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LAW AND FACT PATTERNS IN COMMON LAW WATER POLLUTION CASES

by PETER N. DAVIS ©

The federal Clean Water Act[1] and parallel state statutes[2] are the primary sources of law regulating the quality of surface watercourses and groundwater. Common law cases supplement regulatory law by dealing with localized pollution problems which comprehensive regulations cannot address. While the citizen suit provision in the Clean Water Act allows private suits to require compliance with the Act,[3] it does not provide for individual damages.[4] Hence, common law lawsuits have an important role to play in protecting the individual's right to water quality.

This article summarizes the various legal theories used in 1401 common law lawsuits involving water pollution and describes the various factual circumstances under which those theories have been used.[5] This analysis suggests when various theories might be used and the likelihood of success for plaintiffs. This article includes a series of tables showing the types of legal theories used in cases in Missouri and surrounding states and an appendix of Missouri water pollution cases employing these various doctrines.

PART I
LEGAL THEORIES USED IN WATER POLLUTION CASES

The theories used in common law water pollution cases are: private nuisance, public nuisance, negligence, violation of riparian rights (in eastern states), violation of prior appropriation rights (in western states), violation of groundwater allocation rules, violation of diffused surface water rules, strict liability, trespass, unconstitutional taking, violation of certain statutes, prescription and the public trust doctrine.[6] In addition, there are a large number of cases which do not cite any legal theory.

A. PRIVATE NUISANCE

Private nuisance is the most commonly used legal theory to deal with water pollution, followed in 531 cases (38%).[7] A private nuisance is defined as an unreasonable and substantial nontrespassory interference with the use and enjoyment of another's land,[8] impairing the fitness of land for the ordinary uses of life.[9] Typical examples of private nuisances created by water pollution are contamination of domestic, livestock, and public water supplies; creation of odors interfering with places of habitation or employment; and destruction of the fertility of soil.

B. PUBLIC NUISANCE

Public nuisance is the fourth most commonly used theory, followed in 181 cases (13%).[10] A public nuisance is defined as an unreasonable interference with a right common to the general public so as to endanger or injure the property, health, safety, or comfort of a considerable number of persons.[11] Typical examples of public nuisances created by water pollution are contamination of public water supplies, a group of domestic

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1 33 U.S.C. §§ 1251-1387 (1986). *See generally*, 1 F. GRAD, ENVIRONMENTAL LAW ch. 3 (1973-1992); 1 J. DAVIDSON & O. DELOGU, FEDERAL ENVIRONMENTAL REGULATION ch. 2 (1989); S. NOVICK & M. MELLON, LAW OF ENVIRONMENTAL PROTECTION ch. 12 (1987-1992); 2 W. RODGERS, ENVIRONMENTAL LAW (2d ed. 1986, supp. 1992); 5 WATER AND WATER RIGHTS (R. Beck 2d ed. 1991, supp. 1992); Davis, *Federal and State Water Quality Regulation and Law in Missouri*, 55 MO. L. REV. 411 (1990) [hereinafter cited as *Water Quality Regulation*].

2 *See, e.g.*, Missouri Clean Water Law, RSMo §§ 644.006-.141 (1986, supp. 1992). *See generally*, 1 MISSOURI ENVIRONMENTAL LAW ch. 8 (1991-92); Davis, *Water Quality Regulation, supra* note .

3 Clean Water Act § 505(a)(1), 33 U.S.C. § 1365(a)(1) (1986). *See generally*, Davis, *Water Quality Regulation, supra* note , at 434-38. There is no citizen suit provision in the Missouri statute.

4 *Middlesex County Sewerage Auth. v. National Sea Clammer Ass'n*, 453 U.S. 1 (1981); *City of Evansville v. Kentucky Liquid Recycling, Inc.*, 604 F.2d 1008 (7th Cir. 1979), *cert. denied* 444 U.S. 1025 (1980).

5 This article is drawn from review of over 1350 cases nationwide, the vast bulk of all reported cases. These cases have been found through the use of digests, electronic legal data bases, examination of prior cases cited in cases, and Shepards. No single research technique reveals more than a small portion of all reported cases. My forthcoming book on water pollution law and regulation will be the first publication with a comprehensive list of cases, listed by theory and jurisdiction. Those lists will contain notations of the fact situations and legal results in each case. This article will cite many representative cases, but for space reasons contains a comprehensive list only for Missouri.

6 Some of these theories, particularly private and public nuisance, violation of riparian rights and violation of groundwater allocation rules, have been discussed in published treatises and articles. Others have not been discussed before. *See, e.g.*, 1 RODGERS, *supra* note , ch. 2, at 28-168; 1 F. GRAD, *supra* note , §§ 3.02(1), 3.05(3); D. SELMI & K. MANASTER, STATE ENVIRONMENTAL LAW chs. 3-4 (1989-1992); Davis, *Water Quality Regulation, supra* note , at 484-502; Davis, *Protecting Waste Assimilation Streamflows by the Law of Water Allocation, Nuisance, and Public Trust, and by Environmental Statutes*, 28 NAT. RESOURCES J. 357 (1988); Davis, *Groundwater Pollution: Case Law Theories for Relief*, 39 MO. L. REV. 117 (1974) [hereinafter cited as *Groundwater Pollution*]; Davis, *Theories in Water Pollution Litigation*, 1971 WIS. L. REV. 738 [hereinafter cited as *Water Pollution Litigation*]; Comment, *Private Remedies for Water Pollution*, 70 COLUM. L. REV. 734, 738-44 (1970) [hereinafter cited as *Private Remedies* 735-744.

7 *See* Table A.

8 RESTATEMENT 2D, TORTS § 822, 832, 849 (1979); *Kriener v. Turkey Valley Community Sch. Dist.*, 212 N.W.2d 526, 531 (Iowa 1973) [school sewage lagoon effluent discharged into stream caused odors around farmhouse and polluted livestock water]. On Missouri private nuisance law generally, *see* Comment, *The Law of Private Nuisance in Missouri*, 44 MO. L. REV. 20 (1979).

9 *Bower v. Hog Builders, Inc.*, 461 S.W.2d 784, 795-97 (Mo. 1970) [feedlot sewage lagoon effluent flowed across boundary, causing odors and polluting a livestock watering pond]; *Sterling v. Velsicol Chem. Corp.*, 647 F.Supp. 303, 319 (W.D. Tenn. 1986), *aff'd in part, rev'd in part* 855 F.2d 1188 (6th Cir. 1988 - Tenn.) [leachate from unlicensed chemical waste landfill polluted domestic wells].

10 *See* Table A.

11 RESTATEMENT 2D, TORTS § 821B (1977); *Village of Wilsonville v. SCA Serv., Inc.*, 426 N.E.2d 824, 834 (Ill. 1981) *aff'd* 396 N.E.2d 552 (Ill. 1979) [leachate from hazardous waste landfill allegedly would pollute groundwater]; *New York v. Shore Realty Corp.*, 759 F.2d 1032, 1050 (2d Cir. 1985) [hazardous waste storage facility leaks polluted groundwater].

or livestock water supplies, or creation of widespread odors interfering with places of habitation or causing nausea and illness.

A public nuisance suit usually is enforceable only by a public official, such as a public health officer or prosecuting attorney;[12] but, if an individual is specially damaged or injured, a public nuisance may be enforced independently by the individual.[13]

C. NEGLIGENCE

Negligence is the second most commonly used theory, followed in 271 cases (19%).[14] Negligence is "conduct which falls below the standard established by law for the protection of others against unreasonable risk or harm," and involves a want of care, or an activity not conducted in a reasonable and prudent manner.[15] Negligence focuses on conduct, rather than on consequences.[16] It is directed at the predictability of the contamination or of the injury or damage caused by defendant's activity, not at the degree or nature of that injury or damage.[17]

D. RIPARIAN RIGHTS

Riparian rights is the third most commonly used theory, followed in 222 cases (16%).[18] The riparian doctrine is employed universally by thirty-one states in the eastern United States, including Missouri, to allocate water in watercourses between users. It is employed in cases involving pollution of watercourses as well, because the doctrine has always had a qualitative component in addition to its better known quantitative component.

The riparian doctrine provides that each landowner whose land abuts a watercourse has a coequal right to use a fair share of the water supply. Each riparian has two contradictory rights. First, each riparian is entitled to natural flow, that is, to have the water flow in its natural quantity and quality. Second, each riparian on the watercourse has an equal right to make reasonable uses of that water, including consumptive uses, even if some alteration in quantity, quality, or flow pattern occurs.[19] Reasonableness is determined by comparing the claimant riparian's uses with those of the other affected riparians. Each state has had to emphasize either natural flow right or the reasonable use right. Twenty-five of the thirty-one eastern states have adopted the reasonable use emphasis of the riparian doctrine,[20] which allows each riparian to make reasonable uses even if some alteration in quantity, quality, or flow pattern occurs.[21] Six states continue to follow the natural flow emphasis.[22]

The riparian doctrine applies to waste discharges as well as to water uses.[23] The natural flow concept requires that there be no adulteration of natural water quality and that the natural purity be maintained.[24] The reasonable use concept allows a reasonable use of water, even if some lessening of natural water quality occurs.[25] Comparative reasonableness is the standard employed in most riparian pollution cases.[26] That some waste discharges are permitted under the reasonable use concept of riparian rights is made evident by cases accepting the concept and denying relief because they did not unreasonably interfere with other riparian uses.[27]

E. PRIOR APPROPRIATION

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12 RESTATEMENT 2D, TORTS § 821C(2)(b) (1977); *Attorney-General ex rel. Township of Wyoming v. City of Grand Rapids*, 141 N.W. 890, 900 (Mich. 1913).
13 RESTATEMENT 2D, TORTS §§ 821C(1), 821C(2)(a) (1977); *Schoen v. Kansas City*, 65 Mo.App. 134, 138 (1895).
14 *See* Table A.
15 RESTATEMENT 2D, TORTS § 282 (1965); *Green v. Asher Coal Mining Co.*, 377 S.W.2d 68, 70 (Ky. 1964).
16 RESTATEMENT 2D, TORTS § 282 (1965) ("negligence is conduct"); *Nelson v. C & C Plywood Corp.*, 465 P.2d 314, 319 (Mont. 1970).
17 *Ressler v. Gerlach*, 149 A.2d 158, 160 (Pa. 1959) (defendant should have known his conduct would lead to another's injury).
18 *See* Table A.
19 *Bollinger v. Henry*, 375 S.W.2d 161 (Mo. 1964). On the riparian doctrine generally, *see* 1 WATER AND WATER RIGHTS, *supra* note , § 6.01(a)(3-4), 7.02-.03; A. TARLOCK, LAW OF WATER RIGHTS AND RESOURCES ch. 3 (1988-92); Davis, *Water Quality Regulation*, *supra* note , at 432-39.
20 Alabama, Arkansas, Delaware, Florida, Georgia, Illinois, Indiana, Iowa, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, New Hampshire, New York, Pennsylvania, South Carolina, Tennessee, Vermont, Virginia, West Virginia, and Wisconsin.
21 *Harris v. Brooks*, 283 S.W.2d 129 (Ark. 1955); *Pyle v. Gilbert*, 265 S.E.2d 584 (Ga. 1980).
22 Connecticut, Kentucky, New Jersey, North Carolina, Ohio, and Rhode Island. *See, e.g.*, *McCord v. Big Bros. Movement*, 185 A. 490 (N.J. 1936); RESTATEMENT 2D, TORTS § 850 (1978).
23 On the water quality aspects of the riparian doctrine generally, *see* 1 WATER AND WATER RIGHTS, *supra* note , § 7.03(e); A. TARLOCK,, *supra* note , § 3.13; 1 W. RODGERS,, *supra* note , § 2.19; Davis, *Water Quality Regulation*, *supra* note , at 489-90; Davis, *Water Pollution Litigation*, *supra* note , at 742-49; Comment, *Private Remedies*, *supra* note , at 735-38.
24 *Beaunit Corp. v. Alabama Power Co.*, 370 F.Supp. 1044, 1052 (N.D. Ala. 1973) [peak hydroplant operation reduced minimum flow need for waste assimilation by industrial waste treatment plant]; *McArthur v. Mt. Shasta Power Corp.*, 45 P.2d 807, 815 (Cal. 1935) [hydroelectric diversion caused stagnation of livestock & irrigation water supply]; *H.B. Bowling Coal Co. v. Ruffner*, 100 S.W. 116, 119 (Tenn. 1906) [acid mine drainage pumped into stream corroded factory boiler and polluted domestic & livestock water supply].
25 *Tetherington v. Donk Bros. Coal & Coke Co.*, 83 N.E. 1048, 1049 (Ill. 1908) [coal mine debris covered farmland after tailings settling in reservoir washed out]; *Ferguson v. Firmenich Mfg. Co.*, 42 N.W. 448, 449 (Ia. 1889) [sugar beet refuse discharged into stream polluted domestic & livestock water supply].
26 *Borough of Westville v. Whitney Home Builders*, 122 A.2d 233 (N.J.Super 1956); For a functional analysis of how the riparian rights doctrine has been applied to water pollution cases, *see* W. RODGERS, *supra* note , § 2.19.
27 *See e.g. Ferguson v. Firmenich Mfg. Co.*, 42 N.W. 448, 449 (Ia. 1899) [sugar beet refuse discharged into stream polluted domestic & livestock water supply — allegations not proved]; *Helfrich v. Catonsville Water Co.*, 22 A. 72, 73 (Md. 1891) [cattle in stream polluted public water supply — trial court injunction quashed].

Prior appropriation theory is used in ten western cases (1%).[28] The 18 western states follow the prior appropriation doctrine in allocating water between users.[29] The prior appropriation doctrine provides that users are entitled to take their full appropriations of water in historic chronological order of first use until the water supply is exhausted. In times of shortage, the latest appropriators will be cut off in inverse historic order until demand equals supply. That chronological allocation is described by the maxim "first in time, first in right."[30] Beginning in 1890, all western states enacted statutory permit systems and established state agencies to administer prior appropriation rights.

Many prior appropriation waste discharge cases hold that a senior appropriator cannot expect to retain natural quality of flow, but must expect some deterioration in quality by the activities of upstream junior appropriators. However, the senior appropriator is entitled to be free from unreasonable interference with the fair enjoyment of their prior appropriative right by material deterioration of water quality,[31] and some cases hold that an upstream junior appropriator may cause no degradation.[32]

Courts in most western states have not determined the water quality rights of junior appropriators. But the few jurisdictions considering the question disagree whether a downstream junior appropriator must accept degraded water quality resulting from a senior appropriator's use. The California and Washington courts hold that the junior user takes the water as they find it, both in quantity and quality; pollution resulting from a senior user's lawful use is considered part of the senior appropriator's use.[33] By contrast, the Colorado and Montana courts have held that by rendering the watercourse unfit for diversionary uses by a junior user, a polluting senior user had unlawfully appropriated the entire flow of the watercourse.[34]

In prior appropriation states, pollution by nonappropriators is handled under other doctrines.

F. GROUNDWATER ALLOCATION RULES

Groundwater allocation rules have been used in thirty-eight cases (3%).[35] The courts have developed several rules for allocating groundwater between conflicting users. Conflicts involving use, diversion and obstruction of water in identifiable underground streams are governed by the rules which allocate water in surface watercourses: riparian rights in the eastern states[36] and prior appropriation in the western states by statute.[37] Conflicts involving use, diversion and obstruction of percolating groundwater are governed by one of several allocation rules: absolute ownership rule, American "reasonable use" rule, comparative reasonable use rule, western "correlative rights" rule, and prior appropriation rule.

The prior appropriation doctrine applies the same rules for groundwater as it does for surface water, and thus will not be discussed again. The western "correlative rights" doctrine will not be addressed in this article.

One might expect that those same rules would govern pollution of groundwater since the practical consequences of groundwater contamination are no different than those of diversion or obstruction. In both instances, the neighboring landowner is deprived of the use of groundwater. But such is not the case. In the vast majority of groundwater pollution cases, either nuisance or negligence law is employed. Less than a handful of cases use groundwater allocation rules to decide pollution cases. Perhaps this reflects an unstated observation that a groundwater polluter is denying access to water the polluter is not using.

1. Absolute Ownership Rule

The absolute ownership rule provides that a landowner can use percolating groundwater in any amount and at any place without liability for injurious consequences to neighbors.[38] Today the absolute ownership rule continues to be followed by 8 states.[39] The water pollution cases employing the absolute ownership rule state two reasons why the rule is appropriate: (1) since there is no method for the well driller to determine the movement of percolating groundwater be-

28 *See* Table A.

29 Alaska, Arizona, California, Colorado, Idaho, Kansas, Montana, Nebraska, Nevada, New Mexico, North Dakota, Oklahoma, Oregon, South Dakota, Texas, Utah, Washington, and Wyoming. On the prior appropriation doctrine generally, *see* 2 WATER AND WATER RIGHTS, *supra* note , §§ 12.01-.03, 13.01-.04, 17.01-.03; A. TARLOCK,, *supra* note , ch. 5; 1 W. HUTCHINS, WATER RIGHTS LAWS OF THE NINETEEN WESTERN STATES cc. 7-9 (U.S. Dep't Agric. Mis. Pub. No. 1206, 1971).

30 *Gunnison-Fayette Canal Co. v. Gunnison Irrigation Co.*, 448 P.2d 707 (Utah 1968); *Irwin v. Phillips*, 5 Cal. 140 (1855).

31 Arizona Copper Co. v. Gillespie, 100 P. 465, 470 (Ariz. 1909), *aff'd* 230 U.S. 46 (1913) [copper ore tailings covered irrigated farmland].

32 *See e.g. Wright v. Best*, 121 P.2d 702, 709 (Cal. 1942) [ore crushings discharged into stream polluted domestic & irrigation water].

33 *Conrad v. Arrowhead Hot Springs Hotel Co.*, 37 P. 386, 387 (Cal. 1894) [hotel spa domestic wastes polluted domestic & irrigation water in ditch diverting water from stream]; *McEvoy v. Taylor*, 105 P. 851, 853 (Wash. 1909) [farm animals & geese polluted livestock water].

34 *Suffolk Gold Mining & Milling Co. v. San Miguel Consol. Mining & Milling Co.*, 48 P. 828, 832 (Colo. Ct.App. 1897) [ore milling wastes eroded industrial hydroelectric machinery]; *Atchison v. Peterson*, 87 U.S. (20 Wall.) 507, 515, (1874), *aff'd* 1 Mont. 561 (Mont. 1872).

35 *See* Table A.

36 *Tampa Waterworks Co. v. Cline*, 20 So. 780, 784 (Fla. 1896); *Keevil v. City of Princeton*, 118 S.W. 363, 365 (Ky. 1909) (by implication); *Rose v. Socony-Vacuum Corp.*, 173 A. 627, 630 (R.I. 1934).

37 On the application of prior appropiation to groundwater generally, *see* WATER AND WATER RIGHTS, *supa* note 1, §§ 24.01-.07, A. TARLOCK, *supra* note 16, c.6.

38 *Dillon v. Acme Oil Co.*, 2 N.Y.S. 289, 290-91 (N.Y. Sup. Ct. 1888) [refinery residues polluted domestic well]. On the absolute ownership rule generally, *see* 3 WATER AND WATER RIGHTS, *supra* note , §§ 21.01-.07; A. TARLOCK, *supra* note , § 4.04; Davis, *Wells and Streams: Relationship at Law*, 37 Mo. L. REV. 189, 201-02 (1972) [hereinafter cited as *Wells and Streams*].

39 Connecticut, Georgia, Louisiana, Massachusetts, Pennsylvania, Rhode Island, South Carolina and Texas.

fore drilling, it is not fair to impose liability,[40] and (2) imposing liability would deter economic development.[41] The absolute ownership rule gives an almost absolute immunity to groundwater polluters by permitting landowners to inject wastes into groundwater or to contaminate it. Apparently because of that draconian absence of liability under the rule, there are no cases granting relief under the absolute ownership rule.

2. American Rule

The second groundwater allocation rule is the "American rule," sometimes misdesignated as the "reasonable use rule." It provides that a landowner may use as much groundwater as desired without liability for the adverse effects on any neighbor's groundwater supply, provided the groundwater is used on property owned by the landowner. The landowner also may make any use of the land affecting the movement of percolating groundwater without liability.[42] It is important to recognize that the rule does not call for a comparison of the landowner's uses with the uses made of the groundwater by the adversely affected neighbor. Today the American rule is followed by nine states.[43]

Until the last decade there were no water pollution cases granting relief under the American rule. But the concept of the rule, although a variant of absolute ownership, ought to impose liability for off-site contamination of groundwater, because the rule prohibits off-site groundwater use. A case in the last decade confirms that interpretation and imposed liability for off-site groundwater contamination.[44]

3. Comparative Reasonableness Rule

The third rule of groundwater allocation has no commonly accepted name. It employs the same concept of comparative rea sonableness employed in the riparian doctrine for surface watercourses. It provides that a landowner may use groundwater only to the extent that it does not unreasonably reduce the amount of groundwater available to any neighbor.[45] Comparative reasonableness was applied to groundwater use situations because courts perceived both the absolute ownership rule and the American rule to be unfair to the adversely affected groundwater user, especially where the groundwater diverter was thought to be overreaching.[46]

"The common enemy rule provides that drainage water is a scourge which each landowner is entitled to remove by any physical means available."

Like the riparian rights doctrine from which it is derived, the comparative reasonableness rule has a water quality dimension which forbids groundwater contamination that unreasonably interferes with groundwater use by others.[47] Today comparative reasonableness is applied to groundwater use in 17 states, including Missouri.[48]

G. DIFFUSED SURFACE WATER RULES

Cases involving pollution of drainage or diffused surface water are relatively uncommon compared to surface watercourse and groundwater pollution cases, totaling only twenty-two cases (2%).[49] Although the courts have developed several rules for dealing with unwanted diffused surface water, few drainage pollution cases use those rules. The three rules are the common enemy rule, civil law rule, and reasonable use rule.[50]

One would expect that drainage pollution cases using diffused surface water rules would follow the logical implications of those rules; that is, pollution of drainage would be allowed under the common enemy rule, no pollution would be allowed under the civil law rule, and pollution that is not unreasonably excessive would be allowed under the reasonable use rule. Courts have imposed liability for polluting drainage water under all three rules, however, holding respectively that each rule bars such pollution.

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40 *Rose v. Socony-Vacuum Corp.*, 173 A. 627, 630 (R.I. 1934).
41 *Phillips v. Sun Oil Co.*, 121 N.E.2d 249, 251 (N.Y. 1954).
42 *United Fuel Gas Co. v. Sawyers*, 259 S.W.2d 466, 468 (Ky. 1953) [gas well leak polluted domestic well]; *See generally*, 3 WATER AND WATER RIGHTS, *supra* note , §§ 23.01-.03 [combining discussions of the American and comparative reasonableness rules]; A. TARLOCK, *supra* note , § 4.05; Davis, *Wells and Streams*, *supra* note , at 202-03.
43 Alabama, Indiana, Iowa, Kentucky, Maine, Maryland, New York, North Carolina and West Virginia.
44 *Hughes v. Emerald Mines Corp.*, 450 A.2d 1 (Pa. Super. Ct. 1982) [acid mine wastes polluted wells].
45 *See generally*, 3 WATER AND WATER RIGHTS, *supra* note , §§ 22.01-.08 [combining eastern comparative reasonableness and western correlative rights cosharing rules], 23.01-.03 [combining American and comparative reasonableness rules]; Davis, *Wells and Streams*, *supra* note , at 203-04.
46 *Jones v. Oz-Ark-Val Poultry Co.*, 306 S.W.2d 111 (Ark. 1957); *Higday v. Nickolaus*, 469 S.W.2d 859 (Mo. Ct.App. 1971).
47 *Bridgman v. Sanitary Dist.*, 517 N.E.2d 309, 312 (Ill. App. Ct. 1987) (rejecting absolute ownership) [digging of ditch diverted groundwater and caused degraded water from other sources to pollute domestic well]; *North-East Coal Co. v. Hayes*, 51 S.W.2d 960, 962 (Ky. 1932) [mining subsidence caused pollution of domestic & livestock well of overlying surface owner].
48 Arizona, Arkansas, California, Delaware, Florida, Illinois, Michigan, Minnesota, Missouri, Nebraska, New Hampshire, New Jersey, Ohio, Tennessee, Vermont, Virginia, and Wisconsin.
49 *See* Table A.
50 On diffused surface water law generally, *see* Comment, *The Reasonable Use Rule in Surface Water Law*, 57 MO. L. REV. 223 (1992); 2 WATER AND WATER RIGHTS, *supra* note , § 10.03; 5 *id.* § 59.02(b); Davis, *Law of Diffused Water in Eastern Riparian States*, 6 CONN. L. REV. 227 (1974); Maloney & Plager, *Diffused Surface Water: Scourge or Bounty?*, 1 NAT. RESOURCES J. 72 (1968); Dolson, *Diffused Surface Water and Riparian Rights: Legal Doctrines in Conflict*, 1966 WIS. L. REV. 58; Annot., *Modern Status of Rules Governing Interference with Drainage of Surface Waters*, 93 A.L.R.3d 1193 (1979).

1. Common Enemy Rule

The common enemy rule provides 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 without legal liability for the injurious consequences to neighbors' lands. This gives the upper landowner the right to discharge drainage on lower neighbors and it gives the lower landowners the right to block drainage and to pen it back on upper neighbors. It encourages hydraulic warfare and lack of concern for neighbors. Twelve states follow the common enemy rule, including Missouri.[51]

This *laissez faire* approach would suggest that the upper dominant landowner could pollute drainage water at will. But nearly all of the few cases which have considered the question have barred discharges of polluted drainage water.[52] Evidently, those courts consider polluted drainage water to be of a different character than unpolluted drainage water. But a pair of Missouri cases suggests that perhaps *de minimis* pollution in drainage water may not be actionable.[53]

2. Civil Law Rule

The civil law rule provides that drainage must be allowed to follow its natural courses. The upper landowner is not allowed to redirect drainage artificially; the lower landowner is forbidden to obstruct natural drainage. The purpose of the rule is to preserve the natural drainage pattern and to prohibit landowners from taking unfair advantage of each other. Seventeen states follow the civil law rule.[54]

One would expect the civil law rule, which bars alteration of natural drainage flow, would also bar pollution of drainage water. In fact, there are eight civil law rule cases involving polluted drainage water and all but one granted relief.[55] One case, however, suggests that the lower servient land must accept contaminants in drainage water resulting from a reasonable use of the upper dominant land.[56]

3. Reasonable Use Rule

Under the reasonable use rule, each landowner is allowed to dispose of, block, or divert drainage in ways which do not unreasonably interfere with the use of a 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.[57] The reasonable use rule is followed in eighteen states.[58]

As is true for the analogous comparative reasonableness balancing process employed for surface watercourses and groundwater, the theory of the reasonable use rule suggests that drainage water may be degraded in quality so long as it does not cause an unreasonable interference; however, there are no cases so holding. Instead, the only case in point holds that the reasonable use rule does not permit drainage water to contain a waste discharge, since that would add a burden to the lower servient lands.[59]

H. STRICT LIABILITY

The doctrine of strict liability has been applied in forty eight cases (3%).[60] It has been employed more frequently in cases of groundwater pollution and underground contaminant flow (thirty-one cases) than in surface watercourse pollution cases (fourteen cases), or in drainage water pollution cases (four cases).[61]

The formulations of the definition of situations calling for strict liability vary between the states. Most commonly, activities give rise to strict liability when they are "abnormally dangerous," because of their propensity to cause injury or damage or because of the extensive harm which results from their going out of control. The persons engaging in such activities should be expected to compensate for consequential injuries and damage, because it is unreasonable and contrary to public policy to expect the injured or damaged persons to assume the burden of injury or damage under any circumstances. More water pollution cases have employed the common law version of the rule[62] rather than the RESTATEMENT (SECOND)

51 Arizona, Arkansas, Indiana, Maine, Missouri, Montana, Nebraska, New York, Oklahoma, South Carolina, Virginia, and Washington.

52 *Baltzeger v. Carolina Midland Ry.*, 32 S.E. 358, 359-60 (S.C. 1899); *G.L. Webster Co. v. Steelman*, 1 S.E.2d 305, 312 (Va. 1939) [cannery waste discharged into drain leading to creek & estuary caused odors and killed shellfish — damages granted for odors on nuisance theory, but damages denied for loss of "seafood").

53 *Casanover v. Villanova Realty Co.*, 209 S.W.2d 556 (Mo. Ct. App. 1948), denied relief for a clay deposit of several inches settling out of drainage water. Later, *Wells v. State Highway Comm'n*, 503 S.W.2d 689 (Mo. 1973), granted relief for a massive silt deposit settling out of drainage water.

54 Alabama, Colorado, Georgia, Idaho, Illinois, Iowa, Kansas, Louisiana, Maryland, Michigan, New Mexico, Oregon, Pennsylvania, South Dakota, Tennessee, Texas, and Vermont.

55 *See e.g. Fenwick v. Bluebird Coal Co.*, 140 N.E.2d 129, 131 (Ill. Ct. App. 1957) [acid mine drainage discharged into ditch flowed into adjacent timberland, killing trees]; *Harbison v. City of Hillsboro*, 204 P. 613, 618 (Or. 1922) [city treated sewage effluent plugged drainage ditch with sediment and penned back drainage water].

56 *Niagara Oil Co. v. Jackson*, 91 N.E. 825, 827 (Ind. Ct. App. 1910).

57 RESTATEMENT 2D, TORTS, §§ 821A - 833 (1979), applying private nuisance law.

58 California, Connecticut, Delaware, Florida, Kentucky, Massachusetts, Minnesota, Mississippi, Nevada, New Hampshire, New Jersey, North Carolina, North Dakota, Ohio, Rhode Island, Utah, West Virginia, and Wisconsin.

59 *Kallevig v. Holgren*, 197 N.W.2d 714, 718 (Minn. 1972) [apartment septic tank effluent, combined with pothole drainage, was directed onto neighboring land, poisoning the soil].

60 *See* Table A.

61 *See* Tables B-D.

62 *See City of Bloomington v. Westinghouse Elec. Corp.*, 891 F.2d 611, 615 (7th Cir. 1989) [PCBs]; *United States v. Hooker Chem. & Plastics Corp.*, 722 F.Supp. 960, 966 (W.D.N.Y. 1989) [Love Canal]; *Sterling v. Velsicol Chem. Corp.*, 647 F.Supp. 303, 313-15 (W.D.Tenn. 1986), *aff'd in part, rev'd in part on other grounds* 855 F.2d 1188 (6th Cir. 1988); *Behle v. Shell Pipe Line Corp.*, 17 S.W.2d 656, 657 (Mo. Ct. App. 1929) (dictum).

view.[63] Strict liability is imposed most commonly in the mining and oil and gas production industries and in gasoline retailing.

I. TRESPASS

The trespass doctrine has been used in fifty-eight water pollution cases (4%).[64] A trespass is defined as a nonpermissive and unprivileged physical intrusion or invasion of another's land which violates the owner's right to exclusive possession and to exclude others. It includes intrusions on, beneath and above the surface of the land.[65] Trespass is an entry without lawful authority,[66] and an unprivileged intentional intrusion of another's possession.[67] An intention to cause the entry is not required; an accident or mistake is sufficient.[68] The activity must be done where it is reasonably foreseeable that intrusion by foreign matter will occur.[69] Trespass, rather than nuisance, is used when a physical invasion is involved.[70]

J. UNCONSTITUTIONAL TAKING

Pollution lawsuits have been decided under constitutional taking and inverse condemnation theories in fourty-eight cases (3%).[71] Those theories have been used only in lawsuits involving permanent pollution caused by governmental entities and private entities with eminent domain power.

The federal government and state governments are prohibited from taking property without paying compensation. The Fifth Amendment limiting the powers of the federal government provides that ". . . nor shall private property be taken for public use without just compensation."[72] All state constitutions have parallel prohibitions.[73] The unconstitutional taking and inverse condemnation theories can be invoked when the government fails to pay compensation for an activity which constitutes a taking.[74]

Inverse condemnation is a form of unconstitutional taking.[75] It is inverse only in the sense that the lawsuit is brought by the condemnee instead of the condemnor.[76] The suit is for compensation for a condemnation which should have occurred, but did not.[77]

Most of the water pollution taking cases are inverse condemnation cases. Many courts have concluded that the discharge of wastes from government-owned facilities which causes consequential damages to private property constitutes a taking.[78] Takings occur when the government takes possession of private property,[79] when it deprives its owner of an essential attribute of property rights,[80] when there is a nontrespassory interference which results in a material diminution of land value,[81] or when there is a substantial denial of the use of land.[82]

K. STATUTORY LIABILITY

A miscellaneous collection of state statutes prohibit various activities which can cause water pollution and impose liability for their violation. Of these, the statutes which generate the most cases are those prohibiting the discharge of brine from oil wells.[83] This theory is the sixth most commonly used, followed in 109 cases (8%).[84]

Nearly all water pollution regulatory statutes preserve common law rights and rem-

63 RESTATEMENT 2D, TORTS §§ 519-20 (1979). *See, e.g., Bunyak v. Clyde J. Yancey & Sons Dairy, Inc.*, 438 So.2d 891, 894 (Fla. Dist. Ct. App. 1983); *Williams v. Amoco Prod. Co.*, 734 P.2d 1113, 1122-23 (Kan. 1987).
64 *See* Table A.
65 *Rushing v. Hooper-McDonald, Inc.*, 300 So.2d 94, 96-97 (Ala. 1974); *Wells v. State Highway Comm'n*, 503 S.W.2d 689, 693 (Mo. 1973). On trespass generally, *see* 1 W. RODGERS, *supra* note , § 2.15, at 126-28; F. HARPER, F. JAMES & O. GRAY, LAW OF TORTS § 2.1, at 3 (2d ed. 1986); W. PROSSER & W. KEETON, TORTS, § 13, at 67-84; R. CUNNINGHAM, W. STOEBUCK & D.WHITMAN, LAW OF PROPERTY § 7.1, at 410-12 (stud. ed. 1984). *See also* RESTATEMENT 2D, TORTS § 158 (1965).
66 Sterling v. Velsicol Chem. Corp., 647 F.Supp. 303, 317-18 (W.D. Tenn. 1986), *aff'd in part, rev'd in part* 855 F.2d 1188 (6th Cir. 1988).
67 *Wellesley Hills Realty Trust v. Mobil Oil Corp.*, 747 F.Supp. 93, 99 (D. Mass. 1990) [subsequent owner of land contaminated by gasoline sued prior owner for violation of oil release liability statute & common law].
68 *Sterling v. Velsicol Chem. Corp.*, 647 F.Supp. 303, 317-18 (W.D. Tenn. 1986), *aff'd in part, rev'd in part* 855 F.2d 1188 (6th Cir. 1988).
69 *W.T. Ratliff Co. v. Henley*, 405 So.2d 141, 145-46 (Ala. 1981) [lessee's sand pile washed onto lessor's adjacent land after heavy rain].
70 *Wells v. State Highway Comm'n*, 503 S.W.2d 689, 693 (Mo. 1973) [soil erosion silt in drainage water filled lake bed].
71 *See* Table A.
72 U.S. CONST. amend. V.
73 *See, e.g.*, Mo. CONST. art. I, § 26 (1945), which provides: "That private property shall not be taken or damaged for public use without just compensation."
74 On water-related regulatory takings generally, *see* 5 WATER AND WATER RIGHTS, *supra* note , § 61.03(c)(7); Klock & Cook, *The Condemning of America: Regulatory "Takings" and the Purchase by the United States of America's Wetlands*, 18 SETON HALL L. REV. 330, 339-354 (1988).
75 On inverse condemnation generally, *see* 4 WATER AND WATER RIGHTS, *supra* note , § 38.05; J. NOWAK & R. ROTUNDA, *supra* note , § 11.14; 1 W. RODGERS, *supra* note , § 2.17; 2 J. SACKMAN, NICHOLS'S THE LAW OF EMINENT DOMAIN § 6.21 (3d ed. 1990).
76 J. NOWAK & R. ROTUNDA, *supra* note 64, § 11.14.
77 In recent years, some inverse condemnation suits have sought invalidation of excessive police power regulation. *See. e.g., Agins v. City of Tiburon*, 598 P.2d 25 (Cal. 1979), *aff'd* 447 U.S. 255 (1980). Most water pollution inverse condemnation cases seek compensation.
78 *See e.g., King v. City of Rolla*, 130 S.W.2d 697, 702 (Mo. Ct.App. 1939) [treated city sewage polluted livestock water & caused odors].
79 *Evans v. City of Johnstown*, 410 N.Y.S.2d 199, 201 (N.Y. Sup. Ct. 1978).
80 *Foss v. Maine Turnpike Authority*, 309 A.2d 339, 344 (Me. 1973) [snow removal operations caused salt to drain off road & polluted domestic water, killed crops & destroyed plumbing].
81 *Id.*; *Twitty v. State*, 354 S.E.2d 296, 303 (N.C. Ct. App. 1987).
82 *Crane v. Brintnall*, 278 N.E.2d 703, 706 (Ohio C.P. 1972) [treated sewage polluted a manmade recreational lake, causing algal blooms].
83 *See e.g.*, KAN. STAT. ANN. § 55-172 (Supp. 1992); N.C. GEN. STAT. § 143-215.93 (1992); OKLA. STAT. ANN. tit. 52, § 296 (1991).
84 *See* Table A.

edies;[85] however, most cases interpreting those provisions hold that no common law private liability arises for their violation.[86]

L. PRESCRIPTION

Under the various doctrines governing water use and allocation in water pollution cases, the doctrine of prescription plays a dual role. Water use rights and the right to discharge wastes can be acquired by prescription. Prescription also can be used as a defense against an enforcement action. Many water pollution cases, sixty seven cases (5%) have employed the prescription doctrine, mostly as a defense.[87]

A prescriptive right, adverse and superior to the right of the owner of the property right, can be acquired analogously to adverse possession.[88] The right to pollute must be open and notorious for the entire statutory period. It must be visible or detectable enough that the water user against whom the statute of limitations is running either knows, or should know, that the user's rights have been invaded.[89] The discharge must be continuous[90] and adverse, and must continue for the entire period of the statute of limitations.[91] Periodic uses are treated as continuous if they occur whenever the nature and circumstances of the use require.[92]

A prescriptive right can be acquired to discharge wastes in abrogation of riparian,[93] prior appropriation,[94] groundwater, or drainage rights,[95] or to maintain a private nuisance.[96] The right of the public to enjoin a public nuisance, however, cannot be prescribed.[97] Nor can the right to enjoin a public nuisance be prescribed from a private individual with special damage.[98] Notably, a perfected prescriptive right does not protect enlarged or changed waste discharges which have continued for less than the period of the statute of limitations.[99]

M. PUBLIC TRUST DOCTRINE

The public trust doctrine is a common law theory under which waste discharges can be restrained and the assimilative capacity of watercourses protected. Its principal use has been to protect the physical integrity of public watercourses. It has seen relatively little use to protect those waters from pollution, being followed in only eight cases.[100] Nonetheless, its potential for protecting watercourses from pollution is great.

The public trust doctrine imposes an obligation on the states, as trustees, to preserve navigable waters for use by the public. It provides that the state owns the beds of public waters and the waters themselves, not as proprietor, but as trustee for the benefit of the public. The state cannot relinquish such title unless the conveyance would further the purposes of the public trust. Since the state had original title, exercise of state powers to enforce the public trust does not constitute a taking, regardless of the extent to which the private bed titles are diminished in value or usefulness. The state as public trustee has a minimum obligation to protect the public rights of navigation and fishery.[101] During the twentieth century, the public trust has been expanded to protect recreational boating, swimming, wading, hunting, and other water-related public uses.[102] The public trust

85 *See, e.g.*, Clean Water Act § 505(e), 33 U.S.C. §1365(e) (1993); Safe Drinking Water Act § 1449(e), 42 U.S.C. § 300j-8(e) (1993); Missouri Clean Water Law, Mo. Rev. Stat. § 644.131 (1986).
86 *Middlesex County Sewerage Auth. v. National Sea Clammers Ass'n*, 453 U.S. 1 (1981); *Sierra Club v. U.S. Army Corps of Eng'rs*, 701 F.2d 1011 (2d Cir. 1983).
87 *See* Tables A-D.
88 On prescription generally, *see* 1 WATER AND WATER RIGHTS *supra note* , § 7.04(c); 2 *id.* § 17.03(c); A. TARLOCK, *supra* note , §§ 3.19, 4.08[4], 5.18[3]; 2 W. HUTCHINS, *supra* note , 328-427; 1 W. RODGERS, *supra* note , § 2.10(A); R. CUNNINGHAM, W. STOEBUCK & D. WHITMAN, *supra* note , § 8.71; 3 R. POWELL & P. ROHAN, LAW OF REAL PROPERTY ¶ 413 (1952-92); 7 *id.* ¶ 1012[2][b]; 2 AMERICAN LAW OF PROPERTY §§ 8.44-.63, 8.68-.69 (1952, supp. 1962); RESTATEMENT, PROPERTY SERVITUDES §§ 457-65, 477-81, 506 (1944); McCoy, *The Role of Adverse Possession in Water Law*, 10 HARV. ENVT'L. L. REV. 257, 261-266 (1986).
89 *Conestee Mills v. City of Greenville*, 158 S.E. 113, 115-16 (S.C. 1931).
90 *Cook Indus., Inc. v. Carlson*, 334 F.Supp. 809, 818 (N.D. Miss. 1971).
91 *City of Cleveland v. Standard Bag & Paper Co.*, 74 N.E. 206, 208 (Ohio 1905).
92 *Anneburg v. Kurtz*, 28 S.E.2d 769, 772 (Ga. 1944).
93 *City of Richmond v. Test*, 48 N.E. 610, 614 (Ind. Ct.App. 1897); *Kennebunk, K. & W. Water Dist. v. Maine Turnpike Auth.*, 84 A.2d 433, 439-40 (Me. 1951).
94 *See Joeger v. Mt. Shasta Power Corp.*, 276 P. 1017 (Cal. 1929); *Chessman v. Hale*, 79 P. 254 (Mont. 1905).
95 *See Blue Ridge Poultry & Egg Co., Inc. v. Clark*, 176 S.E.2d 323 (Va. 1970).
96 *Smith v. City of Sedalia*, 53 S.W. 907, 910 (Mo. 1899) (by implication). Notably, three cases hold that the right to abate a private nuisance cannot be prescribed. *Lawton v. Herrick*, 76 A. 986, 989 (Conn. 1910); *City of Oxford v. S.E. Spears*, 87 So.2d 914, 917 (Miss. 1956); *Vian v. Sheffield Bldg. & Dev. Co.*, 88 N.E.2d 410, 414, (Ohio Ct. App. 1948).
97 *Gardenhire v. Sinclair-Prairie Oil Co.*, 44 P.2d 280, 283 (Kan. 1935); *Gundy v. Village of Merrill*, 230 N.W. 163, 163 (Mich. 1930); *City of Corsicana v. King*, 3 S.W.2d 857, 861 (Tex. Civ. App. 1928); *Meiners v. Frederick Miller Brewing Co.*, 47 N.W. 430, 430 (Wis. 1890).
98 *Nolan v. City of New Britain*, 38 A. 703, 708 (Conn. 1897).
99 *Smith v. City of Sedalia*, 53 S.W. 907, 910 (Mo. 1899); *City of Walla Walla v. Conkey*, 492 P.2d 589, 595 (Wash. Ct. App. 1971).
100 *See* Table A.
101 *Illinois Central R.R. v. Illinois*, 146 U.S. 387 (1892); *National Audubon Soc'y v. Superior Court*, 658 P.2d 709 (Cal. 1983), *cert. denied* 464 U.S. 977 (1983); *Superior Public Rights, Inc. v. State Dep't of Natural Resources*, 263 N.W.2d 290, 296 (Mich. Ct. App. 1978). On the public trust doctrine generally, *see* 4 WATER AND WATER RIGHTS, *supra* note , § 30.02; A. TARLOCK, *supra* note , §§ 5.13[3], 8.04-.05; Johnson, *Water Pollution and the Public Trust Doctrine*, 19 ENVTL. L. 485 (1989); 1 W. RODGERS, *supra* note , § 2.20; Ausness, *Water Rights, The Public Trust Doctrine, and the Protection of Instream Uses*, 1986 U. ILL. L. REV. 407, 409-16, 421-28; Comment, *State Citizen Rights Respecting Greatwater Resource Allocation: From Rome to New Jersey*, 25 RUTGERS L. REV. 571 (1971); J. SAX, DEFENDING THE ENVIRONMENT c. 7 (1970); Sax, *The Public Trust in Natural Resources Law: Effective Judicial Intervention*, 68 MICH. L. REV. 471 (1970); 2 F. GRAD, *supra* note , § 10.05.
102 *Orion Corp. v. State*, 747 P.2d 1062, 1073 (Wash. 1987), *cert denied* 486 U.S. 1022 (1988); *State v. Bleck*, 338 N.W.2d 492, 498 (Wis. 1983).

doctrine applies to all public waters navigable or floatable under state law.[103]

In water pollution cases, the courts have held that under the public trust doctrine the state holds public waters in trust for the benefit of the public,[104] that the doctrine imposes on the state an obligation to protect the public's right to use public waters for public uses,[105] and that the state may not substantially impair the public's use of those waters.[106] Alienation of the bed is barred by the public trust doctrine.[107] The doctrine applies to interferences with fishing[108] and the physical integrity of the waters themselves.[109]

The state, as public trustee, has standing to enforce the public trust.[110] It is not so clear whether members of the public, as beneficiaries of the trust, can do so. Some courts have held that members of the public can sue the state if it regulates water uses in derogation of the public trust or abdicates its trust obligations.[111] In some states, a member of the public can enforce public trust rights directly against a violator.[112] In other states, however, a private individual cannot enforce the trust.[113]

Few water pollution cases have been decided under the public trust doctrine, and all but one of those have involved coastal waters. Maine, Maryland, and New Jersey have applied the doctrine under federal admiralty law[114] and state law.[115] Virginia has nominally accepted the doctrine, but holds that a municipality has a sovereign right to discharge wastes into public waters without liability.[116] New York has rejected use of the doctrine in pollution cases.[117]

N. NO DECISIONAL THEORY CASES

A surprising number of water pollution cases do not recite any legal theory to support their decisions. "No decisional theory" cases compromise 154 cases (11%), thus these are the fifth most commonly used theory. Over half of these cases were decided in Kansas and Oklahoma (eighty-seven cases). About one-third of the cases in Oklahoma were of the "no decisional theory" decisions.[118] Because many other cases reciting particular legal theories were decided in those states at the same time, it is not possible to ascribe these no decisional theory decisions to any particular theory. The cases in both states are focused on brine disposal from oil wells, refinery storage leaks, and pipeline leaks.

Particularly curious in each of these states is that the no decisional theory cases are mixed among many other cases reciting specified theories, particularly private nuisance, negligence, and statutory liability. For example, in Oklahoma between 1935 and 1940, there were 70 decisions, of which two oil well and six non-oil well cases used private nuisance law; four oil well and two pipeline leak cases applied negligence law; thirty oil well, one pipeline leak, and one refinery spill cases relied on a statute creating liability for polluting domestic and livestock water supplies with oil well brine and wastes; and twenty-nine oil well and two non-oil well cases failed to specify a decisional theory. A similar pattern of cases also exists in Kansas throughout the twentieth century.

Several comments are in order. First, it should be recognized that the cases are not inconsistent in result. Generally, the courts granted relief for proven pollution under each of the theories (or non-theory). Second, the courts more frequently did specify a decisional theory in non-oil well cases. Third, even in oil well cases, a majority of decisions in Kansas and Oklahoma specified a decisional theory. However, it seems amazing that nearly half the oil well cases in Oklahoma would fail to specify a decisional theory. Generally, the no decisional theory cases hold that polluting a water supply or well was unlawful and granted relief. Fourth, underlying all oil well cases in Kansas and Oklahoma are statutes, cited in eighteen Kansas (56%) and sixty-six Oklahoma cases (62%), which

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103 *Hayes v. State*, 496 S.W.2d 372, 375 (Ark. 1973); *Kerpelman v. Maryland Bd. of Public Works*, 276 A.2d 56, 61 (Md. 1971), *cert. denied* 404 U.S. 858 (1971); *Muench v. Public Serv. Comm'n*, 53 N.W.2d 514, 519, 55 N.W.2d 40, 45 (Wis. 1952); *see on navigability generally*, 4 WATER AND WATER RIGHTS, *supra* note §§ 32.01-.03; Ausness, *Water Rights, The Public Trust Doctrine, and the Protection of Instream Uses*, 1986 U. ILL. L. REV. 407, 433-34 (1986); Davis, *State Ownership of Beds of Inland Waters – A Summary and Reexamination*, 57 NEB. L. REV. 665, 674-76 nn. 50-51, 680-81 nn. 68-71, 699-700 n. 152 (1978); Johnson & Austin, *Recreational Rights and Titles to Beds on Western Lakes and Streams*, 7 NAT. RESOURCES J. 1, 33-52 (1967).
104 *Commonwealth v. City of Newport News*, 164 S.E. 689, 691 (Va. 1932).
105 *City of Hampton v. Watson*, 89 S.E. 81 (Va. 1916).
106 *Commonwealth v. City of Newport News*, 164 S.E. 689, 691 (Va. 1932).
107 *Evans v. City of Johnstown*, 410 N.Y.S.2d 199, 207 (N.Y. Sup. Ct. 1978) (dictum) [doctrine rejected].
108 *Id.*; *Commonwealth v. City of Newport News*, 164 S.E. 689, 691 (Va. 1932).
109 *Maine v. M/V Tamano*, 357 F.Supp. 1097, 1099-1101 (D. Me. 1973).
110 *Kerpelman v. Maryland Bd. of Public Works*, 276 A.2d 56, 61 (Md. 1971), *cert. denied* 404 U.S. 858 (1971); *State v. Deetz*, 224 N.W.2d 407, 413 (Wis. 1974).
111 *See e.g.*, Muench v. Public Serv. Comm'n, 53 N.W.2d 514, 522, 55 N.W.2d 40 (Wis. 1952).
112 *See e.g.*, MICH. COMP. L. ANN. § 691.1202 (1987) (MICH. STAT. ANN. § 14.528(202) (Callaghan 1980); *State v. Deetz*, 224 N.W.2d 407, 413 (Wis. 1974).
113 *See e.g.*, *Kerpelman v. Maryland Bd. of Public Works*, 276 A.2d 56, 60 (Md. 1971), *cert. denied* 404 U.S. 858 (1971).
114 *Burgess v. M/V Tamano*, 370 F.Supp. 247 (D. Me. 1973), *aff'd mem.* 559 F.2d 1200 (1st Cir. 1977).
115 *Maine v. M/V Tamano*, 357 F.Supp. 1097 (D. Me. 1973); *Maryland, Dep't of Natural Resources v. Amerada Hess Corp.*, 350 F.Supp. 1060 (D. Md. 1972); *State, Dep't of Envt'l Prot. v. Jersey Cent. Power & Light Co.*, 351 A.2d 337 (N.J. 1976).
116 *Commonwealth v. City of Newport News*, 164 S.E. 689 (Va. 1932) [sewage polluted oyster bed in navigable waters].
117 *Evans v. City of Johnstown*, 410 N.Y.S.2d 199, 207 (N.Y. Sup. Ct. 1978).
118 *See* Tables A-D.

prohibited polluting a domestic or livestock water supply with brine or wastes discharged from an oil and gas well.[119] Probably, the existence of those statutes was so well known that they formed the unstated basis for the no decisional theory cases involving oil well discharges.

The dominance of private nuisance, public nuisance, negligence, and riparian rights doctrines suggests that many plaintiffs are not aware of the other doctrines which may be used to deal with water pollution problems. The large proportion of no decisional theory cases in Oklahoma (31%) and Kansas (18%), however, suggests that lawyers pleading plaintiffs' cases and judges may be unaware of any of the doctrines which might be used.[120]

Part II
Patterns in Fact Situations and Doctrines in Cases in Missouri and the Midwest

Kansas, Missouri, and Oklahoma have had 375 cases, over twenty percent of the common law water pollution decisions reported nationwide. As shown in Table A, in Kansas and Missouri, private nuisance dominates the water pollution cases. In Kansas, private nuisance is followed by statutory liability, while in Missouri it is followed by negligence. In Oklahoma, "no decisional theory" and statutory liability dominate, followed by negligence and private nuisance.

In three other surrounding states, as well, Arkansas, Illinois and Iowa, private nuisance dominates, followed by negligence in Arkansas, public nuisance and riparian rights in Illinois, and riparian rights in Iowa. These trends remain fairly constant, with some variation when looking at the specific types of impacted watercourse, as shown in Tables B-D.

In Missouri and Oklahoma, the largest number of cases concern surface water pollution, while in Kansas, the largest number of cases concern groundwater pollution. Some variations may be attributable to the fact that Oklahoma has much more pollution from oil and gas development than does Missouri. Kansas, however, also has more oil and gas development than Missouri, yet shows different case trends than Oklahoma.

Interestingly, as shown in Table E, in most states in the region, including Missouri, plaintiffs were successful in over 70 percent of the cases with relief generally in the form of damages. In Iowa, however, plaintiffs were successful in only sixty-one percent of the cases with relief generally in the form of damages, in line with the national pattern. Only in Illinois did injunctions form an important element of relief.

This article intends to enlarge understanding of the doctrines used in water pollution cases along with other factors present in the cases. To accomplish this, I have outlined how these doctrines apply in water pollution situations and have cited representative cases. This analysis should improve understanding of case precedent and facilitate use of the various doctrines in water pollution cases in the future by attorneys dealing with water pollution.

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119 Kan. Stat. Ann. § 55-904(a)(1) (Supp. 1992) [regulatory authority over brine disposal]; Okla. Stat. Ann. § 17:53 (1986) [plugging abandoned oil wells], and § 52:29 (1991) [pollution of livestock water with oil well brine].
120 *See* Table A.

KEY: PrN-Private Nuisance PuN-Public Nuisance Neg-Negligence RR-Riparian Rights PA-Prior Appropriation GW-Groundwater Allocation Rules DSW-Diffused Surface Water SL-Strict Liability T-Trespass UT-Unconstitutional Taking StL-Statutory Liability NDT-No Decisional Theory PT-Public Trust TT-Total

Table A
WATER POLLUTION CASES
(state v. doctrine - 1401 cases)

	PrN	PuN	Neg	RR	PA	GW	DSW	SL	T	UT	StL	NDT	PT	TOT
AR	14	4	5	2	-	-	-	-	-	2	-	2	-	29
IL	17	9	4	8	-	-	1	4	1	-	-	3	-	47
IA	16	-	1	2	-	-	-	-	-	-	-	1	-	20
KS	22	4	7	-	-	1	-	5	3	-	18	13	-	73
MO	32	5	8	2	-	-	2	1	2	7	-	6	-	65
OK	33	6	43	-	-	-	1	1	1	-	78	74	-	237
TOT US	531	181	271	222	28	38	22	48	58	48	109	154	8	1718

Table B
WATER POLLUTION CASES -- SURFACE WATERCOURSES
(state v. doctrine - 1401 cases)

	PrN	PuN	Neg	RR	PA	GW	DSW	SL	T	UT	StL	NDT	PT	TOT
AR	10	4	-	2	-	-	-	-	-	2	-	2	-	20
IL	10	6	1	8	-	-	-	-	-	-	-	2	-	27
IA	13	-	-	2	-	-	-	-	-	-	-	-	-	15
KS	12	2	2	-	-	-	-	1	-	-	5	8	-	30
MO	25	5	-	2	-	-	-	-	1	6	-	3	-	42
OK	23	5	24	-	-	-	-	1	1	-	48	54	-	176
TOT US	332	129	96	222	28	-	-	14	20	29	59	105	1	1035

Table C
WATER POLLUTION CASES -- GROUNDWATER
(state v. doctrine - 1401 cases)

	PrN	PuN	Neg	RR	PA	GW	DSW	SL	T	UT	StL	NDT	PT	TOT
AR	3	-	2	-	-	-	-	-	-	-	-	-	-	5
IL	6	3	2	-	-	-	-	4	1	-	-	-	-	16
IA	3	-	1	-	-	-	-	-	-	-	-	-	-	4
KS	9	2	4	-	-	1	-	4	3	-	11	4	-	38
MO	4	-	7	-	-	-	-	-	-	-	-	2	-	13
OK	5	-	8	-	-	-	-	-	-	-	5	6	-	24
TOT US	155	28	126	-	-	37	-	31	20	5	22	18	-	444

Table D
WATER POLLUTION CASES -- DRAINAGE WATER
(state v. doctrine - 1401 cases)

	PrN	PuN	Neg	RR	PA	GW	DSW	SL	T	UT	StL	NDT	PT	TOT
AR	1	-	3	-	-	-	-	-	-	-	-	-	-	4
IL	1	-	1	-	-	-	1	-	-	-	-	1	-	4
IA	1	-	-	-	-	-	-	-	-	-	-	1	-	2
KS	1	-	2	-	-	-	-	-	-	-	3	1	-	7
MO	3	-	1	-	-	-	3	1	1	1	-	1	-	11
OK	5	1	11	-	-	-	1	-	-	-	28	13	-	59
TOT US	37	6	39	-	-	-	23	4	14	8	32	25	-	188

Table E
WATER POLLUTION CASES - RELIEF GRANTED
(state v. remedy - 1401 cases)

	RELIEF					NO RELIEF			
	damages	injunction	both	subtot	remand	facts	law	subtot	total
AR	10	5	-	15	1	4	-	4	20
IL	12	14	-	26	3	5	-	5	34
IA	10	1	-	11	-	6	1	7	18
KS	29	1	-	30	5	3	-	3	38
MO	21	2	1	24	8	5	2	7	39
OK	123	1	-	124	23	19	6	25	172
TOT US	450	158	45	653	186	155	63	218	1057

APPENDIX
MISSOURI WATER POLLUTION CASES

CASENAME, CITATION
DESCRIPTION

PRIVATE NUISANCE

Surface Watercourses

Case	Result
Frank v. Environmental Sanitation Management, Inc., 687 S.W.2d 876 (Mo. 1985). (landfill leachate escaping into stream polluted livestock water)	damages
Bartlett v. Hume-Sinclair Coal Mining Co., 351 S.W.2d 214 (Mo.App. 1961). (mine tailings polluted livestock water and killed crops)	damages
Hillhouse v. City of Aurora, 351 S.W.2d 214 (Mo.App. 1961). (city sewage caused odors around house)	remand for trial
Newman v. City of El Dorado Springs, 292 S.W.2d 314 (Mo.App. 1956). (city sewage polluted livestock water and caused odors around house)	damages
Divelbiss v. Phillips Petroleum Co., 272 S.W.2d 839 (Mo.App. 1954). (oil well brine killed livestock)	damages
Stewart v. City of Springfield, 350 Mo. 234, 165 S.W.2d 626 (1942). (city sewage polluted stream)	no: statute of limitations
Thompson v. City of Springfield, 134 S.W.2d 1082 (Mo.App. 1939). (city sewage caused odors)	no: statute of limitations
Person v. City of Independence, 114 S.W.2d 175 (Mo.App. 1938). (city sewage caused odors around house)	remand for trial
Riggs v. City of Springfield, 96 S.W.2d 392 (Mo.App. 1936), *rev'd* 126 S.W.2d 1144 (Mo.App. 1939). (city sewage caused odors around house)	damages
City of Harrisonville v. W.S. Dickey Clay Mfg. Co., 289 U.S. 234 (1933), *rev'd on other grounds* 61 F.2d 210 (8th Cir. 1932). (inadequately treated city sewage damaged a pasture)	damages, no injunction
McCleery v. City of Marshall, 65 S.W.2d 1042 (Mo.App. 1933). (sewer extension discharged in ravine polluted stream & caused odors around farm)	damages
City of Harrisonville v. W.S. Dickey Clay Mfg. Co., 61 F.2d 210 (8th Cir. 1932 - Mo.), *rev'd on other grounds* 289 U.S. 334 (1933). (inadequately treated city sewage damaged a pasture)	damages, injunction
Kent v. City of Trenton, 48 S.W.2d 571 (Mo. 1931). (city sewage polluted domestic & livestock water and caused odors around house)	no: prescription
Fansler v. City of Sedalia, 176 S.W. 1102 (Mo.App. 1915). (city sewage polluted livestock water)	damages
Luckey v. City of Brookfield, 151 S.W. 201 (Mo. App. 1912). (city sewage polluted livestock water)	no: statute of limitations
Kellogg v. City of Kirksville, 112 S.W.2d 296 (Mo.App. 1908) *and* 129 S.W. 57 (1910) (city sewage polluted domestic & livestock water and caused odors around house)	damages

Case	Result
Smith v. City of Sedalia, 81 S.W. 165 (Mo. 1904). (city sewage polluted domestic & livestock water)	damages
City of Chillicothe v. Bryan, 77 S.W. 465 (Mo.App. 1903). (city sewage polluted livestock water)	no: causation absent
Schumacher v. Shawhan, 67 S.W. 717 (Mo.App. 1902). (food processing wastes polluted domestic & livestock water)	injunction
Smith v. City of Sedalia, 53 S.W. 907 (Mo. 1899). (city sewage polluted domestic & livestock water)	no: comparative convenience doctrine
Martinowsky v. City of Hannibal, 35 Mo.App. 70 (1889). (city sewage caused odors around house)	no: not proven
Smiths v. McConathy, 11 Mo. 518 (1848). (meat processing wastes & farm animal wastes polluted domestic & livestock water and caused odors around house)	remand for trial
Percolating Groundwater	
Village of Claycomo v. Kansas City, 635 S.W.2d 365 (Mo.App. 1980). (leachate from landfill polluted groundwater and wells)	remand for trial
Shelley v. Ozark Pipe Line Corp., 37 S.W.2d 518 (Mo. 1931), *rev'd* 2 S.W.2d 115 (Mo.App. 1927) (pipeline leak pollute domestic well)	damages
Haynor v. Excelsior Springs Light, Power, Heat & Water Co., 108 S.W. 580 (Mo.App. 1908). (oil & grease escaping into creek polluted domestic well)	no: procedural error
Diffused Surface Water	
Hulshof v. Noranda Aluminum, Inc., 835 S.W.2d 411 (Mo. App. 1992). (industrial drainage water containing wastes & toxic chemicals in drainage ditch inundated farm, killing crops & contaminating soil)	injunction
Clark v. City of Springfield, 241 S.W.2d 100 (Mo.App. 1951). (city combined sewer overflow flowed onto residential land, causing odors around houses & polluting domestic well)	damages
Bower v. Hog Builders, Inc., 461 S.W.2d 784 (Mo. 1970). (feedlot sewage lagoon effluent, with accumulated surface water, flowed past farmhouse, caused odors & polluted livestock pond)	damages
Surface Contaminant Flow (without drainage water)	
Bower v. Hog Builders, Inc. [see Diffused Surface Water]	damages

PUBLIC NUISANCE

Case	Result
Surface Watercourses	
State ex rel. Dresser Indus., Inc. v. Ruddy, 592 S.W.2d 789 (Mo. 1980). (barite mine settling basin ruptured, discharging mine tailings into river)	remand for trial
Stewart v. City of Springfield [see Private Nuisance]	no: statute of limitations
State ex rel. Wear v. Springfield Gas & Elec. Co., 204 S.W. 942 (Mo.App. 1918). (industrial waste polluted livestock water and killed fish)	no: not proven

Schoen v. Kansas City, 65 Mo.App. 134 (1895) (city sewage polluted stream & caused odors around houses)	remand for trial
Edmondson v. City of Moberly, 11 S.W. 990 (Mo. 1889). (city sewage polluted stream & caused odors around house)	remand for trial

NEGLIGENCE

Percolating Groundwater

Reddick v. Pippin, 421 S.W.2d 225 (Mo. 1967). (sewage lagoon overflow allegedly polluted domestic well)	no: no causal connection
Bollinger v. Mungle, 175 S.W.2d 912 (Mo.App. 1943). (gas station gasoline leak polluted domestic well)	no violation of right
Ozark Pipe Line Corp. v. Decker, 32 F.2d 66 (8th Cir. 1929). (oil pipeline leaks polluted domestic & livestock well)	no: no causal connection
Shelley v. Ozark Pipe Line Corp., 2 S.W.2d 115 (Mo.App. 1927), *rev'd on other grounds* 37 S.W.2d 518 (Mo. 1931). (pipeline leak polluted domestic well)	procedural error
Chapman v. American Creosoting Co., 286 S.W. 837 (Mo.App. 1926). (creosote escaping into ditch saturated ground and polluted domestic well)	procedural error
Shelley v. Ozark Pipe Line Corp., 247 S.W. 472 (Mo.App. 1923). (pipeline leak polluted domestic well)	damages
Haynor v. Excelsior Springs Light, Power, Heat & Water Co. [see Private Nuisance]	procedural error

Diffused Surface Water

Casanover v. Villanova Realty Co., 209 S.W.2d 556 (Mo.App. 1948). (subdivision drainage scoured driveways, penetrated basement walls & left clay deposit on land)	no: not entitled to relief under rule

RIPARIAN RIGHTS: REASONABLE USE RULE

Surface Watercourses

City of Cape Girardeau v. Hunze, 284 S.W. 471 (Mo. 1926). sewer might pollute stream; "reasonable use" applied in eminent domain case)	eminent domain compensation (city amount upehld
Joplin Consol. Mining Co. v. City of Joplin, 27 S.W. 406 (Mo. 1894). (city sewage might pollute ore washing water)	no: procedural error

DIFFUSED SURFACE WATER RULES: COMMON ENEMY RULE

Diffused Surface Water

Wells v. State Highway Comm'n, 503 S.W.2d 689 (Mo. 1973). (soil erosion silt in drainage water filled lake bed)	damages
Casanover v. Villanova Realty Co. [see Negligence]	no: not entitled to relief under rule

TRESPASS

Diffused Surface Water

Wells v. State Highway Comm'n [see Diffused Surface Water-Common Enemy]	damages

UNCONSTITUTIONAL TAKING

Case	Result
Surface Watercourses	
Lewis v. City of Potosi, 317 S.W.2d 623 (Mo.App. 1958). (treated city sewage polluted domestic & livestock water)	damages
King v. City of Rolla, 130 S.W.2d 697 (Mo.App. 1939). (treated city sewage polluted livestock water & caused odors)	no: statute of limitations
Riggs v. City of Springfield, 126 S.W.2d 1144 (1939), *rev'd* 96 S.W.2d 392 (Mo.App. 1936). (city sewage caused odors around house)	no: statute of limitations
Smith v. City of Sedalia, 149 S.W. 597 (Mo. 1912). (city sewer polluted a stream at a farm)	res judicata
Diffused Surface Water	
Wells v. State Highway Comm'n [see Diffused Surface Water-Common Enemy]	damages

PRESCRIPTION

Case	Result
Surface Watercourses	
Riggs v. City of Springfield [see Unconstitutional Taking]	no: stat. of limitations
Kent v. City of Trenton [see Private Nuisance]	prescriptive rt. acquired
Fansler v. City of Sedalia [see Private Nuisance]	damages
City of Chillicothe v. Bryan [see Private Nuisance]	prescriptive rt. acquired
Smith v. City of Sedalia [see Private Nuisance]	no: comparative convenience doctrine

NO DECISIONAL THEORY

Case	Result
Surface Watercourses	
Lewis v. City of Potosi, 348 S.W.2d 577 (Mo.App. 1961). (treated city sewage polluted domestic & livestock water)	damages
Percolating Groundwater	
Windle v. City of Springfield, 8 S.W.2d 61 (Mo. 1928), *transferred from* 275 S.W. 585 (Mo. App. 1925). (city sewage discharged into cave polluted spring & lake and caused odors)	damages
Diffused Surface Water	
Manner v. H.E.T., Inc., 739 S.W.2d 724 (Mo.App. 1987). (subdivision construction caused mud & debris to flow with surface water onto neighbor's land)	no: no causal connection

GROUNDWATER ALLOCATION RULES
STRICT LIABILITY
STATUTORY LIABILITY
PUBLIC TRUST DOCTRINE

There were no Missouri cases using these theories.