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Commentary
By Clifford Davis*

The Duties and Rights of Operators Of Water Retention Structures

I. INTRODUCTION

Eastern, or riparian, water law has been concerned primarily with the allocation of a short supply of water.¹ In allocation cases, courts have tried to reconcile the property theory of natural flow (under which downstream owners have a right to have the stream flow undiminished in quantity and quality) and the tort theory of reasonable use (under which upstream owners can diminish the flow of a stream "reasonably" without liability for damages and free of the downstream owners' right to enjoin such diversions). This conflict of theories is traced in the Second Restatement of Torts² and in such cases as Harris v. Brooks³ in which the Arkansas Supreme Court expressly adopted the reasonable use theory to resolve a conflict between a boat rental user who wanted water left in the stream and irrigators who wanted to make diversions of the same water. It has been suggested that Harris v. Brooks may be explained as a minimum level or minimum flow case because the court resolved the conflict by prohibiting withdrawals by the irrigators when the level fell below a stated point.⁴ Even though the reasonable use doctrine was invoked—and presumably permitted diversions—the natural flow theory, and the property theory of natural levels played a limited role in fixing the minimum level.⁵

The following discussion will not be concerned with shortages, but rather with cases in which the natural flow increased due to heavy runoffs, and downstream owners sued the upstream operator

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¹ See generally 7 WATERS AND WATER RIGHTS (R. Clark ed. 1976).
³ 225 Ark. 436, 283 S.W.2d 129 (1955).
⁴ 7 WATERS AND WATER RIGHTS, supra note 1, § 615.2.
⁵ We conclude that the Chancellor should have issued an order enjoining appellees from pumping water out of Horsehoe Lake when the water level reaches 189.67 feet above sea
of a water retention structure alleging that its negligent operation, and not its failure, caused excess waters to overflow their lands.

If natural flow plays a significant role in fixing minimum flows to allocate short supplies, it would be expected that natural flow, even during heavy runoffs, might also play a role in fixing the maximum level (or flow through) that an operator may permit without having to bear responsibility for damages caused by flooding downstream. However, an emerging series of cases involving the management of water retention structures suggests that there is no right to have the natural flow pass through a structure. Under these cases the duties of the operators of water retention structures are being swept into the general expanded duty of care or reasonableness of general tort law despite the fact that the natural flow was swollen by heavy runoffs, or perhaps, more accurately, because the stream was swollen by heavy runoffs. It will be suggested in this commentary that variations in the natural flow, including heavy runoffs into a structure, should be looked to in order to determine the magnitude of permissible releases. That is, the tort issue of negligent flooding should be viewed within a water management scheme that uses natural flow to help fix maximum, as well as minimum, permissible flows through structures.

If, as some of the cases suggest, the duty of the operators of water retention structures is fixed by a pure and general duty of care, then some consideration must be given to the possibility that a tort duty to one set of downstream parties may conflict with the property rights and duties to other sets of persons who may also be affected. The difficult questions of how and by whom these conflicting duties should be resolved, as well as how the conflict of duties can be brought to the attention of factfinders, need careful thought.

level for as long as the material facts and circumstances are substantially the same as they appear in this record. We make it clear that this conclusion is not based on the fact that 189.67 is the normal level and that appellees would have no right to reduce such level. Our conclusion is based on the fact that we think the evidence shows this level happens to be the level below which appellants would be unreasonably interfered with.

225 Ark. at 447, 283 S.W.2d at 135.

6. For cases concerning failures, see notes 26-29 infra.

7. Cases which indicate that the operator of a hydroelectric dam has no duty to operate the dam as a flood control structure (that is, waters flowing in may be passed through) are collected in Baldwin Processing Co. v. Georgia Power Co., 112 Ga. App. 92, 143 S.E.2d 761 (1965). Baldwin is of interest in that it expressly refers to the natural flow theory to support this rule. See also Key Sales Co. v. South Carolina Elec. & Gas Co., 290 F. Supp. 8 (D.S.C. 1968).
Finally, if the duty of the operators of water retention structures is generalized into a broad duty of care, it will be suggested in this commentary that the issues in dispute may shift from negligence to causation.\textsuperscript{8} Harm from variations in natural flow, as well as operator negligence, may be the cause of damages to downstream owners. Also, it must not be forgotten that the fault of the downstream owners, or their predecessors, who have elected to use flood prone areas may be a cause of their own damages.

**II. DISCUSSION**

**A. Duty to “Draw Down”**

*Kunz v. Utah Power & Light Co.*\textsuperscript{9} may well become a leading case establishing a duty to draw down a reservoir when heavy runoff is expected. In *Utah Power*, the operator of a structure defended against downstream flood damage claims by showing that the water leaving the retention structure was equal to or less than the water coming into the structure. The natural flow doctrine would suggest that no liability should attach in such circumstances;\textsuperscript{10} however, the court rejected this theory. *Utah Power* can be explained as a case in which a duty to cut the crest of flooding grew out of the defendant’s prior skimming of the crests of earlier spring floods; having once skimmed spring floods, the utility company had a duty to skim future floods to protect downstream farmers who converted from grass crops that could withstand flooding to crops that could be damaged by flooding.

In the negligent floodings cases the defendant often argues that the structure was not a flood control structure. This may be another way of stating that there was no assumption of a duty to try to minimize the effects of heavy runoff. The holding in *Utah Power* indicates that the prior acts of the operator which control floods are of more importance than either the self-characterization of its operations by the defendant, or the duty of the operator to maximize power generation capacity for its customers, at least to the extent drawdowns were previously made.

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8. Ansley v. Tarrant City Water Constr. & Imp. Dist. No. 1, 498 S.W.2d 469 (Tex. Civ. App. 1973) (take-nothing judgment in suit for flood damages affirmed on the grounds that even though the jury found the acts of the defendant increased the flooding of the plaintiff's lands already subject to flooding, the jury also found that the market value after the construction of the structures complained of was the same as before). *Ansley* shows an interaction of the causation and damage issues.

9. 526 F.2d 500 (9th Cir. 1975).

10. See note 7 *supra*. 
It is not unusual for structures to be multi-purpose. The Corps of Engineers may construct a structure where others contribute to the costs needed to make it larger than needed for flood control so that it can provide storage for fish or be used as a water supply. A portion of the pool, such as the top fifty-three feet, will be designated for flood control and the remaining portion of the reservoir will store water for other users who contributed to the cost of the structure. This was done in the Colebrook River Reservoir in Connecticut where the Corps controls the reservoir and makes releases from the water supply portion upon request. A duty may rest on the Corps to drawdown the flood control portion of the reservoir in anticipation of heavy runoffs, but it would appear that the Corps could not draw down the portion of the pool paid for by others who contributed to the costs of the larger dam. The flood control costs are borne by expenditures from the public treasury, not the water rates paid by the customers of the water supply company, whose funds contributed to the cost of a pool for water supply. One view of the holding in Utah Power suggests that the prior drawdown of the reservoir amounted to a dedication of a specific portion of the pool to flood control purposes. However, it is difficult to envision a dedication of the entire capacity of the structure to flood control purposes. Put bluntly, a duty to draw down a structure should not result in a cost free transfer of storage capacity from the principal purposes of those who paid for its erection to the purposes of those downstream, especially when those complaining of the failure to draw down include persons who have granted the utility flowage easements. Previous drawdowns may themselves be a standard or measure of the portion of the reservoir dedicated to flood control, not an assumption of an unrestricted duty to avoid flooding, even if greater drawdowns could have cut the crest.

Perhaps the result of Utah Power is to "take," within the meaning of the Constitution, reservoir capacity in excess of that previously used for flood control for the private benefit of the downstream owners. No reported case appears to have turned on the taking issue; but water law is a strange mixture of property in its absoluteness, and torts in its flexibility. Perhaps in future cases, if the taking issue is raised, the argument that a given structure

11. The Metropolitan District has contributed to and is entitled to make calls on a portion of the Corps project. See Letter from Albert Helt, Deputy Manager of Water Engineering for the Metropolitan District, to Clifford Davis (Nov. 7, 1977).
12. See notes 18 and 31 infra.
13. The effect of flowage easements granted by some plaintiffs in Utah Power is discussed in the text accompanying note 49 infra.
is not built as a flood control structure may be resolved as a matter of property law instead of tort law.

Intertwined with the duty growing out of prior conduct in *Utah Power* was the issue of whether the heavy runoff was foreseeable. The heavy runoff was deemed foreseeable in *Utah Power*, so that even though the waters released by the utility company did not exceed the waters coming into the reservoir, the pass through of flood water was no defense. This would indicate to plaintiffs seeking to recover in such circumstances, that the key to finding a duty may be establishing the foreseeability of heavy runoff. Even cases which could be cited for the proposition that the operator of a structure has a right to permit waters to flow through or over the dam in such quantities as they flow into it\textsuperscript{14} seem to share a concern with whether the heavy runoff was, or could reasonably have been, anticipated. If it could not have been anticipated, there was no duty to draw down the reservoir.

For the defendant operator concerned that the flows allegedly mismanaged cannot be proven to have been unanticipated, there is a suggestion in *Key Sales Co. v. South Carolina Electric & Gas Co.*\textsuperscript{15} that the correlative duty to protect others, such as upper riparians who will be affected by retarding the flow, may limit the duties owed downstream owners by the operator of a water retention structure.\textsuperscript{16} However, the willingness of courts to see the broad picture and the fact that the management of a structure to suit one plaintiff will adversely affect another may offer no defense as a matter of law. At most, the recognition of conflicting demands on the operator of the structure will suggest a ground for reversing a verdict when the instructions fail to take such correlative duties into account. One line of cases which might be helpful is railroad crossing cases in which the motorist, injured at the crossing, alleged that the train could have stopped sooner, but the court recognized as a conflicting duty, the duty the railroad had to its passengers,\textsuperscript{17} a view with support in at least one leading flood damage case.\textsuperscript{18}

\textsuperscript{14} Many of these cases are collected in *Key Sales Co. v. South Carolina Elec. & Gas Co.*, 290 F. Supp. 8 (D.S.C. 1968).
\textsuperscript{15} Id.
\textsuperscript{16} Id. at 24-25.
\textsuperscript{18} Ark-Mo Farms, Inc. v. United States, 530 F.2d 1384, 1386 (Ct. Cl. 1976) (plaintiffs complaining of flood damage during the period of release of waters retained to cut peak flows were not entitled to recover; the operator's acts caused "little injury in comparison with far greater benefits conferred"; quoting from United States v. Sponenberg, 308 U.S. 256, 267 (1939)).
Other lines of cases involving factually dissimilar situations should not be ignored. Despite cases like *Key Sales* which collect and rely on other flood damage cases, the majority of the decisions involving flood damages from dam operation tend to cite and rely upon negligence cases generally, rather than looking to flood damage cases for guidance.

If, as the holding in *Utah Power* suggests, there is a duty to draw down a reservoir in excess of previous drawdowns when heavy runoffs are expected, and there is no right to allow flood waters coming to pass through, there will be instances when the natural flow is exceeded as the reservoir is drawn down to provide storage for an anticipated heavy runoff, or when it is later drawn down. In *Graham v. City of Springfield*, even though an engineer testified that the drawdown had begun when the rains commenced, the court characterized his testimony as unsatisfactory, and held that it was reasonable to find negligence when a reservoir is drawn down. That is, it may be negligent to release more water than is entering the reservoir.

*City of Springfield* is similar to *Utah Power* in that in both cases downstream farmers had planted flood prone lands and lost crops due to the increased flows. The difference is that in *Utah Power* the crop loss was caused by a flow through of the high runoff, while in *City of Springfield*, the loss was caused by a higher level that resulted from the efforts to cut the crest, even though the crest was actually cut. For operators this creates an interesting dilemma. *Utah Power* suggests that liability can grow out of not drawing down the reservoir to create storage, while *City of Springfield* suggests it may be negligent to draw down a reservoir to create storage!

Similar to *City of Springfield* is *Arkansas Power & Light Co. v. Cash*. In *Cash*, farmers complained that mismanagement of the defendant's reservoirs caused flood waters to remain on their crop lands for forty to forty-five hours when a flow through of the crest would have lasted only a short time. Citing evidence that the damage could have occurred in ten or twelve hours, the court reversed the verdict for the crop owners on the grounds that the evidence did not show the acts of the defendant actually caused the damage. While the decision on causation saved the defendant, there is another possible explanation for the result. It was suggested in the dissenting opinion, which urged that the verdict should stand, that the reservoir manager had two options: "[I]t

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20. 245 Ark. 459, 432 S.W.2d 863 (1968).
could release from the reservoir in the same volume and over the same period in which it fell, thereby permitting a higher, faster and possibly more devastating flood... or it could release less water... and [then] more water... thus... maintaining [the flow] over a longer period of time. The dissent suggested that the defendant was the actor who chose which course of action to follow, and, therefore, was responsible for the damage. This denies the concept of correlative duties, or duties to others than the immediate plaintiffs. One possible explanation for the majority finding the evidence of causation insufficient was that the choice made by the defendant, when confronted with the alternatives posed by the dissent, was a reasonable, responsible choice. If there must be a choice between crop damage or a risk to lives from a higher and faster flood, the choice made by the defendant may have been reasonable. The dissent's argument comes close to stating the argument against liability, unless it could be said that the decision to erect the reservoir was negligent in that the inevitability of the choice was or should have been anticipated.

B. Duty to Warn and Contributory Fault

If the cases are characterized as cases involving the negligent operation of structures and the plaintiffs are characterized as downstream owners who plant or otherwise use flood prone lands, the issue of contributory or comparative fault of the plaintiffs is then raised. In Ford Motor Co. v. Dallas Power & Light Co., a suit in which the plaintiff stored automobiles on flood prone lands, the court addressed the issue of contributory negligence and the doctrine of avoidable consequences. That part of the opinion which stressed the duties of the manager of the structure controlling the flow of waters to the plaintiff, and especially stressed the duty to warn of the danger, suggests that if the manager fails to warn of increased releases, the plaintiff's contributory fault may be excused under a causation analysis similar to that underlying the last clear chance doctrine. The failure to warn could be the sole cause, and the contributory fault of the plaintiff in using the flood prone area

21. Id. at 475, 432 S.W.2d at 861 (Jones, J., dissenting).
22. 499 F.2d 400 (5th Cir. 1974). The duty of the operator to warn of releases from structures is further explored in Chrysler Corp. v. Dallas Power & Light Co., 522 S.W.2d 742 (Tex. Civ. App. 1975) (reversing a summary judgment for the defendant, holding that the fact that the operator was not responsible for the heavy run off which led to the releases did not preclude the existence of a duty to warn lower owners that a large volume of waters would be released through the dam). But see note 50 infra.
23. The dissenting opinion in Dougherty v. California-Pacific Util. Co.,
not a legal cause, although the need for such a humanitarian rule as last clear chance seems slight when the plaintiff is a major auto manufacturer as was the case in *Ford Motor*. In another case, the failure of a plaintiff to erect protective structures has been held to be contributory negligence.\(^{24}\)

The duty of the operator of a retention structure to warn of the danger as stated in *Ford Motor* may be limited to cases in which the user of the flood prone lands calls the operator and asks for information about possible flooding. At the least, *Ford Motor* suggests that the duty is strongest in such circumstances. Practical problems could arise if the duty to warn is not limited in some way. Even the manufacturer of a product with duties to warn seems to have a better chance to meet that duty than the operator of a structure suddenly confronted with weather reports predicting a heavy runoff in the watershed. It is also as likely that weather predictions could be available to the persons interested, although, as anyone who has ever planned a picnic knows, they do not guarantee what is predicted, and often are stated as a probability rather than a flat prediction.

C. Feasibility and Foreseeability

The analogy of the operator of a water retention structure to the product manufacturer cannot only be seen in the argument that both have duties to warn of impending dangers, but can also be seen in that both may deal with the issue of whether a certain action is feasible. Although the issue in *Rylands v. Fletcher*\(^{25}\) is beyond the scope of this commentary, the cases which allow recovery based on defective design of structures, such as the design and capacity of the spillway in *Barr v. Game, Fish & Parks Commission*\(^{26}\) and *Dye v. Burdick*,\(^{27}\) may go to the issue of feasibility, that is, whether it is feasible to build and design spillways with the capacity necessary to handle extremely heavy runoffs. Cases such as *Bowling v. City of Oxford*,\(^{28}\) in which evidence of leaks preceding the breaking of an earthen dam were sufficient to warrant the reversal of a nonsuit, seem analogous to defective product cases in the area of products liability.

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546 P.2d 880, 884 (Utah 1976), refers to this rationale as use of a "back handed last clear chance." See note 41 and accompanying text infra.

27. — Ark. —, 553 S.W.2d 833 (1977).
The traditional defense for operators has been the Act of God doctrine. This doctrine continues to have application where the rainfall is twice the maximum rainfall expected in 100 years. But to state the case in which the doctrine can be used is to describe its limitations. The duty of foreseeability described in Diamond Springs Lime Co. v. American River Constructors, undercuts the Act of God doctrine, unless the negligence is governmental and thus immunized.

It was suggested above that the design of a structure, especially its spillway, may require some appraisal of the foreseeable runoff into the reservoir as a test of the sufficiency of the design. Virtually all the cases cited up to this point have dealt with the issue of whether the management of flows was reasonable in view of the anticipated runoff. But to state the case as Ford Motor does, sweeping all the issues into the ultimate one of reasonableness, and citing the Restatement of Torts, is to leave the manager of the structure and the downstream owners with little or no guidance. Every time the operation of a water retention structure succeeds in skimming crests of floods the downstream owners can say they relied on there being no future floods. Yet the downstream owners use of the flood prone lands may create a risk of damages as foreseeable by them as by the operator of the structure. Under these circumstances if damage occurs, litigation is inevitable. When there are such damages and lower owners are "passive," the chances are that the tendency of courts noted by Grant Gilmore to shift losses from passive to active sectors of society, will come into play and

29. Frank v. County of Mercer, 186 N.W.2d 439 (N.D. 1971) (Act of God defense successfully asserted by defendant in suit alleging bridge and abutments were negligently constructed).
Cf. Lange v. Town of Norway, 77 Wis. 2d 313, 253 N.W.2d 240 (1977) (governmental immunity does not reach the operation of the structure).
32. See notes 26-30 and accompanying text supra.
33. Restatement of Torts § 825, Comment a (1938) (intentional invasion defined) (quoted in Ford Motor Co. v. Dallas Power & Light Co., 499 F.2d 400, 410 (5th Cir. 1974)).
34. Gilmore, Products Liability: A Commentary, 38 U. Chi. L. Rev. 103 (1970), describes a shift to give relief to passive parties against active parties as a process in which plaintiffs barred from recovery under contract doctrines shift to more open tort doctrines to gain relief. Perhaps cases such as Utah Power show a shift to tort from property as well as contract (at least as far as the plaintiffs who gave flowage easements were concerned) in order to fashion a remedy for those who want to use flood prone areas free of the risks of flooding.
relief may be granted on the active-passive distinction and not negligence.

One of the most interesting cases that may be explained by the "active-passive" theory involved home owners on flood prone lands who recovered from overflows of irrigation canals. In Salt River Valley Water Users Association v. Giglio,35 homeowners who purchased houses in a floodplain sought and recovered damages using the theory that inadequate spillways were provided for irrigation canals thus causing flooding. The case involved an unusual rainfall of the magnitude of a 100 year storm, yet this fact apparently played no part in the decision. From a tort point of view the issue of foreseeability appears to have been submerged in the issue of feasibility, for example, in the failure to provide adequate spillways. The case is of interest in the area of land use, because the defendant who acquired the canals also acquired liability for their maintenance, but the homeowners did not have to bear the responsibility for placing their houses in the floodplain. The theory of vicarious responsibility which seems to apply where a defendant acquires a structure, arguably suggests that if the builder of the home could not be joined as a defendant,36 then the plaintiffs should be required to bear the fault of their predecessor in title.

In a search for standards for the management of flows from a structure located where heavy runoffs can occur, the focus of the courts on the broad standard of reasonable care and the determination that it is feasible to completely draw down a given structure though it might increase rates to electric consumers,37 suggests another tort analogy. Doctors have long been held to the standards of their profession, perhaps first in their own locality, and then over a broader area.38 Perhaps a rational standard for the managers of water structures should be that of their professional counterparts, especially those in their own area. With the power of hindsight, the plaintiff in Utah Power could have alleged that other actions might have been taken; but the issue was negligence, and not feasibility, as in products liability. If the issue is reasonableness of operation and not feasibility,39 the testimony of other managers40 would offer a guide in the search for standards.

35. 113 Ariz. 190, 549 P.2d 162 (1976).
36. Id.
37. See Kunz v. Utah Power & Light Co., 526 F.2d 500 (9th Cir. 1975).
40. Morris, The Role of Expert Testimony in The Trial of Negligence Is-
A case superficially similar to *Utah Power*, which involved the duty to draw down to prevent flooding caused by a heavy runoff of surface waters into a power company canal, merits comparison. In *Dougherty v. California-Pacific Utilities Co.*, the court affirmed a recovery of $896.27 for flooding damages, applying what appeared to be a test of feasibility. In *Dougherty* it was possible to draw down the canal that flooded, and this possibility was cited to uphold the verdict. The concurring opinion called the majority’s action the “pulling [of] a reasonable prudent rabbit out of a judicial top hat,” but it is possible that the concurring judge was noting that the majority shifted to a test of feasibility in a situation that should have been governed by “reasonableness.” This would be consistent with the conclusion of the dissent that there was not only no negligence, but no causation. At the least, the dissent raises the question of what standards should apply—reasonableness, or failure to do what is feasible. There might well be cases in which lay testimony and the reasonable prudent juror can conclude that it is negligent to draw down a reservoir when water is not entering it, as was suggested in *City of Springfield*. However, noted in that opinion was the absence of expert testimony from others responsible for water management in the area. Testimony that the acts of the operator in *Utah Power* fell below the customary standard of care should have had the effect of giving pause to the second guessing by downstream owners who argued that the sole responsibility of the operator is toward them. Even in structures built by the Corps of Engineers for the primary purpose of flood control, the demands of recreational users that the pool be raised for recreational uses involve a difficult decision as to exactly where that level should lie so that both interests can be accommodated.

The complaints by plaintiffs in medical malpractice actions about the dangers of a professional standard also apply to any suggestion that the acts of operators should be tested by a professional standard, especially a locality standard. However, such a guideline for the jury would focus the issue of negligence in operation far better than the broad standard of care in the ordinary charge, where damage from one method of fixing discharges almost implies that there is a duty to have used the other alternative, or some other alternative.

41. 546 P.2d 880 (Utah 1976).
42. *Id.* at 884 (Henroid, C.J., concurring).
43. *Id.* (Ellett, J., dissenting).

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In the search for ordinary tort analogies, especially where the force that causes the injury comes from nature, the second-collision cases will inevitably be looked to for guidance. Perhaps the apportionment of damages among the various sources of harm in proportion to respective degrees of fault and causation suggests a method of attempting to make the measure of true damage attributed to the operator more realistic. Johnson & Johnson v. Dundass, held that a defendant adding to the waters of a stream already overflowing its banks, was justly held liable for only thirty percent of the damages.

A final aspect of Utah Power is that the court held that even those lower owners who had given flowage easements to the utility company were entitled to damages for negligent flooding. Many scholars are concerned with the possibility that some of the risks of expanded duties of "care" in the broadest possible sense create risks of expansions in the number and size of claims and are considering the ways that such claims can be limited by contract. The holding of Utah Power bars the freedom to contract for limitations of liability.

Faced with the same problem, whether a flowage easement purchased by an operator of a structure from a lower owner later flooded is a defense to a charge of negligent flooding, the New Hampshire Supreme Court remanded the issue. The answer of Utah Power may be too facile. It would appear to allow the lower owner to obtain money damages for flooding or flowage easements, then to jump on the bandwagon of reliance on the structure not flooding to obtain more money. The primary objection to Utah Power is that it cuts the ground from under any negotiated attempt to restrict the exposure of the operator of the structure. Further, if it can be assumed that the seller of a flowage easement has received a payment based in part on loss of value due to the fact that crops easily damaged by overflows cannot be grown, recovery by the owner of the lands subject to the flowage easement or flood damages for loss of crops planted in lands subject to the easement

44. Huddel v. Levin, 537 F.2d 726 (3d Cir. 1976), might be referred to when considering the problem of ultimate responsibility for preventing injury in the event another force initiates the series of events that culminate in an injury, allegedly through the fault of an intermediary.
46. See Street, Supervening Events and the Quantum of Damages, 78 L.Q. Rev. 70 (1962).
is but another example of the "dog-in-the-manger" aspect of water law. It seems inconsistent to require condemnation of lands to be flooded and then permit the owner of such lands to sue for negligent flood damage.

III. CONCLUSION

The easiest standard for flood damage cases brought against the operators of water retention structures would be that of the natural flow. Yet given that any operator of a retention structure has power to act, that power brings forth a duty to act. In the search for a generalized guide to the resolution of all tort actions it is then easy to sweep the cases into the generalized duty of reasonable care. If the natural flow of the stream helps set the minimum flows and operators are obliged to pass along, then the natural flow of a stream, including freshlets and occasional heavy runoffs, should play a role in fixing a permissible maximum flow. The reasonable duty of the operator might be to cut the crest, or distribute the higher flow over a longer period, but courts should take care not to demand that the crest be cut and higher than normal release not be made at other times. Further, the test of reasonableness should not become a test of whether it was feasible to avoid passing along some higher than normal flows by saying it was possible to have provided storage capacity and made alternate release patterns. Perhaps the standard for water structure management should be that of other professionals in the area. The engineer responsible for streamflow management is no less a professional than the doctor treating a patient. Further, the Restatement indicates that it is general knowledge that heavy rainstorms produce floods in mountain streams. In such cases the liability for damages should be apportioned, and such general knowledge should bear on whether an operator of a water retention structure has a duty to warn others.


50. There may be statutory regulations of drawdowns. In Maine the Soil and Water Conservation Commission, either on its own motion or by petition, may conduct public hearings to establish normal water levels. Me. Rev. Stat. tit. 12, § 304.1 (Supp. 1977). See also id. § 304.4 (providing that the order requiring maintenance of a stable level "shall include provision for variations in water level to permit sufficient draw down . . . to accommodate precipitation and runoff").

51. Restatement (Second) of Torts § 290, Comment e (1965): "Every man should realize that heavy rainstorms are likely to produce floods in mountain streams."
Finally, the mechanical view of *Utah Power* that one cannot contract against the effect of his own negligence needs to be reconsidered. Had the plaintiffs in *Utah Power* proceeded on a "taking" theory the plaintiffs who did not give flowage easements might well have lost but those who did give flowage easements unquestionably would have lost.

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52. See Ark-Mo Farms, Inc. v. United States, 530 F.2d 1384 (Ct. Cl. 1976).
53. But see City of Kings Mountain v. Goforth, 283 N.C. 316, 196 S.E.2d 231 (1973) (directed verdict for condemning authority reversed and condemnees allowed to proceed on cross action for flood damages on a negligence theory).