130-165 (Supp. 1967).

pollution under riparian doctrine since its wrongfulness usually is clear under the statutes. And no case clearly holds that diversion is unreasonable *per se*. In the two cases[1] in which the court affirmed findings of the unreasonableness of diversions, the jury had been asked to find whether the defendants had "unreasonably diverted" the water. The cases do not reveal whether the jury was permitted to find the unreasonableness on a *per se* basis or only by weighing the facts. Furthermore, the court had early intimated in *Walton v. Mills*[2] that the need to divert water for the gold-washing industry might call for steering riparian doctrines in a direction that would permit finding such diversion reasonable. There has not since been a clear opportunity to test that intimation.

Moreover, the precise meaning of "diversion" is far from clear. As has been observed, "Sometimes the court seems to be merely rephrasing the basic riparian rule; sometimes the court may be referring to diversion of water from one drainage basin to another; sometimes it is apparently referring only to the effect on the particular complainant and is not concerned with whether the water is ultimately returned to the same watershed or drainage basin."[3]

Only in one of the most recent riparian rights cases has the court explicitly acknowledged the balancing test for determining reasonableness.

> What constitutes a reasonable use is a question of fact having regard to the subject matter and the use; the occasion and manner of its application; its object and extent and necessity; the nature and size of the stream; the kind of business to which it is subservient; the importance and necessity of the use claimed by one party and the extent of the injury caused by it to the other.[4]

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[1] *Cook v. Town of Mebane*, 191 N.C. 1, 131 S.E. 407 (1926); *Smith v. Town of Morganton*, 187 N.C. 801, 123 S.E. 88(1924).

[2] 86 N.C. 280 (1881).

[3] M. Heath, "Water Use Law in Action: An Analysis of Arrangements by Water Users To Secure Their Sources of Water Supply, with Particular Reference to the Research Triangle Region of North Carolina," p. 22 (Southeastern Water Law Conference, Athens, Ga., November, 1961).

[4] *Dunlap v. Carolina Power & Light Co.*, 212 N.C. 814, 820, 195 S.E. 43, 47 (1938).

This acknowledgment probably signals that findings of *per se* unreasonableness will be limited at most to diversion and pollution, and suggests that, more than likely,[1] the ultimate determination of the wrongfulness of stream augmentation will have to be decided by a jury applying the balancing test to see whether that use is reasonable. A prediction of the result of this test in any particular case is impossible. Since, however, the engineering of an augmentation system will presumably have foreseen and removed most possibilities of consequential damage, the likelihood that the harm done by the system would outweigh its benefits seems slim.

Harm to the Plaintiff As a Prerequisite for a Cause of Action. A successful suit for an interference with his riparian rights by one who suffered no actual harm from a supposed wrongful use is at least conceivable.

The functional value of determining whether a state might permit a successful suit by one who had not been harmed by the allegedly wrongful use may be questionable. By definition, a state which applies natural-flow principles can uphold a suit by a plaintiff suffering no physical harm. And in a state which applies only pure reasonable-use principles, a suit against a harmless use could never be successful since unreasonableness can be found only if the gravity of the harm outweighs the utility of the use (an impossible occurrence if the weight of harm equals zero).

Nevertheless, since one study made the possibility of an injunction against a harmless use a focal point of its investigations,[2] this paper will consider separately the question of whether an allegedly wrongful use

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[1] Conceivably, stream augmentation would not be entitled to the weighing test for determining its reasonableness if the purpose to which the augmentation was intended to be put was imputed to the augmentation itself. That is, the augmentation might be susceptible to a finding of unreasonableness *per se* if it were intended to be diverted to a use which was unreasonable *per se*.

[2] Water Resources Center, Cornell University, Profile of a Watershed: Flint Creek 84-118 (March, 1965).

must be shown to be harmful.

This problem can have significance, other than as a semantic variation of the natural-flow / reasonable-use question, in one of these ways:

(1) In a jurisdiction which ostensibly applies reasonable-use principles but which holds some uses to be *per se* unreasonable, the harmlessness doctrine could prevent suits against *per se* unreasonable uses which in fact cause no harm, and

(2) Even in a jurisdiction that always weighed harm against utility, the doctrine could be applied to prevent a suit against a use that caused some harm if the plaintiff himself were not one of those who were harmed.

In North Carolina, it is fairly clear that a successful suit for interference with riparian rights cannot be maintained unless the plaintiff has been actually harmed, although a requirement that he show harm has never been stated expressly. In all successful suits by one riparian owner against another user, the plaintiff has suffered material harm, and the decision in at least one case seems based overtly on the unsatisfied requirement that the plaintiff show actual harm.[1]

Only two cases seem possibly to contradict the notion that the suit could not successfully be brought by one who suffered no actual harm. In *Chaffin v. Manufacturing Company*,[2] the North Carolina Supreme Court reversed a judgment in favor of the defendant, whose dam had allegedly caused ponding on the plaintiff's land, because the trial judge failed to instruct the jury that they could find nominal damages for the plaintiff if the ponding had occurred on his land to *any* extent. Although the court loosely cited some statements

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[1] *Harris v. Norfolk & Western Ry.*, 153 N.C. 542, 69 S.E. 623 (1910) (discussed in text at p. 18, note 3).

[2] 136 N.C. 364, 48 S.E. 770 (1904).

relating to riparian rights, the recovery for ponding could more likely have been justified on a trespass theory, an action for which the appropriateness of nominal damages is established.[1] In *Smith v. Morganton*,[2] the court affirmed $100 in permanent damages for the plaintiff on a jury finding of unreasonable diversion of water. The damages represented a loss in value of the land, but no present interference with a use being made of the land or water. Although damages of $100 for permanent loss are suspiciously close to nominal damages for invasion of a mere technical right, permanent damages themselves are not inconsistent with the requirement of actual harm; a reduction in value of the land indicates that the effect on the land was tangible.

In *Harris v. Norfolk & Western Ry.*,[3] the plaintiff sued the railway company for permanent damages allegedly caused by the taking of water from a pond formed by the plaintiff as a source of water for locomotives. The trial court entered judgment for the defendant upon a jury finding that the defendant did not wrongfully divert and use the water from plaintiff's pond. The Supreme Court of North Carolina upheld the judgment since the evidence supported a finding that the removal of water had no appreciable effect. The court stated that the right of action "accrues from the taking [of water] in such unreasonable quantity as to materially, substantially injure the lower proprietor in some use he is making of the water."[4] This case thus seems to require that a plaintiff be harmed before he can complain, although it is possible to interpret the court's holding as reflecting an application of the natural-flow theory (which permits any diminution which is not

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[1] *White v. Griffin*, 49 N.C. 139 (1856).
[2] 187 N.C. 801, 123 S.E. 88 (1924).
[3] 153 N.C. 542, 69 S.E. 623 (1910).
[4] *Id.* at 544, 69 S.E. at 624.

material) and concurrent support of a finding that no material diminution occurred.

Thus, the scanty evidence that exists suggests little possibility that a downstream user could successfully maintain a suit against an upstream user unless he suffered material harm as a result. Furthermore, the courts of at least one state, New York, where this possibility was judged to be real, showed concern with the threat of the allegedly wrongful user's obtaining a prescriptive easement to continue the use unless downstream owners were permitted to sue regardless of harm.[1] The North Carolina Court has, correctly, expressed no concern with the possibility of prescriptive rights' accruing during the period that the use causes no harm, so there is little basis upon which the court would even consider sustaining an action by an unharmed plaintiff.

Conclusions. These conclusions seem justified:

(1) That a plaintiff's riparian rights would be determined by reference to natural flow principles is nearly inconceivable. The use would instead be judged by reasonable use principles.

(2) There is little chance that a release of water from a reservoir would be regarded as *per se* unreasonable.

(3) A balancing test would likely be applied to test the reasonableness of the release. It seems unlikely that programs of release as presently conceived could do harm enough to make possible a finding that the release was unreasonable.

b. Other Theories of Wrongfulness

Interference with riparian rights is the only theory of wrongfulness which is peculiarly applicable to activities which affect watercourses.

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[1] *Amsterdam Knitting Co. v. Dean*, 162 N.Y. 278, 56 N.E. 757 (1900); *N.Y. Rubber Co. v. Rothery*, 132 N.Y. 293, 30 N.E. 841 (1892).

These activities, though, are not subject to judgment solely by that theory. Other, general theories are also available as bases for suits against uses of waters and watercourses.

Negligence. Negligence is the failure to act as a reasonably prudent man would act under the circumstances. Anyone who suffers damage as a proximate result of negligence may recover for the damage from the negligent person if that person owed him a duty to act nonnegligently (unless there is some legal excuse or bar to the suit).[1]

Plaintiffs have claimed to have been damaged by the negligent use of a watercourse by another or by a negligent act by another which affected a watercourse.[2] A suit based on a negligence theory could arise against those who released stored water if, for example, they failed to use due care and released such a large quantity of water that it injured downstream property.

Nuisance. A nuisance includes a use of property by one person in such a way that it inequitably impairs another's use and enjoyment of his own property. Some impairment of another's use or enjoyment of his property may occur without its being a nuisance; only when the harm done by the use outweighs the benefit of the use does it become a nuisance.[3]

Nuisance has been the basis of a suit by one harmed by another's use of a watercourse.[4] A nuisance theory conceivably could be employed against the release of stored water if, for example, the release created odors or noises that affected someone else's use of his own property.

Trespass. An intentional or negligent entry upon land in possession of another without his consent is wrongful trespass even if it does no actual

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1 PROSSER, TORTS § 30 (3rd ed. 1964).
2 *Briscoe v. Young*, 131 N.C. 386, 42 S.E. 893 (1902).
3 PROSSER, TORTS § 89 at 602 (3rd ed. 1964).
4 *Cook v. Town of Mebane*, 191 N.C. 1, 131 S.E. 407 (1926); *Kitchen Lumber Co. v. Tallahassee Power Co.*, 206 N.C. 515, 174 S.E. 417 (1924).

damage. Trespass occurs not only if a person goes upon land himself, but also if he causes something else, such as water, to enter upon the land.[1] Trespass has been the basis in North Carolina for recoveries for damage resulting from the overflow of water upon a plaintiff's land.[2] In 1957, however, a North Carolina case[3] made clear that intent or negligence was necessary to support a recovery for trespass, so whether the same facts would support a recovery for trespass today is not clear. In any event, the release of stored water by one with knowledge that it would overflow another's land could be the subject of an action for trespass.

Taking. "Taking" is a theory of recovery for injury to property based on constitutional requirements. (The Fifth and Fourteenth Amendments to the United States Constitution forbid the Federal and State governments, respectively, from depriving any person of property without due process of law, which includes the payment of just compensation.) Taking can be applied not only to transferring title to land to the government, but also to other effects that reduce the value of land.[4] Taking is not so much a separate theory of wrongfulness as it is an application of any number of theories of wrongfulness against a government. An action for taking against a government might, if brought against a nonsovereign, be based on negligence, intentional tort, or absolute liability. It seems frequently to have been applied to overcome the barrier of sovereign immunity that often prevents suits on nonconstitutional bases for property damage against governments. Taking is not, however, a complete substitute for actions that might be brought against a nongovernmental defendant, because there must be an element

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1 PROSSER, TORTS § 13 (3rd ed. 1964).
2 *Chaffin v. Manufacturing Co.* 135 N.C. 95, 47 S.E. 276 (1904).
3 *Smith v. Pate,* 246 N.C. 63, 97 S.E. 2d 457 (1957).
4 *United States v. Causby,* 328 U.S. 256 (1946).

of unreasonableness in the governmental action that leads to the suit as well as an actual depression in the value of the property.[1] Not every tort is a taking. A suit for taking could not be substituted, for example, for a suit on the theory of trespass in a case in which only nominal damages had occurred or, probably, for a suit based on a natural-flow theory of riparian rights in which the government's acts had not been unreasonable.

Conclusions. All of the general tort theories are possible bases for actions to recover for harmful results of flow augmentation. A carefully designed and administered program of release of stored water, however, is unlikely to give rise to any of the results that would need to be shown in order to make applicable one of these theories.

2. Sovereign Immunity As a Barrier to Suit

Any person seeking to sue on the basis of the alleged wrongfulness of the release of stored water would have to make the State or Federal government, or one of their agencies or employees, a defendant to the suit.[2] A threshold question in any case which would include a governmental agency as a defendant is whether that agency is protected from suit by the doctrine of sovereign immunity.

a. The Federal Government

The federal government historically has enjoyed immunity from suit unless it consents.[3] Two instances of such consent are of potential relevance.

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[1] Ferrell, "Legal Liabilities of Counties and County Commissioners" in COUNTY GOVERNMENT IN NORTH CAROLINA 271 (Ferrell ed. 1968).

[2] The issue of who would be proper parties to a suit resulting from the release of stored water is not addressed here. Its difficulties are exemplified by *Dugan v. Rank*, 372 U.S. 609 (1963).

[3] *Osborn v. Bank of United States*, 22 U.S. 738 (1824).

The Federal Tort Claims Act[1] permits *tort* suits against the United States except as specifically enumerated. Of the specifically enumerated acts which are excepted, one category is of particular relevance--acts either done with due care in the execution of a statute or regulation or done within the "discretionary function or duty" of a federal agency or employee.[2] This exception from the Tort Claims Act seems to raise a good possibility that a suit could not be brought alleging the tortiousness of a release unless it involved negligence at the operational level.

A specific statutory provision[3] might also be taken as affecting the susceptibility of the federal government to suit over its activities in relation to water storage. That section gives consent to join the United States as a defendant in a suit "for the adjudication of rights to the use of water of a river system or other source." In *Dugan v. Rank*,[4] however, the United States Supreme Court stated that this section applies only to cases "involving a general adjudication of all of the rights of various owners on a given stream,"[5] and not to private suits by one plaintiff against the United States.

b. The State Government

Sovereign immunity would, in most cases, preclude a successful suit against an agency of the State based on the alleged wrongfulness of flow augmentation. In North Carolina tort claims against the State are recognized only for active negligence.[6] This immunity applies as well when the plaintiff

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1 The relevant sections are 28 U.S.C. § 1346(b) (1962) and 28 U.S.C. § 2680 (1965).
2 28 U.S.C. 2680(a) (1965).
3 66 Stat. 560, 43 U.S.C. 666(a) (1964).
4 372 U.S. 609 (1963).
5 *Id.* at 618.
6 N.C. GEN. STAT. §§ 143-291 through -300.1 (1964; Supp. 1967).

seeks to enjoin conduct as it does when he asks damages.[1] Of course, if the conduct has such an adverse effect on property that it is regarded as a "taking," then sovereign immunity cannot protect the State from its constitutional duty to make just compensation. But even in such a case, only monetary damages and not an injunction can be obtained, as explained in the section on inverse condemnation.

c. Conclusion

If the defendant in an action to enjoin stream augmentation were the State, it would be protected by the doctrine of sovereign immunity from any kind of action unless there were "active negligence" or its activity amounted to a "taking". The Federal government might also be protected from suit unless there were a "taking" or negligence at the operational level.

3. Barriers to Injunction As a Remedy

a. Application of Equitable Principles

A civil suit in which the release of stored water is found wrongful would not necessarily be fatal to the program. If the judgment in the suit required only the payment of damages, the program could be continued if the payment of damages is not prohibitive. If the judgment takes the form of an injunction, however, the program may not be maintained in its original form. Thus, protection against injunction as a remedy, if the release should be found wrongful, is of great importance. At least two measures are relevant in testing whether the equitable power to grant an injunction against a wrongful release of stored water should be exercised: determining whether monetary damages are an adequate remedy, and balancing the conveniences.

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[1] *Schloss v. State Highway and Public Works Commission*, 230 N.C. 489, 53 S.E. 517 (1949).

Adequacy of remedy at law. North Carolina courts, like most courts, will refuse to grant equitable relief if the remedy at law is adequate.[1] Although the determination of the adequacy of the remedy at law can be made only on a case-by-case basis, generally a wrongful use of, or interference with, a watercourse is of a continuing nature. Thus, monetary damages have no effect on damage that will apparently occur following the suit, and an equitable remedy is appropriate.

In some cases, however, the legal remedy might be adequate. An example of such a case is one in which the damage is done by a single act of negligence, unlikely to recur.

Balancing the conveniences. "Balancing the conveniences" is a doctrine used to deny an injunction in a case in which it might otherwise seem appropriate. In essence, it provides that an injunction should not be granted if the harm that it would prevent (or benefit that it would cause) is not as great as the harm that would be brought about by the injunction. Although North Carolina cases do not specifically avow the employment of this doctrine, its use is implicit in the results of many cases, including some in which the court has denied injunctions against the erection of milldams and power dams.[2] This statement from *Walton* might indicate a groping for application of balancing conveniences in a case based on interference with riparian rights:

> ...it does not follow [from acceptance of the riparian doctrine of reasonable use] that when the injury from the excessive appropriation of the water...is inconsiderable, and may be compensated in damages, while the stoppage of the works of the other will entail on him large and irreparable loss, the restraining power will be exercised....[3]

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1 *Town of Clinton v. Ross*, 226 N.C. 682, 40 S.E. 2d 593 (1946).
2 *Tucker & Carter Rope Co. v. Southern Aluminium Co.*, 165 N.C. 572, 81 S.E. 771 (1914); *Wilder v. Strickland*, 55 N.C. 387 (1856); *Eason v. Perkins*, 17 N.C. 38 (1831).
3 *Walton v. Mills*, 86 N.C. 280 (1882).

b. Inverse Condemnation

A factor peculiar to a public user of water enters into consideration of the possibility of injunctive action against release of stored water. A municipality may condemn water rights outside the city that are necessary in order to maintain and operate a water system.[1] Thus, even if a plaintiff were able to enjoin flow augmentation intended for the benefit of a municipality, the municipality should be able thereafter to condemn that plaintiff's water rights and re-institute the release. In recognition of this possibility, the courts have refused to enjoin wrongful governmental activity if the government chooses to pay compensatory damages to the plaintiff.[2] This "inverse condemnation" reduces litigation by preventing the necessity of later suits for condemnation of the water rights. The existence of this power suggests that, when the defendant to a suit seeking an injunction possesses the power to condemn in order to carry out the program of stored water release, the defendant may, if it is willing to pay compensatory damages, avoid an injunction.[3]

c. Conclusions

Assuming that flow augmentation was found to be unreasonable through application of the balancing test called for by reasonable-use riparian doctrine and that sovereign immunity did not prevent suit, it is not clear whether equitable principles would present material added protection against the injunction of the wrongful use.

If the effect of the flow augmentation were a "taking" of private property, the defendant, if it possessed the power of condemnation, would be

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1 N.C. GEN. STAT. §§ 160-204, 05 (1964).
2 *Clinard v. Kernersville*, 215 N.C. 745, 3 S.E. 2d 267 (1939).
3 The difficulty is not so easily resolved when both the plaintiff and defendant have condemnatory powers. See Johnson, "Condemnation of Water Rights", 46 TEXAS L. REV. 1054, 1072-86 (1968).

able to avoid injunction, paying damages instead, through the application of inverse condemnation.

B. Interception of Augmentation by Unintended Beneficiary

The withdrawal of a significant amount of the released water by one whose access is between the point of augmentation and the point of withdrawal by the intended beneficiary would subvert the purpose of an augmentation program. The possibilities of legal action to prevent such unintended withdrawal, however, are limited.

An intended beneficiary would of course be able to advance claims based on existing water law against the withdrawer of augmentation, just as he could against a withdrawer of the stream's naturally determined flow. In making such claims, however, the intended beneficiary would stand only in the shoes of any other owner asserting riparian rights. His status as an intended beneficiary of the augmentation who had contributed to the cost of the project probably would be irrelevant, as indicated earlier in this material.[1] It is, though, at least conceivable, but speculative, that the intended beneficiary's financial contribution could be regarded as a factor in determining reasonableness. That is, when the good is balanced against the harm to determine reasonableness, that harm might be taken to include the negated value of his contribution to the reservoir. The possibility that financial loss from money spent in anticipation of being able to use the water might be a factor in the weighing process is suggested in *Walton v. Mills*,[2] in which the court weighed plaintiff's potential injury in loss of water supply

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[1] See pp. 4-9, *supra*.
[2] 86 N.C. 280 (1882).

against the possibility that "...defendant [would] be subjected to much loss from the *moneys he has expended*..."[1] [emphasis added].

Even though the contractual arrangements for release of water might thus make easier the road to showing the reasonableness of the use, this effect cannot be relied upon. The threat of an intervening owner's being able to withdraw released water may be decreased, but it remains as a threat.

C. Claims Against Intended Beneficiary's Withdrawal

Even assuming that stored water may be released into the stream without legal impediment and that no intervening user withdraws a significant portion of the augmentation, the purpose of the program could still be frustrated if the intended beneficiary could be prevented from withdrawing the full measure of augmentation intended for it. At least three points might be raised against the withdrawal of water by an intended beneficiary: (1) that the withdrawal is an unreasonable use violating the applicable riparian doctrines; (2) that, if the intended beneficiary is not a riparian owner, nonriparian users have no right to use of any of the water; and (3) that, if the user is a municipality, a municipality has no rights to withdraw water for use as a water supply. The beneficiary, however, may in some cases draw protection from the doctrines of sovereign immunity and inverse condemnation.

1. Unreasonable Use

As mentioned earlier,[2] contractual arrangements between the Corps of Engineers and an intended beneficiary probably cannot affect the relative

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[1] 86 N.C. 284 (1882).

[2] See pp. 5-8, *supra*.

rights of the beneficiary and the other riparian owners in the augmentation. Thus, any withdrawal by the intended beneficiary is subject to a claim by a downstream owner that it interferes with his riparian rights in the water. Any claim would probably be settled by reference to the reasonableness test, unless either of the two considerations discussed below controlled the decision or unless the withdrawal were for the purpose of a diversion unreasonable *per se*.

2. Use by Nonriparian Owner

A tenet of the riparian doctrine is that ownership of land in actual contact with the water course is an indispensable requisite to claiming any rights in the water. Proximity without contact is insufficient. One must allege and prove that a person is a riparian owner in order to acquire any right to a use or condition of a watercourse.[1] In *Durham v. Cotton Mills*[2], the court based its decision granting an injunction on a statute prohibiting the pollution of public drinking-water supply. Although the court did not specifically consider the question of whether the nonriparian plaintiff had any rights in the stream, it included a dictum that "the person who sets up a claim to [the] enjoyment [of the stream] must show that he is a riparian proprietor or that in some way he has acquired riparian rights in the stream."[3] *Miller v. Coppage*[4] also contains a dictum to the effect that a person must be a riparian owner to have any rights in the stream or its bed. Thus, a serious legal threat would cloud any withdrawals of augmentation by a nonriparian beneficiary.

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1 *Young v. City of Asheville*, 241 N.C. 618, 86 S.E. 408 (1955).
2 141 N.C. 615, 54 S.E. 458 (1906).
3 *Id.* at 627, 54 S.E. at 466.
4 261 N.C. 430, 135 S.E. 1 (1964).

3. Use As Local Water Supply

North Carolina law may grant local governments no rights as against other riparian owners to withdraw water for a municipal water supply, without regard even to a test of reasonableness.

In *Pernell v. Henderson*[1] the North Carolina Supreme Court held, in a suit by a lower riparian owner, that the city could claim no right to divert water to supply its inhabitants. The clear holding of this case is indirectly supported by two older cases which uphold, without raising the question of a municipality's lack of right to withdraw a water supply, actions by downstream users against municipalities.[2]

A good case can, however, be made for overruling *Pernell*. Confusion by the court about the applicability of the natural-flow and reasonable-use versions of riparian doctrine seems to cloud the rationale of the case. To the extent that the court's rationale can be articulated, it seems to be that the local government could not justify its withdrawal as a domestic use by imputing the domesticity of its inhabitants' use of the water to itself as a corporate body. The question of domestic or nondomestic use to which this answer responds, however, is relevant only when natural-flow theory is applicable. As discussed earlier, North Carolina, at least by 1938, had clearly adopted the reasonable-use measure of riparian rights.[3] Under the reasonable-use theory, no reason is apparent why a municipality which is a riparian user should not, like any other riparian user, be entitled to demonstrate the reasonableness of its use.

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[1] 220 N.C. 79, 16 S.E. 449 (1941).
[2] *Smith v. Town of Morganton*, 187 N.C. 801, 123 S.E. 88 (1924); *Geer v. Durham Water Co.*, 127 N.C. 349, 37 S.E. 474 (1900).
[3] See text at note 4, p. 15, *supra*.

Furthermore, the withdrawal of water from streams for use as a municipal water supply has been clearly accepted, if not expressly sanctioned, by North Carolina law. Statutes have long protected public water supplies withdrawn from streams from sewage disposal.[1]

4. Sovereign Immunity and Inverse Condemnation As Protection Against an Injunction of Municipal Withdrawal

Unlike the State, municipal corporations in North Carolina do not enjoy immunity from all tort suits. Rather, local governmental activities are separated on a case-by-case basis into immune and nonimmune categories.[2] Since furnishing water for private consumption is regarded as nonimmune,[3] suits against a city based on activities involved in furnishing a water supply for private consumption are possible.

A city need not, however, have its activity enjoined, even if found wrongful. Since the city has the power to condemn property interests in order to acquire and maintain water supplies,[4] it could, if an injunction were sought, invoke the principle of inverse condemnation and pay for the property interest involved rather than suffer an injunction.

5. Conclusions

These conclusions seem justified:

(1) No user of water from a stream, even if the water was augmentation made possible by his financial assistance, would be free from the possibility

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1 N.C. GEN. STAT. ch. 130 § 165 (Supp. 1967).
2 Ferrell, "Legal Liabilities of Counties and County Commissioners", in COUNTY GOVERNMENT IN NORTH CAROLINA pp. 262, 263 (Ferrell ed. 1968).
3 *Munich v. City of Durham*, 181 N.C. 188, 106 S.E. 665 (1921).
4 N.C. GEN. STAT. § 40-2(2) (1966).

of a suit by a noncontributing downstream user claiming an unreasonable interference with riparian rights.

(2) If the intended beneficiary of the augmentation is a nonriparian owner, he has little chance of success if sued by an injured riparian owner.

(3) If a city is intended to benefit from the augmentation for its water supply, a suit claiming the wrongfulness of the withdrawal is likely to be successful even if the city is a riparian owner.

(4) A city may avoid having its withdrawal stopped by paying compensatory damages under the doctrine of inverse condemnation.

IV. GENERAL CONCLUSIONS

Many of the conclusions reached in this paper suggest that there is presently little chance of substantial disruption of a program of releasing stored water for the benefit of specific downstream withdrawers. This relative safety from disruptive legal challenge, however, seems to stem largely from the abundance of water whose presence reduces the motivation for anyone's challenging another's manipulations of flowing water. The present legal framework itself seems to present numerous opportunities for disruptive challenge to arrangements made to direct stored water to particular beneficiaries.

In brief, the existing problems (and protections) grow largely from the need of intended users of stored water to compete with other potential users on the basis of the "reasonableness" of their respective uses, without regard to whether the water being competed for had been previously retained in a storage facility to which one of the competing users had made a financial contribution. In addition, some problems arise because of the apparent barriers to finding that a use of water for a municipal water supply can be

reasonable. On the other hand, a water storage program would enjoy some benefits from the doctrine of sovereign immunity and from the power of inverse condemnation, which would at least give some assurance that those with competing rights could be paid in lieu of their enjoining either the release of stored water or the withdrawal of the water once released.

For the long run, however, it is difficult to imagine an efficient stored-water system being operated under North Carolina law as it seems presently to exist. Although the power of condemnation should permit some respite from the threat of the injunction of intended release or use (at the price of some uncertainty about the costs which a project will incur), the threat of intervening withdrawal by someone who has not contributed to the cost of the storage capacity is more serious. Knowledge that such a possibility exists could lead to a plague of gamesmanship among potential contributors to water storage capacity as each attempted to wait out the others' contributions to the construction of a water storage facility which he could then take advantage of at no cost. At worst, such a development could unravel the efforts at long-range anticipation of water needs; at best, it might require condemnation of noncontributors' interests in the water as they unveiled their intent to withdraw from stored-water releases following the initiation of the water-release program.

The crux of this problem is, of course, the frequently alleged inadequacy of the riparian rights doctrine as a context for the control of water use.[1]

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[1] *E.g.*, Milliman, "Private Rights and Water Law: a Critique", 2 J. LAW & ECON. 41, 47 (1959). See generally, LEGISLATIVE RESEARCH CENTER, UNIVERSITY OF MICHIGAN, WATER RESOURCES AND THE LAW (1958).

The alternatives to the riparian rights doctrine and variations upon that doctrine are many, and there is precedent for adopting some of the alternatives or variations.[1] Aside from the practical difficulties in engineering such a change, a basic issue to be resolved is that of the constitutionality of such a change--a change which might be argued to be a deprivation of property rights. Among the responses to that argument upon which a change in basic water law might be based are these:

(1) The rights in water prescribed by the doctrine of riparian rights are not property rights within the constitutional meaning;[2]

(2) Riparian rights could be altered little enough so that the change would not constitute a taking, but could be regarded as regulation under the police power;[3]

(3) New law can include provisions for the recovery for loss of rights that are found to be "taken" in the constitutional sense, on the initiative of the ones who have suffered a loss;[4]

(4) The rights which would be "taken" by a change in law could be condemned by customary procedures for condemnation of water rights.[5]

Either the practicability or the legal effectiveness in North Carolina of each of these responses remains open to some question, and it appears unlikely that any of the responses has been so thoroughly tested that it can be relied upon as acceptable in North Carolina without additional research and legislative effort.

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[1] KAN. STAT. ANN. §§ 82a-701 through -725 (1964; Supp. 1968); MISS. CODE ANN. § 5956-01 through -30 (Supp. 1968). See Ellis, "Some Current and Proposed Water Rights Legislation in Eastern States", 41 IOWA L. REV. 237 (1956).

[2] See generally Lauer, "The Riparian Right as Property" in LEGISLATIVE RESEARCH CENTER, UNIVERSITY OF MICHIGAN LAW SCHOOL, WATER RESOURCES AND THE LAW, 131 (1958).

[3] *Ibid.*; Scurlock, "Constitutionality of Water Rights Regulation," 1 U. KAN. L. REV. 125 (1952).

[4] KAN. STAT. ANN. § 82a-716 (1964).

[5] See generally Johnson, "Condemnation of Water Rights," 46 TEXAS L. REV. 1054 (1968).