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Peter N. Davis
DavisPN@missouri.edu

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LAW OF REPELLING FLOODS IN MISSOURI

by Peter N. Davis

Two events in 1993 affected the law of repelling floodwaters in Missouri. The first was the Great Flood on the Missouri River. The second was a pair of decisions, Heins Implement Co. v. Missouri Highway & Transportation Comm’n in August by the Missouri Supreme Court and Campbell v. Anderson in October by the Missouri Court of Appeals. They held that Missouri henceforth will apply the comparative reasonableness rule to drainage waters and floodwaters rather than the common enemy rule followed for the past 110 years. This article will discuss how that change in rule will affect the rights and liabilities of landowners building levees to repel floodwaters. In particular, it will examine whether the change in rule will affect where levees can be built in the future.

This article first will address the law of repelling floodwaters nationally and in Missouri. That law focuses on two questions, what waters are subject to the law of floodwaters, and what rules apply to floodwaters.

Then this article will examine what changes in levee design standards and location will be required by the change in rule. The typical case using this law involves two landowners, one of whom builds a levee which diverts or pens back floodwater onto the land of the other.

National Law

Definition of Floodwaters

There is a considerable variation between the states in the definition of floodwaters. Some states define floodwater as overflow from a stream or watercourse. Some states treat floodwaters in the flood channel or floodway as part of the stream. Some states require that the flood overflows remain connected to the water in the natural channel. Other states require that the overflow be separated from the water in the natural channel. Those contradictory definitions represent the endpoints on the spectrum of floodwater definitions. Other states, including Missouri, merely require that floodwaters be flowing beyond the banks of the stream or watercourse.

Drainage water is defined negatively as water outside the channel of a watercourse and affirmatively as water flowing over the surface of the ground. Drainage water flows occasionally only after rains or snowmelts. Missouri accepts that definition of drainage water.

Floodwaters are distinguished from drainage water by being waters which have left a watercourse, rather than being water which has yet to enter a watercourse. Some states hold that such floodwaters retain that status even if they become separated from the natural channel, while others hold that once separation has occurred, the floodwaters become drainage waters. Like some states, Missouri has always applied the same rule to both drainage waters and floodwaters, so it has never attempted to define floodwaters or to distinguish between them and drainage waters. The Heins and Campbell decisions dramatically alter the common law rule applying to drainage waters and floodwaters.

Drainage Rules

The American states have developed three alternative rules for dealing with drainage waters, the common enemy rule, the civil law rule, and the comparative reasonable

1 © 1995 Peter N. Davis. Isidor Loeb Professor of Law, University of Missouri-Columbia; B.A. 1959, Haverford; LL.B. 1963, S.J.D. 1972, University of Wisconsin. Member of Bars of Missouri, Wisconsin, District of Columbia, U.S. Supreme Court, and U.S. Patent & Trademark Office. This article was previously published in an earlier version in the Proceedings of the 4th Annual Water Quality Conference 1-17 (Mo. Agric. Expt. Sta., Univ. of Missouri-Columbia, Feb. 3, 1994). I wish to thank Margaret Toalson and Rayford Chambers of the University of Missouri-Columbia School of Law for their research assistance on this article.
2 859 S.W.2d 681 (Mo. 1993).
3 866 S.W.2d 139 (Mo. Ct. App. 1993).
5 Everett v. Davis, 115 P.2d 821 (Cal. 1941).
10 See, e.g., Atchison, T. & S.F. Ry. v. Taylor, 87 F.Supp. 313 (E.D. Mo. 1949); Anderson v. Inter-River Drainage & Levee Dist., 274 S.W. 448 (Mo. 1925); Schaik v. Inter-River Drainage Dist., 226 S.W. 277 (Mo. Ct. App. 1921).
12 Peck v. Harrington, 109 Ill. 611 (1884); Fryer v. Warner, 29 Wis. 511 (1872); RESTATEMENT (SECOND) OF TORTS § 846 (1979).
13 Happy v. Kenton, 247 S.W.2d 699 (Mo. 1952).
15 Id.
17 See, e.g., Honey v. Bertig Co., 150 S.W.2d 214 (Ark. 1941); Marshland Flood Control Dist. v. Great Northern Ry., 428 P.2d 531 (Wash. 1967).
use rule. As will be discussed below, Missouri switched from the common enemy rule to the comparative reasonable use rule in 1993. This section discusses the three drainage rules of the United States.

Common enemy rule. The common enemy rule conceives that drainage water is a scourge which each landowner is entitled to remove by any physical means available. Hence, each landowner may deal with, dispose of, block, or divert diffused surface water in any manner as he sees fit, without legal liability for the injurious consequences to his neighbors’ lands. This gives the upper landowner the right to discharge drainage water and then discharge it onto servient land. With that limitation, the rule has become known as the modified common enemy rule. Note also, that silt carried by drainage water and deposited on land is treated as a trespass, not under the common enemy rule.

Civil law rule. The civil law rule was adopted in some states to avoid the harshness of the common enemy rule. It provides that drainage must be allowed to follow its natural directions. The upper landowner is not allowed to redirect drainage artificially, and the lower landowner is forbidden to obstruct natural drainage. Hence, each upper landowner has a servitude or implied easement over the lower landowner’s land. The purpose of the civil law rule is to preserve the natural drainage pattern and to prohibit landowners from taking unfair advantage of each other. The civil law rule in the United States is derived from the French Civil Code and originated in Louisiana. To avoid impractical rigidity and to allow some development, some civil law rule states have allowed small alterations in the natural drainage pattern, such as draining small ponds and substituting artificial drains for natural ones. Seventeenth century common law continues to follow the civil law rule.

Comparative reasonable use rule. In the second half of the twentieth century, American states have been shifting away from the common enemy and civil law rules. The courts find the common enemy rule too lenient and the civil law rule too rigid in their unmitigated forms. They find that modifications to both rules point toward the reasonableness and flexibility of the comparative reasonable use rule. Under the comparative reasonable use rule, each landowner is allowed to dispose of, block, or divert drainage in ways which do not unreasonably


38 Code Napoléon art. 640 (1804) (am. ed. 1841); Orleans Nux. Co. v. Mayor of New Orleans, 2 Mart. 214 (La. 1813).

39 Martin v. Pett, 12 La. 501 (1838); Harbison v. City of Hillsboro, 204 P. 613 (Or. 1922); La Fleur v. Klotz, 22 N.W.2d 741 (S.D. 1946).


31 See Graham, supra note 19, at 236.
interfere with the use of his neighbor's land. The rule compares the benefits and hardships caused by a change in the natural drainage pattern. If the hardships are unreasonable under all the circumstances, there is liability. The comparative reasonable use rule was adopted by some states beginning in the early 20th century to avoid both the hardships imposed by the common enemy rule and the rigidities of the civil law rule. It has been accepted by the Restatement (Second), Torts. Factors considered in making the reasonableness comparison recited by various cases include: the respective uses of land and drainage water by each party, topography, volume and direction of drainage, consequences of drainage, effects of artificial changes in drainage, such as grading, hard surfaces, and artificial drains, alternatives, and avoidance of unnecessary injury. Twenty-one jurisdictions besides Missouri have adopted the comparative reasonable use rule.

Application of Surface Watercourse and Drainage Water Rules to Floodwaters

Some states apply riparian rights rules to flood waters; other states apply drainage water rules to floodwaters. Which rules are to be applied to floodwaters depends in part on the state's rule determining whether the floodwaters are considered to be part of the stream. The states fall into two basic groups, those which treat floodwaters as part of the watercourse, and those which treat them as drainage waters. The choice of rule in some states is affected by whether the overflow waters are from "ordinary" regularly-occurring floods or "extraordinary" rarely-occurring floods. Floodwaters are part of watercourse. Many states treat ordinary regularly-occurring floodwaters as part of the waters in a stream or watercourse and apply the comparative reasonable rule under the riparian rights doctrine or the civil law of drainage. A few will apply watercourse rules even if those floodwaters become separated from the stream. Those states do not apply drainage rules, such as the common enemy rule, to those floodwaters. However, others apply the common enemy drainage law rule to ordinary regularly-occurring floodwaters which have become disconnected from the stream.

Floodwaters are drainage waters. Some states treat floodwaters similarly to drainage waters. Some of them apply their drainage water rules only when the floodwaters become separated from the stream or watercourse. Other states apply their drainage law rules to floodwaters outside the banks of streams even when they remain connected to the stream or watercourse. Some states apply the common enemy rule only to extraordinary rarely-occurring floodwaters.
whether or not the floodwaters remain connected to the watercourse.\textsuperscript{45}

\textit{Act of God defense.} Some states, which ordinarily do not treat floodwaters as subject to the common enemy rule, will deny liability when flood damages result from such a severe flood as to be called an "act of God."\textsuperscript{46} An "act of God" is a natural event, such as a flood, of such large magnitude that it could not be predicted from historic experience.\textsuperscript{47}

\textbf{Missouri Law}

\textbf{Prior Law: Common Enemy Rule}

\textit{Drainage waters.} Missouri applied the common enemy rule to drainage waters, subject to the accumulation and discharge limitation, between 1874 and 1993. The usual formulation and interpretations of the rule were followed in Missouri.\textsuperscript{48} However, it imposed liability for silt deposited by drainage water.\textsuperscript{49}

\textit{Drainways.} Missouri applied a special rule to drainage waters in drainways. It forbids obstruction of drainage waters flowing in drainways and allows use of drainways for disposal of drainage waters up to their natural capacity without interference.\textsuperscript{50}

\textit{Floodwaters.} Floodwaters in Missouri were subject to the common enemy rule in the same fashion as drainage waters, allowing a landowner to ward them off by constructing levees. No liability resulted from repelling floodwaters to the injury of neighbors.\textsuperscript{51} Missouri applied the common enemy rule to floodwaters more extensively than most states. The common enemy rule applied whether or not the floodwaters remained connected to the stream or watercourse.\textsuperscript{52}

Repelling floodwaters under the common enemy rule was subject to the same accumulation and discharge limitation that applied to drainage waters.\textsuperscript{53}

\textbf{New Law: Comparative Reasonableness Rule}

\textit{Drainage waters.} The Missouri Supreme Court dramatically changed the rule applying to drainage waters in 1993. It did so in a case involving an inadequately-sized highway culvert opening. \textit{Heins Implement Co. v. Missouri Highway & Transportation Commission}\textsuperscript{54} held that the common enemy rule had long outlived its usefulness and replaced it with the comparative reasonableness rule. It did that for several reasons. First, literal application of the rule worked egregious and arbitrary results.\textsuperscript{55} Second, the accretion of modifications and limitations on the application of the rule caused it to drift toward the comparative reasonable use rule.\textsuperscript{56} Third, the comparative reasonableness standard has been adopted in Missouri for the other two classes of water, surface watercourses and percolating groundwater, uniformly among all three classes of water is desireable.\textsuperscript{57} Fourth, other states gradually have been switching to the comparative reasonableness rule and it has become the dominant rule in the United States today.\textsuperscript{58}

Stating that "reasonableness is a question of fact, to be determined in each case by weighing the gravity of the harm to the plaintiff against the utility of the defendant's conduct",\textsuperscript{59} the court concluded, Perhaps the rule can be stated most simply to impose a duty upon any landowner in the use of his or her land not to needlessly or negligently injure by surface water adjoining lands owned by others, or in the breach thereof to pay for the resulting damages.\textsuperscript{60}

It considers the new rule "as the one most likely to promote the optimum development and enjoyment of land, while ensuring that their true costs are equitably distributed among the competing interests at hand."\textsuperscript{61}

Applying the new rule, the court found that defendant had attempted to determine drainage flows in the area and that it had been negligent in seeking relevant information. Hence, it had failed to learn about historic drainage flows there, information that was readily available.\textsuperscript{62} In adopting the

\textsuperscript{45} See, e.g., Cubbins v. Mississippi River Comm'n, 241 U.S. 351 (1916); Wellman v. Kelley, 252 P.2d 816 (Or. 1953); McNeill v. Spanish Fork City, 305 P.2d 1097 (Utah. 1957).


\textsuperscript{47} Millard Farms, Inc. v. Sprock, 829 S.W.2d 1 (Mo. Ct. App. 1991); Hansen v. Gary Naugle Constr. Co., 801 S.W.2d 71 (Mo. 1990); Hail v. County of Atchison, 793 S.W.2d 151 (Mo. Ct. App. 1990); M.H. Siegfried Real Estate v. City of Independence, 649 S.W.2d 893 (Mo. 1983); Looney v. Hindman, 649 S.W.2d 207 (Mo. 1983) subject to "due care" and "collection and discharge" modifications; Wells v. State Highway Comm'n, 503 S.W.2d 689 (Mo. 1973); Hafertkamp v. City of Rock Hill, 316 S.W.2d 620 (Mo. 1958); Happy v. Kenton, 247 S.W.2d 698 (Mo. 1952); Casanova v. Villanova Realty Co., 209 S.W.2d 556 (Mo. 1948); Abbott v. Kansas City, St. & C.B. RR., 83 Mo. 271 (1884); McCormick v. Kansas City, St.J. & C.B. RR., 197 Mo. 433 (1874). See generally, Davis, Missouri, in \textit{6 Water and Water Rights} 237, 243-45 (R. Beck ed. 1991, supp. 1993).


\textsuperscript{49} Brown v. H & D Duenne Farms, Inc., 799 S.W.2d 621 (Mo. Ct. App. 1990); Schlub v. Monsanto Co., 782 S.W.2d 419 (Mo. Ct. App. 1989); Sankraveni v. Vaughn, 610 S.W.2d 399 (Mo. Ct. App. 1980); Dudley Special Road Dist. v. Harrison, 517 S.W.2d 170 (Mo. Ct. App. 1974); Camden Special Road Dist. v. Taylor, 495 S.W.2d 93 (Mo. Ct. App. 1973); City of Hardin v. Norborne Land Drainage Dist., 360 Mo. 1112, 232 S.W.2d 921 (Mo. 1950); Atchison, T. & S.F. Ry. Co. v. Taylor, 87 F.Supp. 313 (E.D. Mo. 1949); Keener v. Sharp, 95 S.W.2d 648 (Mo. Ct. App. 1930); Sigler v. Inter-River Drainage Dist., 279 S.W. 50 (Mo. 1923); Anderson v. Inter-River Drainage & Levee Dist., 274 S.W. 448 (Mo. 1925); Gall v. Chicago & Alton Ry., 197 S.W. 244 (Mo. 1917).

\textsuperscript{50} See id.

\textsuperscript{51} Blackburn v. Gaydon, 245 S.W.2d 161 (Mo. Ct. App. 1951).

\textsuperscript{52} 859 S.W.2d 681 (Mo. 1993).

\textsuperscript{53} Id. at 689. The court commented, the practical consequence of adherence to this rule has been described as "a neighborhood contest between pipes and dikes from which "breach of the peace is often inevitable."" Id.

\textsuperscript{54} Id.

\textsuperscript{55} Id. at 691, citing Bollinger v. Henry, 375 S.W.2d 161 (Mo. 1964) (surface watercourses); Higdon v. Nicklaus, 469 S.W.2d 859 (Mo. Ct. App. 1971) (percolating groundwater).

\textsuperscript{56} Id., 859 S.W.2d at 690, n. 13, citing a host of cases. States which have adopted the comparative reasonableness rule are listed, supra note 36.

\textsuperscript{57} Id. at 689.

\textsuperscript{58} Id. at 690.

\textsuperscript{59} Id. at 691.

\textsuperscript{60} Id. at 684, 686, 691.
reasonable use rule, Missouri is following a trend in the United States towards that rule and away from both the common enemy rule and the civil law rule.

Floodwaters. Shortly after Heins was decided, the Missouri Court of Appeals extended the comparative reasonable use rule to floodwaters. It did so in a case involving flooding from a private stream rechannelization project. Campbell v. Anderson held that the new comparative reasonable use rule should be applied to floodwaters because the Heins decision stated that a uniform rule should be applied to all classes of water in Missouri. Although Campbell is somewhat confusing because the court failed to designate the class of water involved, its discussion of the issue of retroactive application of the new Heins rule would make no sense if the court had considered the flooding to be the result of an obstruction or alteration of a watercourse; the comparative reasonable use rule has always applied to watercourses under the riparian rights doctrine. By implication, the waters in Campbell must be floodwaters. Therefore, Campbell extended the application of the comparative reasonable use rule under Heins from drainage waters to floodwaters.

Campbell has three effects. First, it abolishes the nonliability or immunity created by the common enemy rule. Second, it restores the judicial policy of prior cases of applying the same rule to both drainage waters and floodwaters. Third, it forces a reexamination of design standards for siting and construction of levees. No longer can a landowner assume that there will be no liability regardless of where or how high a levee is built.

Impact of New Rule on Landowner Practice

This article will now reexamine the siting and design standards for levees in light of Missouri's adoption of the comparative reasonable use rule by Heins and Campbell. Since, of course, there are no flooding cases decided in Missouri other than Campbell, we must look at flooding cases in other comparative reasonable use rule states for enlightenment.

Research reveals a few flooding cases decided in other comparative reasonable use rule states. They fall into two groups: (1) flooding from blocked drainage ditches, and (2) flooding from streambank levees preventing overflow across land. Both groups of cases compare the damage caused to plaintiff by the flooding with the utility and benefits to defendant resulting from blocking the ditches or building the levees. There is no analysis of cases involving ponding from surface drainage obstructions and discharge of concentrated surface drainage.

Blocked drainage ditch cases. In Duevel v. Jennissen, defendant constructed a drainage ditch into which his farm tile drain field drained. The drainage ditch led across plaintiff's land. Defendant could farm an additional 50 acres with no harm to plaintiff. Later, plaintiff constructed a similar system. Instead of using the drainage ditch for the discharge from his own and defendant's drain fields, he blocked the drainage ditch leading from defendant's land and installed an 8-inch inlet and a pump to remove his own and defendant's drainage into the river. Plaintiff also built a dike between his and defendant's land. When the pump broke down, drainage backed up onto defendant's land, flooding about 50 acres and causing crop loss. Then the dike broke, flooding plaintiff's land as well. Plaintiff sued to enjoin the flooding from defendant's land and defendant counterclaimed for obstruction of the drainage ditch. The court affirmed the finding of the trial court that defendant's system was reasonable under the comparative reasonable use rule, and that plaintiff's blocking the ditch was not reasonable because his system was inadequate to handle the combined drainage flows.

In so deciding, Duevel recited four guidelines for applying the comparative reasonable use rule to drainage:
(a) There is a reasonable necessity for such drainage;
(b) If reasonable care be taken to avoid unnecessary injury to the land receiving the burden [of the drainage water];
(c) If the utility or benefit accruing to the land drained reasonably outweighs the gravity of the harm resulting to the land receiving the burden;
(d) If, where practicable, it is accomplished by reasonably improving and aiding the normal and natural system of drainage according to its reasonable carrying capacity, or if, in the absence of a practicable natural drain, a reasonable and feasible artificial drainage system is adopted.

The court noted that the rule cannot be reduced to a cut-and-dried formula. What is a reasonable use is determined by the particular facts of each case.

In Pearce v. Pearce, defendant proposed to block several natural sloughs and drains, causing the drainage water to be diverted onto plaintiff's land after heavy rains. The court of appeals affirmed an injunction against construction of the defendant's proposed dike on the ground that it was unreasonable for him to divert the heavy drainage without providing means to mitigate the flooding that would result.

Levee cases. There are a few levee cases, which divide in result.

Cases holding levees reasonable. In AALSO v. Leslie Salt Co., levees were constructed by the early 1950s by defendant around its salt evaporating ponds along the shore of San Francisco Bay. These levees protected the bayside city of Alviso from the tides. The city was located below sea level because of subsidence resulting from groundwater withdrawal. During very unusually heavy rains in 1983, the city was flooded by

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63 866 S.W.2d 139 (Mo. Ct. App. 1993).
64 Id. at 144.
65 Id. at 144-45.
66 Since the trial court had reached its decision under the common enemy rule before Heins had been decided, the Campbell court remanded the case for evidence on the issue of comparative reasonableness. Id. at 145.
67 See supra note 51.
68 These are the typical situations in classic surface drainage cases.
70 Id. at 96, citing Enderson v. Kelehan, 32 N.W.2d 286, 289 (Minn. 1948).
71 Duevel, 352 N.W.2d at 96.
rainwater overflowing from a creek and ponding behind the levees. A class action was brought by damaged property owners against defendant. The trial court granted summary judgment to defendant on the ground that the levees were reasonable and this it had no affirmative obligation to prevent flooding caused by major rains. The court of appeals affirmed, stating additionally that the public benefited from the bird habitat provided by the ponds and that the government should be responsible for constructing necessary major storm drainage works.

**Cases holding levees unreasonable.** In *Tahan v. Thomas*, defendant constructed a levee to protect his land from river overflows that occurred every 2 or 3 years. Twenty years later, the state constructed a highway which breached the levee. Plaintiff purchased land nearby in 1965 and relied on the fact that floodwater would flow through the breach and, therefore, would not flow onto his own land. During a flood in 1967, defendant constructed a temporary dike across the highway to close the levee breach. Plaintiff’s land was flooded as a result. The trial court granted summary judgment to defendant in plaintiff’s suit for damages. The court of appeals reversed, holding that, while defendant could construct levees on his own land, it was unlawful for him to construct a temporary dike on a public highway. It found defendant’s actions unreasonable.

**Levee cases not reaching a decision on the merits.** In *Linville v. Pareno*, defendant’s levee on the same side of the river as plaintiff’s land blocked the flow of floodwater across defendant’s land and caused floods to concentrate its overflow over plaintiff’s land, increasing erosion damage. Expressly rejecting the common enemy rule applied by the trial court, the court of appeals held the utility of the conduct should be weighed against the gravity of the harm, and remanded the case for a new trial.

In *Gilmer v. Board of Commissioners of Marshall County*, a farmer constructed a levee parallel to a low-lying rural road to prevent rainwater from flowing from the road onto his fields. The county had insufficient funds to construct a drainage ditch along the road. The levee caused water to pond on the roadway after heavy rains. After the county obtained a temporary injunction requiring the farmer to cut his levee, six acres of his field were flooded, causing crop loss. The farmer sued to dissolve the temporary injunction. Expressly rejecting the common enemy rule, the court of appeals adopted the comparative reasonable use rule. It held that the trial court’s refusal to dissolve the injunction was an abuse of discretion and remanded the case for further hearings.

**Riparian rights levee cases.** Many states apply the riparian rights doctrine of surface watercourses to the construction of levees along streams. These cases are more instructive than the drainage water law cases. Under the comparative reasonable use rule of riparian rights, riparian owners may protect their lands from occasional flood overflows by constructing bankside levees. But the owner has no right to protect his land from flood overflows by constructing bankside levees if they would cause deflection of an unreasonable amount of overflow waters from ordinary floods, significantly damaging the lands of other riparians. That means the levees should be placed to avoid causing erosion, destruction or injury to other riparian lands. In “battle of the levees” cases, one riparian may construct levees to repel floodwaters deflected by another riparian’s levees. Those levee cases imply that the floodplain, floodway, or flood channel are considered to be part of the watercourse itself, and some of them so hold. Some of these cases found the bankside levees to be reasonable. Other cases found the levees to be unreasonable. Since the comparative reasonable use rule is the same for riparian rights and drainage water, the surface watercourse cases presumably apply it identically to the drainage water rule cases.

**Analysis.** These cases all weigh the utility of the conduct against the gravity of the harm. The comparative reasonable use rule suggests that landowners may repel floods by constructing levees or by diverting the flow in drainage ditches, but that the flooding which results or is increased elsewhere must not be unreasonable. A landowner located in an area prone to flooding must expect some flooding and may take actions to reduce it, such as by building levees, provided other landowners are not subjected to significant increases in flood risks or damage. The cases do not enable a more precise statement of the reasonableness balance than that.

**Application of new rule to new levees.** New levees will be subject to the comparative reasonable use standard in unmitigated form, since the new rule antedates their
The cost of relocation would be much greater than the cost of repair in place. However, levees which have been so extensively damaged that they must be reconstructed probably will lose grandfather rights and will be subject to the new rule.  

**Drainway rule.**

Missouri probably will retain the rule that a drainway cannot be obstructed; it might allow some overflow of the natural capacity of drainways, if the overflow is not unreasonable. The reason is the policy of the rule, that the upper landowner has a reasonable expectation that the natural drainage through the drainway will not be interrupted. That expectation was protected by the prior law, and is a reasonable expectation.

**Act of God defense.**

The Act of God defense for extraordinary floods has been applied only in drainage cases in civil law states and in surface water course cases under the riparian rights doctrine. The Act of God defense, in effect, applies the common enemy rule to such floods. There are no Act of God cases in drainage water cases under the comparative reasonable use rule. Since the civil law rule and the comparative reasonable use rule both restrict alterations to the drainage pattern, exempting extraordinary floods from the usual liability rule could be applied analogously to the comparative reasonable use rule drainage cases. Nonetheless, we cannot predict whether the Missouri courts will retain the common enemy rule for extraordinary floods while applying the comparative reasonable use rule to ordinary floods.

There is no intrinsic reason under the comparative reasonable use rule for rejecting the Act of God defense in flooding cases. Injuries from extraordinary floods are not foreseeable and the cost of avoiding injury from them can be extremely high. Rejecting the Act of God defense would call for accepting massive damage to one's own property in order to avoid similar damage to adjoining properties. That may be too much for the law to expect.

Strong as those arguments are, the Missouri courts may conclude that granting immunity from liability for repelling extraordinary floods is an overreaction to the problem. Rather, they may consider the unpredictability of major floods to be a significant factor in the balancing test under the comparative reasonable use rule.

**Conclusions**

We can draw several conclusions from Heins and Campbell, the prior Missouri law of floods, and the cases from other states:

1. Missouri traditionally has applied the same legal rules to both drainage water and floodwater.
2. In 1993, Missouri overruled the common enemy rule and substituted the comparative reasonable use rule as to both drainage waters and floodwaters.
3. The comparative reasonable use rule requires a landowner to act in ways which do not unreasonably interfere with the use of adjoining properties.
4. The comparative reasonable use rule allows the construction of levees to repel floodwaters, but only under circumstances where adjoining properties are not unreasonably flooded or injured.
5. Old levees damaged in the 1993 flood may be repaired without being relocated, provided that the cost of reconstruction does not exceed 75% of pre-damage value; grandfather rights would be lost for more extensively damaged levees.
6. The prior drainway rule probably will be preserved.
7. There is no theoretical reason why the Missouri courts should reject the Act of God defense for flooding caused by levees during extraordinary floods, because of the extraordinary circumstances and lack of foreseeability of such floods.
8. While there is no precedent for applying such a no-liability rule for extraordinary floods in any comparative reasonable use rule state where such floods are considered drainage waters, some riparian rights doctrine states applying the comparative reasonable use rule to surface watercourses have granted immunity for repelling extraordinary floods.

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67 I suggest that the same rule for grandfathering old structures and uses in zoning be applied in levee repair situations. If the cost of reconstruction is more than 75% percent of the pre-damage value of the levee, grandfather rights probably ought to be lost.