

Notre Dame Law School

NDLScholarship

Journal Articles

Publications

1963

Surface Water in Indiana

Thomas L. Shaffer

Notre Dame Law School, thomas.l.shaffer.1@nd.edu

Follow this and additional works at: https://scholarship.law.nd.edu/law_faculty_scholarship



Part of the [Environmental Law Commons](#)

Recommended Citation

Thomas L. Shaffer, *Surface Water in Indiana*, 39 *Indiana Law Journal* 69 (1963).

Available at: https://scholarship.law.nd.edu/law_faculty_scholarship/639

This Article is brought to you for free and open access by the Publications at NDLScholarship. It has been accepted for inclusion in Journal Articles by an authorized administrator of NDLScholarship. For more information, please contact lawdr@nd.edu.

10-1-1963

Surface Water in Indiana

Thomas L. Shaffer
Notre Dame Law School

Follow this and additional works at: <http://www.repository.law.indiana.edu/ilj>



Part of the [Environmental Law Commons](#), and the [Water Law Commons](#)

Recommended Citation

Shaffer, Thomas L. (1963) "Surface Water in Indiana," *Indiana Law Journal*: Vol. 39: Iss. 1, Article 3.
Available at: <http://www.repository.law.indiana.edu/ilj/vol39/iss1/3>

This Article is brought to you for free and open access by the Law School Journals at Digital Repository @ Maurer Law. It has been accepted for inclusion in Indiana Law Journal by an authorized administrator of Digital Repository @ Maurer Law. For more information, please contact wattn@indiana.edu.



LAW LIBRARY
INDIANA UNIVERSITY
Maurer School of Law
Bloomington

SURFACE WATER IN INDIANA

THOMAS L. SHAFFER †

It is carried by kind winds, and falls in rustling curtains of liquid drapery over all the thirsty woods and fields, and fixes in God's mystic eastern heavens his beautiful bow of promise, glorified with a radiance that seems reflected out of heaven itself. It gleams in the forest crystals of the myriad forests of the world, and tints each fruit and flower. It is here in the grass blades of the meadows, and there where the corn waves its tassels, and the wheat is billowing.¹

Emery A. Storrs composed that tribute in answer to the barroom challenge that not even he could be eloquent about water. He intended it as a temperance speech, but the probability is that no one followed it, least of all Storrs himself. Eloquence aside, and with deference to Samuel Taylor Coleridge, men ordinarily think of water only when they are out of it or being flooded by it. Given the possibility that Indiana may be critically short of water before this century ends, the inquiring purpose of this paper is whether the courts of that state are looking less at the future need for water than at the past abundance of it.

Surface water in Indiana has always been regarded as a nuisance, even in the unusually dry growing season of 1963. "A river," Justice Holmes once said, "is more than an amenity. It offers a necessity of life that must be rationed among those who have power over it."² In a state that faces a dearth of water in its future and remembers with too little concern the abundant water of its past, this should be true of rivers under the ground and rivers without banks, as much as it has become true of the Wabash, the St. Joseph, and the Ohio. Thus the first part of this paper has been devoted to summarizing the scientific classifications of surface water and the climatic factors which produce it; the next to tracing the development of rules of law on using, disposing of, and guarding against surface water flow, and the last part to outlining the more prominent facts involved in meeting future water demands in Indiana and evaluating whether the present rules of law accommodate the governmental and private efforts required to meet the demands.

† Assistant Professor of Law, Notre Dame Law School.

1. Storrs, *Apostrophe to Water*, in *GREAT SAYINGS BY GREAT LAWYERS* 677 (Clark ed. 1926).

2. *New Jersey v. New York*, 283 U.S. 336, 342 (1931).

I. SOURCES AND SCIENTIFIC CLASSIFICATIONS

A. *The Hydrologic Cycle*

The science of hydrology classifies all humanly usable water within a single system of study, usually calling it the "hydrologic cycle" or the "water cycle."³ The cycle operates from a depth of about half a mile below the earth's surface to an atmospheric altitude of about 10 miles. It has no temporal ending or beginning, and classifications of water according to where the water is at the moment or where it is going to go next are always and necessarily tentative. Arbitrarily beginning at the point of evaporation, the earth's land masses and oceans send gaseous water into the atmosphere. The atmosphere returns it in the form of rain or snow. Water from rain and snow either soaks into the ground, runs over the surface, or evaporates. But these categories are not exclusive. The water that runs over the surface may soak into the ground, and the part that soaks into the ground may evaporate and re-enter the atmosphere. The law has tended to sub-classify water running over the surface as "watercourse water" and "surface water," and to regard the latter category as a natural state of affairs. In most states in the United States it is regarded as a nuisance. The thesis of the paper will be that the classification is unnatural and wasteful.

Numerous natural events affect the water cycle. For instance, heat largely controls evaporation, and wind shifts masses of water-saturated air and effects precipitation. Man-made factors affect it also, but to date the man-made factors of greatest potency are incidental rather than intended. Urban areas are likely to have more rainfall than rural, possibly because of artificial heating, atmospheric pollution, or what one scientist calls the "increased friction of buildings and trees."⁴ Man-made projects greatly alter water run-off, often incidentally, but to an increasing extent under modern farming procedures by design. Seeding of certain forage crops has been found to impede evaporation, and

3. HOUSE COMM. ON INTERIOR & INSULAR AFFAIRS, GROUND WATER REGIONS ON THE UNITED STATES—THEIR STORAGE FACILITIES 1-3, 45, 51 (1952) [hereinafter cited as GROUND WATER REGIONS REP.]; INDIANA DEP'T OF PUBLIC INSTRUCTION, CONSERVATION OF WATER 15-26 (1946); INDIANA WATER RESOURCES STUDY COMM., INDIANA WATER RESOURCES 5 (1956); TODD, GROUND WATER HYDROLOGY 1-44 (1959); Ackerman, *Factors That Affect the Water Cycle*, and Wadleigh, *Relations Between Soil Conservation Practices and the Availability of Water*, in WATER AND AGRICULTURE (Hockensmith ed. 1960); JOHNSTONE & CROSS, ELEMENTS OF APPLIED HYDROLOGY, ch. 1, 5, 8 (1949). These authorities all describe and discuss the hydrologic cycle. The text discussion is based on and abstracted from each of them, but is not specifically dependent on any one, except as noted. See also Piper & Thomas, *Hydrology and Water Law: What Is Their Future Common Ground*, in WATER RESOURCES AND THE LAW 7 (1958).

4. Ackerman, *supra* note 3.

almost any kind of plant life tends to raise the level of ground water (the "water table") and to increase natural water storage.⁵

Although the law has generally distinguished between subterranean water and surface and watercourse water, the scientists recognize that the two are interrelated phases of the hydrologic cycle. Water which is stored in the earth at a point where "all the pores in the containing rock materials are saturated,"⁶ is usually called ground water. All ground water which is useful to man comes from rain and snow "which infiltrated into the soil or other earth material at some point, percolated to the zone of saturation, and then may have moved underground for some distance before reaching its present destination."⁷ Water contained in earth material between the surface and the point of saturation is considered within the zone of aeration—i.e., subsurface but subject to evaporation either directly or after being absorbed by plant life. Whether that water is surface water or ground water is not a problem that appears to perplex the scientist; he sets very little store by the distinction anyway.

Ground water is, however, important to human consumption on the surface. In those areas of the country where underground natural water storage is good, streams tend to flow steadily, because springs, i.e., percolating ground water, take over where melting snow and seasonal rain stop.⁸ Ground water is also available for well drilling, of course; in fact much of the northern half of Indiana gets its water for human consumption from wells.⁹

If the ground water supply in Indiana is kept constant or improved, its use for irrigation in critical months is an agricultural practice that will presumably expand, resulting in the estimation of scientists in greater economic security for farmers and in increased crop yields. Regardless of whether irrigation water comes from wells or streams, the key source of it will be the natural ground water storage which exists in the state.¹⁰

Of all the water that falls on the surface of Indiana, about a third runs off, a tenth replaces ground water, and the rest is stored on the

5. *Ibid.*; INDIANA FLOOD CONTROL & WATER RESOURCES COMM'N, PROGRESS REPORT—DECEMBER, 1960.

6. GROUND WATER REGIONS REP. 3.

7. *Ibid.*

8. *Id.* at 51.

9. *Ibid.*; INDIANA FLOOD CONTROL & WATER RESOURCES COMM'N, *supra* note 5; Kellum, *Rains Came to State—But Need for Water Conservation Remains*, The Indianapolis Star, July 14, 1963, § 2, p. 2; COOPERATIVE EXTENSION SERVICE, PURDUE UNIV., WATERSHED WATER (1962).

10. This is discussed in Part III *infra*, and in the authorities there cited.

surface, used or evaporates.¹¹ Perhaps most of the third that runs off would be classified by the law as watercourse water, but certainly a substantial part of it would be classified as surface water—*i.e.*, as a nuisance in Indiana jurisprudence. The increasing demands made upon Indiana water resources,¹² the possibility of a future, general water shortage, and the present reality of seasonal water shortages in the state¹³ make that sort of legal reasoning a foolish luxury. Both the legislature and judges should be alert for opportunities to do something about it.

B. Climatic Factors

Indiana's weather is largely dictated by two opposing forces—polar air moving southeast and tropical air moving northeast. "The action between these two masses . . . fosters the development of the low pressure centers which . . . frequently pass through or near Indiana, resulting in normally abundant rain."¹⁴ Lake Michigan produces specific variations in climate in Lake, Porter and LaPorte Counties, where the annual precipitation, particularly in snowfall, is above average for that end of the state.¹⁵ While there are floods in Indiana during virtually every month of every year, winter and spring are the major flood seasons.¹⁶ Heavy rains are usually the principal cause, although melting

11. COOPERATIVE EXTENSION SERVICE, PURDUE UNIV., WATER MANAGEMENT THROUGH WATERSHEDS (1962).

12. See notes 198-206 *infra* and accompanying text.

13. This subject is developed more systematically in Part III *infra*; it is discussed generally in Kellum, *supra* note 9, and in the two recent publications of the COOPERATIVE EXTENSION SERVICE, *supra* notes 9 & 11.

14. WEATHER BUREAU, U.S. DEP'T COMMERCE, CLIMATOLOGY OF THE UNITED STATES, No. 60-12, CLIMATES OF THE STATES, INDIANA 1 (1959); see Kellum, *supra* note 9 and COOPERATIVE EXTENSION SERVICE, *supra* note 11, at 3. The average amount of rain is 43 inches a year in the southern part of the state and 36 inches in the north. WEATHER BUREAU, *supra*, at 2. Then too, Indiana has always had erratic periods of heavy rainfall; storms in which more than two inches fall in an hour are not unheard of at either end of the state. *Id.* at 2.

15. The benefit from this is questionable, since melting snow in spring in those counties tends to cause flooding and reduces the soil's ability to absorb spring rain. *Id.* at 1.

16. Drainage from Indiana is ultimately into one of the Great Lakes or into the Mississippi River, and even more ultimately into the Atlantic Ocean. More locally, most of the state—24,000 square miles—is within the Wabash River System. *Ibid.* Also, the St. Joseph and Kankakee Rivers drain 4,550 square miles in the northwestern corner of the state, and the Ohio River drains 3,082 in southern Indiana. *Id.* at 2; INDIANA WATER RESOURCES STUDY COMM., *supra* note 3, at 10; INDIANA FLOOD CONTROL & WATER RESOURCES COMM'N, *supra* note 5, at 79-80.

The watershed areas of the state can be illustrated by a chart, abstracted from INDIANA WATER RESOURCES STUDY COMM., *supra* note 3, at 10.

snow and ice jams have also figured in past floods.¹⁷ In at least 12 years Indiana has had generalized or uniquely serious floods.¹⁸

Aside from rain and snow, there are four climatic factors which affect the usefulness of surface water and the enormity of the harm it can do:

1. Topography. Water which falls on a hill is less beneficial than water falling on a flat field because less is absorbed by the crop, less is absorbed below the zone of aeration into the underground water storage area,¹⁹ and hilly fields are more susceptible to erosion from vagrant surface water.²⁰ Indiana's topography varies; altitude varies from 300 feet at the mouth of the Wabash River to 1,200 feet in Randolph and Steuben Counties. While south-central Indiana is rugged in relief, the Kankakee Valley is virtually flat.²¹ All of these topographical factors affect not only the use that can be made of surface water, but even the amount of rain that falls.²²

WATERSHED AREAS AND RUNOFF IN INDIANA

	<i>Watershed Drainage Area (in square miles)</i>	<i>Average Annual Runoff per Square Mile (in millions of gallons)</i>	<i>Average Annual Total Runoff (in billions of gallons)</i>
Lake Michigan	386	186	71.8
St. Joseph Riv.	1,634	200	326.8
Kankakee Riv.	2,916	189	551.1
Maumee Riv.	1,284	175	224.7
Tippecanoe Riv.	1,920	200	384.0
Upper Wabash Riv.	3,751	193	723.9
Mid-Wabash Riv.	4,245	195	827.8
Wabash Riv. below Terre Haute	1,775	196	347.9
Upper White Riv.	2,435	203	494.3
Lower White Riv.	3,160	222	701.5
Upper E. Fk. White Riv.	2,333	234	545.9
Muscatatuck Riv.	1,110	257	285.3
Lower E. Fk. White Riv.	2,360	257	606.5
Patoka Riv.	860	283	243.4
Whitewater Riv.	1,355	227	307.6
Laughery Creek	930	245	227.9
Mid-Ohio	907	292	264.8
Lower Ohio	2,175	311	676.4
Total	35,536	220	7,811.6

The runoff statistics are based on the period of 1930-1954 inclusive.

17. WEATHER BUREAU, *supra* note 14, at 2; INDIANA WATER RESOURCES STUDY COMM., *supra* note 3, at 10.

18. WEATHER BUREAU, *supra* note 14, at 2. The years listed by the Weather Bureau are 1828, 1847, 1875, 1904, 1913, 1916, 1930, 1937, 1943, 1950, 1958 and 1959.

19. *Id.* at 1-2.

20. INDIANA DEPT OF PUBLIC INSTRUCTION, *supra* note 3, at 24.

21. WEATHER BUREAU, *supra* note 14, at 1-2.

22. See Ackerman, *supra* note 3.

2. Soil composition. Some soils absorb water better than others. If water from rain and melting snow is not absorbed, it floods, erodes and earns its reputation as a nuisance. Glacial soil in northern Indiana generally stores water better than the clay soil of the central part of the state, or the shallow soil in southern Indiana which rests on relatively non-porous limestone deposits.²³ On the other hand, farmers with absorbing soil sometimes need more rain. This is true in the northern counties of Indiana, which have sandy soil, and of the limestone areas where the soil deposit is shallow.²⁴

3. Evaporation. Evaporation, which depends on heat and wind and a number of other factors, some of them man-made,²⁵ can have a marked effect on the way men regard surface water. During a normal summer in Valparaiso and Evansville, for instance, six or eight inches of uncovered water will evaporate in a month; in both of these cities three or four inches evaporate in the relatively cool months of April and October.²⁶ Such a rate of evaporation in the zone of aeration obviously has an effect on growing crops and on the need for fresh supplies of water.

4. Growing season. If greatest precipitation occurs in the growing months the surface water problems of farmers tend to be less serious. As the greatest amount of water is needed in those months there is less tendency to regard it as a nuisance. The footnote chart²⁷ indicates the

23. WEATHER BUREAU, *supra* note 14, at 2; INDIANA WATER RESOURCES STUDY COMM., *supra* note 3; GROUND WATER REGION REP.

24. *Ibid.*, especially GROUND WATER REGION REP. 45, 51.

25. See Ackerman, *supra* note 3.

26. WEATHER BUREAU, *supra* note 14, at 3; Ackerman, *supra* note 3.

27. This is abstracted from charts in WEATHER BUREAU, *supra* note 14, at 4, 5, 7. The growing season dates are based on a 29-year study at Madison and 30-year studies at the other locations. The rainfall is based on the period 1921-1950 at Evansville and the South Bend Airport, and on the period 1931-1955 in the other locations. Measurements as to growing season in the South Bend area were taken at the Moreau Seminary, University of Notre Dame, but rainfall data on that area was taken at the South Bend Airport.

RAINFALL AND GROWING SEASONS IN INDIANA

	Last Freeze	First Freeze	Heaviest Rain	Lightest Rain	Growing Season Heaviest	Growing Season Lightest	Average Annual Rain
Evansville	4/2	11/4	Mar. 4.29	Feb. 2.95	May 3.90	Oct. 2.92	41.37
South Bend	4/30	10/19	May 3.84	Feb. 1.56	May	Oct. 2.99	35.59
Madison	4/19	10/26	Mar. 5.23	Oct. 2.58	June 4.23	Oct.	44.26
Salem	4/24	10/15	Mar. 5.01	Oct. 2.79	June 4.43	Oct.	44.73
Richmond	5/1	10/11	June 4.36	Feb. 2.22	June	Oct. 2.72	37.80
Crawfordsville	5/1	10/11	Mar. 4.57	Feb. 2.11	May	Oct. 2.83	39.11
Huntington	5/6	10/8	May 4.04	Feb. 2.11	May	Sept. 2.92	37.30
Angola	5/6	10/16	June 4.01	Feb. 1.97	June	Oct. 2.84	35.47

correlation between rainfall and growing seasons in Indiana. It demonstrates that four areas have their heaviest rainfall in March, six weeks to two months before the growing season begins; the remainder have their heaviest rainfall near the beginning of the growing season. In two areas the month of lightest rainfall is during the growing season, a time when rain is important, and in all of the other areas the lightest rainfall occurs at the extreme end of the growing season.²⁸

All of the above climate factors affect the attitudes of men toward the water that falls on them. Presumably, the attitudes of men are what shape the attitudes of judges, and result in legal rules that, for instance, keep farmers from having gun battles over the diversion of unwanted rain water. These climatic factors are important to leaders of government, to scientists, and to cooperative landowners in their joint and several efforts to make something besides a nuisance out of surface water in Indiana. If the courts of Indiana have not recognized all of the relevant facts in shaping a law of surface water for the state, perhaps the state's galloping water consumption and the current water shortages will occasion changes in judicial attitude.

II. THE INDIANA LAW OF SURFACE WATER

A. General Position

It may be useful to suggest at once the legal position Indiana is said to occupy on the question of surface water disposal. The term disposal is used advisedly, because it is generally conceded that a landowner may utilize surface water which is on his land, provided his use is not harmful to his neighbors.²⁹ Jurisdictional differences in the law of surface water were previously put into two camps: (1) the "common enemy" or "common law" approach, which is predicated on rugged individualism and the theory that surface water is a nuisance, and (2) the "civil law" or "natural servitude" approach which, in effect, establishes an easement over the lower landowner's land in favor of the upper land-

LaPorte	5/7	10/8	May 5.74	Feb. 2.83	May	Aug. 4.13	50.03
Kokomo	4/24	10/22	May 4.52	Dec. 2.32	May	Aug. 2.85	38.47

28. Indianapolis has a five-month growing season during which the monthly rainfall over a 45-year period was consistently below average. For example, in 1938 all five months of the growing season had an average rainfall or better, but in 35 of the 45 years the rainfall was below average in three, four or all five of the growing months. INDIANA WATER RESOURCES STUDY COMM., *supra* note 3, at 6.

29. RESTATEMENT, TORTS § 864, comment *b* (1939); 6A AMERICAN LAW OF PROPERTY 187 (1954).

owner for surface water drainage.³⁰ These approaches have been tortured into a compromise based roughly on the Roman maxim *sic utere tuo ut alienum non laedas*.³¹

It has been frequently maintained that Indiana falls into the "common law" camp.³² Certainly the early decisions, and some of the later ones, contain language suggesting that. *Taylor v. Fickas* proclaimed the rule at an early date that "obstruction of surface water or an alteration in the flow of it affords no cause of action in behalf of a person who may suffer loss."³³ Numerous subsequent decisions strengthened this position, permitting the landowner to "fight and ward off [surface water] from his premises by dams, embankments or other available means constructed or used by his own property."³⁴ Indeed, as late as 1958 Indiana authority was cited for that proposition of law that "the lower landowner [is authorized] to cast back surface waters without liability."³⁵

But the rule is hardly that well settled. The *sic utere* maxim has entered into the decisions on this subject and, to an even greater extent, into the opinions. Even in *Taylor v. Fickas* the court warned that in exercising his common enemy rights a landowner must do "no act inconsistent with the due exercise of dominion over his own soil,"³⁶ it then adopted the *sic utere* rule.

In 1891³⁷ the principle was urged on the court that a landowner may fight surface water off his land as best he can; the court said: "[T]here is something of truth in the statement . . . much of error."³⁸ In that case the court clearly adopted the *sic utere* principle, as to an

30. 6A AMERICAN LAW OF PROPERTY 189 (1954); Note, 5 NOTRE DAME LAW. 282 (1930); Note, 32 IND. L.J. 39 (1956); Annot., 59 A.L.R.2d 421 (1958); Dobbins, *Surface Water Drainage*, 36 NOTRE DAME LAW. 518 (1961).

31. Note, 21 NOTRE DAME LAW. 364 (1946); 5 POWELL, REAL PROPERTY 415-16 (1962).

32. 29 INDIANA LAW ENCYCLOPEDIA *Waters* § 52, at 107 (1960); 6A AMERICAN LAW OF PROPERTY 189 (1954), without citation of Indiana authority; Annot., 59 A.L.R. 2d 421, 437, 439, 442 (1958), citing *Gwinn v. Myers*, 234 Ind. 560, 129 N.E.2d 225 (1955); *Capes v. Barger*, 123 Ind. App. 212, 109 N.E.2d 725 (1953); *Watts v. Evansville, M.C. & N.Ry.*, 191 Ind. 27, 129 N.E. 315 (1921).

33. 64 Ind. 167 (1878), citing *Gannon v. Hargadon*, 10 Allen (Mass.) 106 (1865).

34. See *Weis v. City of Madison*, 75 Ind. 241 (1881); *Ramsey v. Ketcham*, 73 Ind. App. 200, 127 N.E. 204 (1919); *Vandalia R.R. v. Yeager*, 60 Ind. App. 118, 123, 110 N.E. 230, 232 (1915); *Gaskill v. Barnett*, 52 Ind. App. 654, 659, 101 N.E. 40, 42 (1912). Note, 5 NOTRE DAME LAW. 282, 284 (1930), citing *Evansville, M.C. & N. Ry. v. Scott*, 67 Ind. App. 121, 114 N.E. 649 (1917).

35. Annot., *supra* note 32; see Note, *supra* note 31.

36. 64 Ind. 167, 173 (1878). The issue in *Taylor* was the owner's right to divert Ohio River flood waters.

37. *Patoka Township v. Hopkins*, 131 Ind. 142, 30 N.E. 896 (1891).

38. *Id.* at 143, 30 N.E. at 896.

upper landowner diverting surface water, and recognized that, as has been said hundreds of times before and since, a landowner may not "collect surface water in an artificial channel, and pour it upon another's land."³⁹ This is a tort principle;⁴⁰ it has none of the rugged individualism of "common enemy" about it because it implicitly calls for interest-balancing. It is, however, a rule of law most applicable to upper landowners, and the Indiana cases have, by and large, confined it to them.⁴¹

On preliminary examination, Indiana's position therefore seems to be: (1) a relatively rigid adherence to the common enemy rule, or, as an Illinois lawyer put it, the "common enemy rule in its original form,"⁴² but only as to lower landowners; and (2) a "modified common enemy rule,"⁴³ or adherence to the interest-balancing, tort principles inherent in the *sic utere* concept as to upper landowners. This is, at least, a starting point for analysis.

B. *The Distinction Between Surface Water and Watercourse Water*

If there were some sort of special legal litmus paper which would turn blue when a drop of "surface water" was put on it, most of these pages would be unnecessary.⁴⁴ Unquestionably, the greatest amount of litigation in this area in Indiana has come out of an attempt to define terms.

If a court or jury determines that a disputed channel is a watercourse, the legal consequences are entirely different from those applied if it is found that the channel contains surface water. Surface water is said to have no public consequences;⁴⁵ in Indiana, certainly, it is most often considered a nuisance by property owners.⁴⁶ If a landowner wants

39. *Ibid.*; the rule had also been stated in *Weis v. City of Madison*, 75 Ind. 241 (1881).

40. See RESTATEMENT, TORTS § 864 (1931); PROSSER, TORTS 399 (2d ed. 1955).

41. *Newton v. Lyons*, 120 Ind. App. 465, 90 N.E.2d 917 (1950), illustrates this. The court there confined the common enemy rule by saying that "no natural easement or servitude exists in favor of the higher land owner for the drainage of surface water," and then discussed its reasonable use rule in terms of what may be done to the lower land owner. See also *Weis v. City of Madison*, 75 Ind. 241 (1881).

42. *Dobbins*, *supra* note 30, at 523.

43. *Id.* at 524.

44. This legal litmus paper might have the added advantage of bringing the law into a precise correlation with the sciences of hydrology and ecology on the definition of kinds of water. Or at least, if the scientist did not agree, the lawyer would have his litmus paper, which is more persuasive to scientists than words are, to prove the scientist wrong.

45. "They are not *publici juris*, are rarely dedicated to public use and are subject to the proprietary rights of the owner of the land upon which they arise," or of the land to which they may flow. 6A AMERICAN LAW OF PROPERTY 185 (1954).

46. "Proprietors of land have generally been more concerned with their rights to rid themselves of surface waters than with their rights to capture and use them." *Id.* at 188.

to claim it, it is his. The problem usually arises from his not wanting it and, often, from finding that he has a neighbor who is affirmatively opposed to having it.

It may be simpler, in the first instance, to define what in the engineer's definition of surface water is not incorporated in the lawyer's meaning. What the lawyer calls surface water is "run-off from rainfall" in the literature of the water sciences,⁴⁷ to which "surface water" apparently signifies all forms of water on the surface of the earth, as distinguished from that "occupying all the voids within a geologic stratum."⁴⁸ The scientist apparently recognizes only these two kinds of water and does not generally distinguish between watercourse and surface water.⁴⁹ When the two approaches are merged, as they have been in the 1955 Water Conservation Act,⁵⁰ "surface water" is likely to mean something neither lawyer nor scientist will claim. In deference to the scientific approach, it is worth noticing that the law of some states, more arid than Indiana, has adopted it.⁵¹

With very rare exceptions, in the definitions given by courts, water in lakes and ponds will not be surface water.⁵² Water channelled in what is commonly recognized as a river or creek is almost certainly not surface water.⁵³ As the channel gets smaller, however, it may cease to be a watercourse in contemplation of law. It is on this question—the status of small or erratic channels—that the principal problems in defining surface water turn.⁵⁴

Taking the positive approach, surface water is most commonly "diffused,"⁵⁵ which is to say that it is not in a watercourse. That alone is not very helpful, except that "diffused surface water" is more descriptive than "surface water," because it excludes the undiffused in what the engineers call surface water. Moreover, it also suggests the exclu-

47. INDIANA FLOOD CONTROL & WATER RESOURCES COMM'N, *supra* note 5, at 3.

48. *Id.* at 1.

49. *Id.* at 3.

50. IND. ANN. STAT. §§ 27-1402-08 (Burns 1955); see Note, 32 IND. L.J. 39 (1956), and note 54 *infra*.

51. 6A AMERICAN LAW OF PROPERTY 188 (1954); see note 231 *infra*.

52. *Ibid.*

53. *Ibid.*

54. "Surface waters are such as diffuse themselves over the surface on the ground . . . not gathering into or forming any more definite body of water than a mere bog or marsh." BLACK, LAW DICTIONARY 1762 (4th ed. 1951); see IND. ANN. STAT. §§ 27-1402-08 (Burns 1955), which deals with the conservation of what is there termed "surface water," but is defined as "water in any natural stream, natural lake or other natural body of water . . . which may be applied to any useful and beneficial purpose."

55. "Diffused surface water" is the phrase used in 6A AMERICAN LAW OF PROPERTY § 28.61 (1954), and in 29 INDIANA LAW ENCYCLOPEDIA WATERS § 51 (1960). Professor Powell holds to the more traditional phrase. 5 POWELL, REAL PROPERTY 415-16 (1962).

sion of flood water from the definition of a watercourse. Flood water ought to be defined as surface water; if its legal characteristics are to some extent unique, then it is just a special kind of surface water.⁵⁶

The poor substitute for litmus paper, invented by Indiana judges to define surface water, is a series of tests set forth in this state's appellate literature. No one of these is a safe guide, although any one of them has been, in a specific case, the test the court applied. They are, therefore, not rigid and reliable, but merely an indication of the "local and proprietary characteristics"⁵⁷ that seem to have governed decision in this state.

1. Time of flow. The most common test applied by Indiana courts is a measurement of the length of time in an average year that a channel has water in it. In one of the earliest cases on the subject⁵⁸ the Supreme Court held that a channel, although dry at times, "must have a well defined and substantial existence."⁵⁹ Several years later water which followed a roadway embankment was held to be surface water, over the argument that the edge of the road formed a natural watercourse. "A channel," the court said, "may sometimes be dry. There must, however, always be substantial indications of the existence of a stream, which is *ordinarily and most frequently* a moving body of water."⁶⁰

"Ordinarily and most frequently" are the kind of adverbs that are quoted in future cases, being distinguished from "those occasional outbursts of water which, in times of freshets, fill up many marshy places."⁶¹ The presence of the term "most" in the test suggests that the channel must have water in it more than half the time, which may have been too mathematical for future judges. In any event, the test has been ignored. In 1916 the court overlooked it in holding that a natural watercourse does not lose its character because surface water drains into it, and characterized as a natural watercourse "a permanent stream of running water" which need not have a continuous flow.⁶²

2. Bed, Banks and Water. Two early cases⁶³ relied on a treatise

56. BLACK, *op. cit. supra* note 54, 6A AMERICAN LAW OF PROPERTY § 28.61 (1954), and RESTATEMENT, TORTS § 864 (1939), all appear to include flood water permanently separated from the channel as "surface water" or "diffused surface water"; this is developed more fully below.

57. 6A AMERICAN LAW OF PROPERTY 185 (1954).

58. Schlichter v. Phillipy, 67 Ind. 201 (1879).

59. *Id.* at 204.

60. Weis v. City of Madison, 75 Ind. 241, 253 (1881) (Emphasis added.)

61. Hill v. Cincinnati, W. & M. Ry., 109 Ind. 511, 10 N.E. 410 (1886).

62. Trout v. Woodward, 64 Ind. App. 333, 338, 114 N.E. 467, 469 (1916).

63. Schlichter v. Phillipy, 67 Ind. 201 (1879); Taylor v. Fickas, 64 Ind. 167 (1878).

definition of a watercourse as something which "consists of a *bed*, *banks*, and *water*." This may include "a regular flowing stream of water, which at certain seasons is dried up," but cannot include "bursts of water . . . or melting ice which descend from the hills and inundate the country."⁶⁴

3. Name. It has been contended with some force that the fact that the channel has a local name will have importance.⁶⁵ This test has not been prominent in Indiana.

4. The direction of the stream. It is important to notice whether or not the channel is determined to go somewhere.⁶⁶ The Indiana Supreme Court identified a watercourse as "ordinarily flowing in a certain direction,"⁶⁷ which suggests that it could overflow or run backwards part of the time and still be entitled to watercourse treatment, if most of the channel, when it was not dry, tended to flow in a single direction. This direction test was applied in *Vandalia v. Yeager*,⁶⁸ where the landowner had used a given channel to drain his land for some time. The facts that the stream had been cut by nature and that the direction operated to Yeager's advantage until the railroad company interfered were influential in the court's decision, but it was at least equally impressed by the fact that the Yeagers' stream of water had "a continuous flow in one direction."⁶⁹

5. Origin. Certainly if a landowner digs a ditch to drain his land he cannot claim watercourse treatment for it. On the other hand, as the *Yeager* case demonstrates, if nature cuts the channel one badge of a watercourse is present. The hard cases come when both elements have entered into the creation of a stream. In *Gaskill v. Barnett*,⁷⁰ for example, the defendant dammed up an artificial gulley which drained the plaintiff's pond when floods caused the otherwise confined pond to overflow. Use of the artificial channel gave the pond-owner access to a natural channel and bayou. While recognizing the principle that a watercourse does not lose its character because it runs into and out of a

64. ANGELL, WATERCOURSES § 4, in *Schlichter v. Phillipy*, 67 Ind. 201, 205 (1879). See also 2 FARNHAM, WATERS 1562, in *Trout v. Woodward*, 64 Ind. App. 333, 339, 114 N.E. 467, 469 (1916).

65. 6A AMERICAN LAW OF PROPERTY 187 (1954); *id.* 187 n. 11, citing cases from New Mexico, Texas and the Ninth Circuit Court of Appeals.

66. All of the Indiana cases cited above discussed as a factor whether the channel had a defined direction.

67. *Hill v. Cincinnati, W. & M. Ry.*, 109 Ind. 511, 512, 10 N.E. 410 (1886).

68. 60 Ind. App. 118, 110 N.E. 230 (1915).

69. *Id.* at 124, 110 N.E. at 233.

70. 52 Ind. App. 654, 101 N.E. 40 (1912).

pond, the court declined to find a watercourse as the channel was in part artificially made.

6. Usefulness. A sixth inquiry appearing in the Indiana cases is whether the water in the channel is "used and useful." *Trout v. Woodward*⁷¹ recognized this test, having first discounted the traditional definitions as "rather more in the nature of limitations than definitions." It was said that a watercourse must contain water which possesses "that unity of character by which the flow on one person's land could be identified with that on his neighbor's land." This in connection with the treatise definition used in that case⁷²—that water in a watercourse "will furnish the advantages usually attendant upon streams of water"⁷³—suggests a relatively realistic and utilitarian test. It is especially significant in a state blessed with adequate rainfall, where surface water is called vagrant and regarded as a nuisance. In other words, if the water is useful and in a channel, it may very well be deemed watercourse water. Defining channelled water as watercourse water, of course, brings it into the realm of public concern and imposes on it a system of legal rules based on proprietorship. It becomes, as Professor Casner says, *publici juris*.⁷⁴ Applying the result to reach the result sounds illogical, but there is a certain practical value in treating useful water as useful water.

In the oft-cited *Ramsey v. Ketcham*⁷⁵ case the court impliedly imposed this test when it defined surface water as water "of a casual and vagrant character"—i.e., useless water. A relatively recent court definition of a watercourse referred to a "channel which is permanent for all practical purposes."⁷⁶ Perhaps permanence is not identical with usefulness, but usefulness is suggested in an inquiry based on permanence (and distance) and the fact that the water has a constant character as it passes from landowner to landowner.

More directly in point, perhaps, is the approach taken by Professor Powell: "The trend throughout recent decades . . . has been toward a set of rules which will assure the best social utilization of these gifts of nature consistent with a reasonable protection of private land ownership."⁷⁷ "Use of water" is also a key part of the *Restatement of Torts* treatment of surface water; this phrase is there defined as "direct utili-

71. 64 Ind. App. 333, 114 N.E. 467 (1916).

72. See FARNHAM, *op. cit. supra* note 64.

73. *Trout v. Woodward*, 64 Ind. App. 333, 114 N.E. 467, 469 (1916).

74. 6A AMERICAN LAW OF PROPERTY 185 (1954).

75. 73 Ind. App. 200, 127 N.E. 204 (1919).

76. *Gwinn v. Myers*, 234 Ind. 560, 564, 129 N.E.2d 225, 227 (1955).

77. POWELL, *op. cit. supra* note 55, at 416.

zation of the water itself"⁷⁸ and is contrasted with "harm," which is "a loss or detriment of any kind to a person resulting from any cause."⁷⁹ Having limited itself, the *Restatement* adopts a rule of interest-balancing very much like the rule courts follow in nuisance cases:

A possessor's use of the surface waters on his land which consumes them or alters their flow so as to interfere with another's use of them on other land is ordinarily reasonable and the possessor is not subject to liability to the other unless his use is made for the primary purpose of harming the other.⁸⁰

This is the only section in the *Restatement of Torts* which deals with surface water, and it apparently does not comprehend simple diversion, as distinguished from use and deliberate harm. (Simple diversion is, of course, the problem that has most often confronted the Indiana courts.) The *Restatement* recognizes, as the Indiana decisions have implicitly recognized, that surface water is a nuisance:

Surface waters, being casual and vagrant and not part of a defined stream or lake, are seldom susceptible of any beneficial or systematic use. In most cases they interfere with the ordinary uses of land, and most controversies over them arise in connection with their disposal.⁸¹

7. Distance. The *Ramsey*⁸² case and *Gwinn v. Myers*⁸³ both recognized a test of distance in deciding whether a channel is a stream or surface water, and such a test is either implied or expressed in a number of cases which talk about a channel that sometimes wanders and sometimes stays within its banks. The opinion in *Trout v. Woodward* recognized a test based in part on distance in stating the requirement that a watercourse must drain into another watercourse⁸⁴ and in remarking that one man's watercourse water can "be identified with that on his neighbor's land."⁸⁵ Other case law has disclosed that, where water "is diffused over the surface of the ground or . . . temporarily

78. RESTATEMENT, TORTS § 847 (1939).

79. *Id.* § 848.

80. *Id.* § 864.

81. *Id.* § 864, comment b.

82. *Ramsey v. Ketcham*, 73 Ind. App. 200, 127 N.E. 204 (1919).

83. 234 Ind. 560, 129 N.E.2d 225 (1955).

84. See FARNHAM, *op. cit. supra* note 64.

85. 64 Ind. App. 333, 339, 114 N.E. 467, 470 (1916). The precise holding in *Trout* was that a natural watercourse did not lose its character when a segment of it was put into an artificial channel; distance was important to that holding, of course, since the segment was fed and drained by an existing, natural channel.

flows upon or over the surface as the natural elevations and depressions of the land may guide it," it is clear that the distance test is not met.⁸⁶

In reviewing these tests it becomes evident that water will be surface water: (1) when it is in evidence less than about half the time, (2) when it does not stay within its banks very well, (3) when it flows in a channel without local identification, (4) when it fails to keep a steady direction, (5) when its channel, if well defined, is wholly, or in substantial part, man-made, (6) when it is not "used and useful" and (7) when the length of the channel is relatively short. Whether any one of these tests is of value without the others or whether any three of them are of any value without the other four is an open question. They are, like so many other legal guides, the dim edges of a highway that has yet to be improved.⁸⁷

C. Flood Waters

The status of flood waters from what is conceded to be a natural watercourse presents in the cases a distinct problem of classification.⁸⁸ The term "diffused surface water" seems to comprehend water which leaves a natural watercourse,⁸⁹ but there is authority outside Indiana which distinguishes between extraordinary flood water and ordinary flood water, extending surface water treatment only to the latter.⁹⁰ At least one court has stated, more in conformity with hydrological reasoning, that flood water within the "flood plain of the source stream" remains watercourse water.⁹¹ Both of these adjudications arose, however, in states which seem to place more value on "vagrant water" than does Indiana.⁹²

The tendency in the Indiana cases has been to classify flood water as surface water if it leaves its natural watercourse and stays away—if it is "running in different directions or settling in pools and flats" and "ceases to be a part of the stream."⁹³ In 1916 the Appellate Court

86. *Capes v. Barger*, 123 Ind. App. 212, 214, 109 N.E.2d 725, 726 (1953).

87. Examples are contained in PROSSER, *TORTS* § 72 (2d ed. 1955) (nuisance); MECHEM, *OUTLINES OF THE LAW OF AGENCY* §§ 504-11 (3d ed. 1923) (the master-servant relationship); and SCOTT, *LAW OF TRUSTS* §§ 227-27.16 (1960 abr.) (guides to trust investments).

88. The subject is discussed generally in Note, 31 NOTRE DAME LAW. 322 (1956).

89. See note 55 *supra*.

90. *Wellman v. Kelly & Harrison*, 197 Ore. 553, 252 P.2d 816 (1953).

91. *Sund v. Keating*, 43 Wash. 2d 36, 259 P.2d 1113 (1953).

92. As to the position of the arid states see 6A AMERICAN LAW OF PROPERTY 186, 188 (1954), and cases there cited.

93. *New York, C. & St. L.R.R. v. Hamlet Hay Co.*, 149 Ind. 344, 347, 47 N.E. 1060, 1061 (1897).

established as its test whether or not the water is "separated from the main stream so as to prevent its return."⁹⁴

Several cases have resulted from the construction of railroad embankments and bridges. A 1917 case, for instance,⁹⁵ involved a railroad embankment near the Wabash River which tended to divert flood water toward the complaining property owner and to reduce the size of the normal river channel, thereby damaging him. The court ruled the flood area was part of the natural watercourse—at least partly because water which ran over it ran back into the river later. The distinction urged upon and rejected by the court was between a high-water, or flood channel, and the normal riverbed. The court held that the high-water channel was part of the riverbed, noting that the railroad's action also violated its statutory duty to construct its embankment in such a way as to afford security to the rights of contiguous property owners. Precedent was presented to the contrary, but the court thought Indiana authority⁹⁶ required a finding that flood water is not surface water until it leaves its watercourse once and for all.⁹⁷

The 1917 case was held controlling in a similar controversy, where the court extended the flood water rule to include as part of the watercourse "overflow water [which] follows the course of the stream to its outlet or . . . returns to the channel, except in so far as it has evaporated or settled in low places on the overflowed land."⁹⁸ There is language in this case, moreover, which appears to put upon railroads at least a duty of due care to avoid damage from flood waters, a question not generally present in other surface water cases where due care is considered irrelevant.⁹⁹

On the other hand, relatively recent dicta indicate that water leaving a stream in time of flood is surface water if it is permanently separated from the stream.¹⁰⁰ Thus, the court has observed:

94. *Dunn v. Chicago, I. & L.Ry.*, 63 Ind. App. 553, 559, 114 N.E. 888, 890 (1916).

95. *Evansville, N.C. & N.Ry. v. Scott*, 67 Ind. App. 121, 114 N.E. 649 (1917).

96. *New York, C. & St. L.R.R. v. Hamlet Hay Co.*, 149 Ind. 344, 47 N.E. 1060 (1897).

97. *Evansville, M.C. & N.Ry. v. Scott*, 67 Ind. App. 121, 114 N.E. 649 (1917).

98. *Watts v. Evansville, N.C. & N.Ry.*, 191 Ind. 27, 45, 129 N.E. 315, 321 (1921).

99. *Heine v. Bandelier*, 100 Ind. App. 215, 190 N.E.2d 617 (1934); see *Baltimore & O.S.R.R. v. Quillen*, 34 Ind. App. 330, 72 N.E. 661 (1904); *Conner v. Woodfill*, 126 Ind. 85, 25 N.E. 876 (1890). Dean Prosser uses improper surface water diversion as an example of "absolute nuisance," meaning that rights and duties arising under the concept are "fixed and invariable, rather than relative." PROSSER, TORTS 399 (2d ed. 1955). Even where an interest-balancing test is applied in the resolution of surface water cases—as recommended in RESTATEMENT TORTS § 864 (1939)—the balancing is between utility and harm; due care in causing the harm is irrelevant.

100. *Thompson v. Dyar*, 126 Ind. App. 70, 130 N.E.2d 52 (1955); *Cleveland, C.C. & St. L.Ry. v. Woodbury Glass Co.*, 80 Ind. App. 298, 120 N.E. 426 (1923).

[I]f the flood water of a natural watercourse leaves its ordinary channel, and spreads out over adjacent lands, running in different directions or settling in pools and flats, it ceases to be a part of the stream and becomes in effect surface water.¹⁰¹

In these flood water cases there is a predictable tendency for counsel representing the offender to contend that the damaging water was surface water because it came from a sudden storm, by surface drainage, into the watercourse. The contention imposes a virtually unprovable burden on the plaintiff as to causation—*i.e.*, that the sudden augmentation to the stream did not cause the harm. This theory was prominent in the Appellate Court's most recent venture into this subject¹⁰² where the offender had dammed the natural high-water channel of a watercourse. Because the plaintiff there was unable to prove that the water which damaged him either came from the watercourse or was the result of sudden augmentation, the contention was not given a judicial test. If the established rule is followed, the contention as to sudden augmentation should be rejected. Water once in the stream is watercourse water; if it leaves the stream for good, it becomes surface water; if it leaves the stream and returns, it does not lose its character as watercourse water.

D. *The Rights and Duties of Property Owners*

The most intelligent way of classifying the authorities on surface water diversion in Indiana is in terms of what a property owner may do. This approach sub-classifies itself into considerations of what an upper property owner may do to get rid of water, and what a lower property owner may do to avoid getting it. The generalization of this paper so far has been that the upper property owner is subject to all of the limitations of the *sic utere* principle, and the lower property owner is almost fully protected by the logic of the common enemy rule.

1. Upper property owners—the *sic utere* rule. Upper property owners are inclined to want two things with respect to surface water: (1) to use their land fully, with as little worry as the law will allow over what happens to surface water as an unintended consequence and, (2) to divert nuisance water onto the land of other property owners. It is always dangerous to generalize, but a careful prediction would be that the law of Indiana will generally foster the former interest and frustrate the latter interest, where drainage by an upper property owner

101. Cleveland, C.C. & St. L.Ry. v. Woodbury Glass Co., *supra* note 100, at 310, 120 N.E. at 430-31.

102. Thompson v. Dyar, 126 Ind. App. 70, 130 N.E.2d 52 (1955).

is without prescriptive right to which lower property owners are subject, or where the drainage is not by means of a natural watercourse.

One writer has inquired whether the common enemy rule was of any value to a landowner who wanted to drain his water onto his neighbor's land.¹⁰³ Such a rule would be of some value if it were in force, but no analysis of the Indiana cases can proceed very far on the application of the common enemy rule to property owners who already have surface water they do not want.

Several cases on the subject involve municipal improvement and are helpful to the extent the court ostensibly treats a municipality without favor attendant on its government status. In one of the earliest cases, a property owner claimed that a city street improvement acted as a dam in channelling surface water onto his land. Then the court appears to have given the municipal defendant some peculiar advantage—holding that it had a duty only to provide a non-negligent execution of a reasonable plan of city improvement and, further, that it did not have to protect landowners whose land was below street grade.¹⁰⁴ That sort of distinction based on a duty is not common in surface water cases.¹⁰⁵ But beyond those special considerations, the court said a city had any citizen's right to fight surface water; it had only to avoid *channelling* surface water onto its neighbors' lands.¹⁰⁶ That is the general statement of the rule.¹⁰⁷

In *Patoka Township v. Hopkins*,¹⁰⁸ a township was held to have created a nuisance (not a negligent harm) when it constructed a system of roadside ditches. "A public corporation has no more right to collect water in an artificial channel, and cause it to flow upon the land of another . . . than has a private landowner."¹⁰⁹ And the court went on to distinguish earlier precedent which gives a sort of "due care" protection to municipalities for street improvement, stating that the rule did not apply where the municipality constructs artificial ditches to divert surface water. In other words the municipality, like anyone else, may make nor-

103. Note, 21 NOTRE DAME LAW. 364 (1946), discussing *Watts v. Evansville, N.C. & N.Ry.*, 191 Ind. 27, 129 N.E. 315 (1921).

104. 2 DILLON, MUNICIPAL CORPORATIONS § 1051, in *Weis v. City of Madison*, 75 Ind. 241 (1881).

105. See note 99 *supra*.

106. *Weis v. City of Madison*, 75 Ind. 241 (1881).

107. 29 INDIANA LAW ENCYCLOPEDIA *Waters* § 53, at 111 (1960). Some later authority adopts the court's primary approach—that a city occupies a special situation in street improvement—one opinion stating "that a municipal corporation is not liable for consequential damages caused by the grading and improvement of its streets, unless the work was negligently performed." *Davis v. City of Crawfordsville*, 119 Ind. 1, 2, 21 N.E. 449 (1888). But other cases give no such special advantage to municipal corporations.

108. 131 Ind. 142, 30 N.E. 896 (1891).

109. *Id.* at 143, 30 N.E. at 896.

mal use of its land without undue concern over what diverted surface water does to contiguous property owners, so long as it does not engage in "positive wrong" and channel water onto its neighbors.¹¹⁰ The court did not explore, nor have other Indiana cases explored, the possibility that diversion of water in this arrogant fashion might result in an involuntary and compensable "taking" of a citizen's real property.¹¹¹

There are a few disturbing obstacles in the generalization that a property owner may make normal use of his property without concern about surface water diversion. These obstacles should concern farmers and conservation officials developing programs of contour farming and creating artificial ponds to hold and also, incidentally, to divert surface water flow.¹¹² A case¹¹³ in point involved a Greensburg church building which had been constructed with gutters and downspouts, but without any means to drain the water which ran out of the downspouts, so that water drained onto the plaintiff's adjoining lot. In reversing, the Supreme Court remarked cryptically that "The appellees [church] were trespassers whenever they shed the water from their building so as to throw it upon the appellant's lot."¹¹⁴ The holding was not explained, and it was apparently reached without allusion to the substantial body of law on surface water which had developed prior to 1890. The facts also leave a question in the reader's mind: How many houses in Greensburg at that time provided drainage for rain water coming out of downspouts? If there were few that did not, or if the church's situation was for some reason unusually aggravated, the reported opinion does not say so. Certainly if storm sewers or private provision for storm water was not common in Greensburg in 1890, the church's land use appears to have been reasonable.

A 1904 case involved a railroad right-of-way which collected water and discharged it through a culvert onto plaintiff's land. Based on the proposition stated below, the decision appears to represent existing law in Indiana on the collection of surface water into a body:

110. *Id.* at 144, 30 N.E. at 896. This decision has been followed in later cases, complicated in at least one instance by facts indicating that the water diverted was also polluted. *City of Valparaiso v. Kyes*, 30 Ind. App. 447, 66 N.E. 175 (1902); *Baltimore & O.S.R.R. v. Quillen*, 34 Ind. App. 330, 72 N.E. 661 (1904).

111. See *Griggs v. County of Allegheny*, 369 U.S. 84 (1962); *United States v. Causby*, 328 U.S. 256 (1946).

112. See Nace, *Water Management, Agriculture and Groundwater Supplies*; Wadleigh, *Relations Between Soil Conservation Practices and Availability of Water*, and Edminster, *Agricultural Drainage: A Continuing Challenge*, in *WATER AND AGRICULTURE* (Hockensmith ed. 1960); INDIANA DEP'T OF PUBLIC INSTRUCTION, *CONSERVATION OF WATER* 30 (1946); JOHNSTONE & CROSS, *ELEMENTS OF APPLIED HYDROLOGY* ch. 5 (1949).

113. *Conner v. Woodfill*, 126 Ind. 85, 25 N.E. 876 (1890).

114. *Id.* at 86, 25 N.E. at 876.

1. The railroad company "had the right to lower the grade of its tracks, and to dig ditches to convey water off its right of way, but not to turn it upon the lands of plaintiff."¹¹⁵

2. "That the acts of constructing the ditches were lawful and were performed with due care would make no difference."¹¹⁶

3. "[I]f the owner of lands collects surface water into a body, he is bound to provide a means of discharge by drainage, and . . . if he fails to do so, the owner of the lower lands has a cause of action."¹¹⁷

4. Use which does not collect surface water into a body is probably reasonable.¹¹⁸

So much for the reasonable use of land. The *sic utere* rule does not admit of valuable generalization;¹¹⁹ it is useful only to distinguish between the lower property owner who may invoke the common enemy rule and the upper property owner who may not. Once on the higher owner's land, surface waters become his property regardless of whether they flow there or fall from the skies. He must either "keep them within his boundaries or permit them to flow off without artificial interference, unless within the limits of his land, he can turn them into a natural watercourse."¹²⁰ When the property owner is dealing with water not yet on his land and is warding it off at his boundaries, he occupies the position of a lower property owner.

This leaves unresolved the problem of direct, purposeful diversion of water onto a lower property owner. As to that kind of conduct the *Restatement of Torts* summarizes the rule apparently followed in Indiana by classifying as an actionable wrong any "use made [of property] for

115. *Baltimore & O.S.R.R. v. Quillen*, 34 Ind. App. 330, 336, 72 N.E. 661, 663 (1904).

116. *Ibid.*

117. 24 AM. & ENG. ENCY. LAW 930-31, in *Baltimore & O.S.R.R. v. Quillen*, 34 Ind. App. 330, 334, 72 N.E. 661, 663 (1904).

118. RESTATEMENT, TORTS § 864 (1939), which classifies as "ordinarily reasonable" a land owner's "use of the surface waters on his land which consumes them or alters their flow so as to interfere with another's use of them on other land." Professor Casner's view is that "common law" states only bar accumulations of surface water "in unusual quantities" and the discharge of them "with force." 6A AMERICAN LAW OF PROPERTY 189 (1954).

119. BLACK, LAW DICTIONARY 1551 (4th ed. 1951), defines the maxim, and then cites and quotes several authorities which characterize it as question-begging and useless. That, in the abstract, is probably true. But the fact is that the Indiana cases which invoke it have, by and large, been decided on more realistic criteria than those which have not. If realistic conservation of water can be fostered and protected by its use in the jurisprudence of this state, only a slavish devotion to legal symmetry is going to worry about the latin words used to do it.

120. *Cairo & V.R. Co. v. Houry*, 77 Ind. 364, 365 (1881).

the primary purpose of harming the other.”¹²¹ This means, therefore, that any “use . . . which consumes [surface waters] or alters their flow so as to interfere with another’s use of them on other land is ordinarily reasonable.”¹²² If the use is not a “reasonable use of his own property”¹²³—the *sic utere* principle recognized in Indiana—the diversion will be considered as “made for the primary purpose of harming the other.” Consequently it is not accurate to say that overt intention, or malice if you prefer, is a necessary ingredient; it has no place in the Indiana cases and may or may not have a place with the *Restatement* drafters.¹²⁴

One of the earliest cases, *Templeton v. Voshloe*,¹²⁵ illustrates this point. Templeton’s land was below Voshloe’s, a natural ridge separating their tracts. Voshloe cut two-and-a-half-foot ditches through the ridge, and these ditches channelled Voshloe’s surface water onto Templeton’s land. Templeton prevailed, the court stating that an upper property owner may not “collect the water of several channels and discharge it on the lower field.”¹²⁶ A “reasonable use” rule was applied:

The right of the owner of the upper field to make drains on his own land is restricted to such as are required by good husbandry and the proper improvement of the surface of the ground, and as may be discharged into natural channels, without palpable and unnecessary injury on the lower field.¹²⁷

This generalization suggests, as the *Conner*¹²⁸ case did not, that the water diverted need not in every instance be diverted into a natural channel. Other cases indicate that *Templeton* is in fact more reliable than *Conner* as a basis for prediction.¹²⁹

In the absence of prescriptive right, diversion into an artificial channel which invades the lower property will be considered within the rule

121. RESTATEMENT, TORTS § 864 (1939).

122. *Ibid.*

123. *Ibid.*

124. Intention is logically no more a part of the rule than due care is. Following, again, Dean Prosser’s classification: Once the collection and discharge elements have been found, the rule gives “complete protection at the expense of the [upper property owner].” It is, in other words, an “absolute nuisance.” PROSSER, TORTS 399-400 (2d ed. 1955).

125. 72 Ind. 135 (1880).

126. *Id.* at 136.

127. *Id.* at 137.

128. *Conner v. Woodfill*, 126 Ind. 85, 25 N.E. 876 (1890).

129. *Newton v. Lyons*, 120 Ind. App. 465, 90 N.E.2d 917 (1950); *Hunter v. Cleveland, C.D. & St. L.Ry.*, 93 Ind. App. 507, 176 N.E. 710 (1931); see *Schwartz v. Nie*, 29 Ind. App. 329, 64 N.E. 619 (1902).

governing purposeful diversion; it will be a nuisance.¹³⁰ These cases typically fall into two categories: the upper owner either insists that he has a prescriptive right to the drainage channel, or he insists that it is a natural watercourse. Where the court finds against him on both contentions, as was the case in *Reed v. Cheney*,¹³¹ it is almost a foregone conclusion that he will be found to have committed an actionable wrong¹³² which, though in that case termed a nuisance, is generally treated as trespass.¹³³

The actionable wrong, or "purposeful" diversion rule seems to have two constituent parts: The water must be gathered on the land of the upper owner, and it must be diverted in a single, sizeable concentration onto the lower land.¹³⁴ Here, as in the flood water cases, resourceful counsel may successfully raise problems of causation. Logically, a contention that the defendant's contribution to the water that came from the defendant's land was insufficient to cause the harm should fail if the harm would not have resulted had the defendant's water not been channelled onto the plaintiff. But in the peculiar situation where the water comes onto the plaintiff's land from two separable sources, and the defendant's improper diversion is related to only one of them, the defendant should prevail if the water he diverted was insufficient to cause the harm. *Rarey v. Lee*¹³⁵ was in the latter category, and much like the *Templeton*¹³⁶ case, in that the defendant had cut drainage channels in a natural ridge. The court in *Templeton* had no difficulty resolving that that was the sort of conduct productive of liability. But the jury in *Rarey* returned a special verdict, finding that "some" of the damaging water came through the trenches, and "some" came from the natural flow onto the plaintiff's land. The appellate court said this meant "there was another proximate cause capable of producing the whole injury,"¹³⁷ and re-

130. See notes 99 & 124 *supra*. There is no valid inquiry as to intention or negligence in a surface water diversion case, which is a case of "absolute nuisance." PROSSER, TORTS 399-400 (2d ed. 1955).

131. 111 Ind. 387, 12 N.E. 717 (1887).

132. *Id.* at 389, 12 N.E. at 718; see *Mitchell v. Bain*, 142 Ind. 604, 42 N.E. 230 (1895).

133. *Conner v. Woodfill*, 126 Ind. 85, 25 N.E. 876 (1890); see *Central Indiana Coal Co. v. Goodman*, 111 Ind. App. 480, 39 N.E.2d 484 (1941), which involved both water diversion and pollution, and in which the court spoke in terms of absolute liability. The latter case is an application of the rule of *Rylands v. Fletcher*, which is reported in its various stages of development at 159 Eng. Rep. 737 (1865), 1 Ex. 265 (1866), and 3 H.L. 330 (1868), and is discussed in PROSSER, TORTS 329 *et seq.* (2d ed. 1955). The rule has been narrowly confined to what is sometimes called "ultrahazardous activity" and is not particularly relevant to a discussion of surface water.

134. *Ibid.*; see *Mitchell v. Bain*, 142 Ind. 604, 42 N.E. 230 (1895).

135. 16 Ind. App. 121, 44 N.E. 318 (1896).

136. *Templeton v. Voshloe*, 72 Ind. 135 (1880).

137. *Rarey v. Lee*, 16 Ind. App. 121, 125, 44 N.E. 318, 319 (1896).

versed the trial judge who had entered judgment for the plaintiff on the special verdict.

2. Exceptions to the *sic utere* rule. Ordinarily the upper property owner who channels surface water onto his neighbor's land creates a nuisance. There are two general exceptions to this ordinary result: (1) the upper property owner is not liable if he diverts the surface water into a natural watercourse;¹³⁸ (2) nor is he liable if he has a prescriptive claim or an express or implied easement over the course the surface water follows on his neighbor's land.

The prescriptive easement contention was raised in the leading case of *Trout v. Woodward*.¹³⁹ The establishment of an easement is brought about by the same sort of adverse use that establishes any other kind of prescriptive easement—use, as the *Trout* court put it, “whenever he [a person] sees proper, without asking permission, and [when] no objection is made thereto.”¹⁴⁰ The statement was dictum as the case turned on the court's finding a natural watercourse; but the presence of the easement concept in the same opinion is nevertheless valuable in analysis. The watercourse rules predicate a theory of public interest in streams as a basis for public control; the easement rules follow a similar theory of interest in the dominant property owner. The consequences of up-stream drainage to the servient owner are identical.

Trout expanded a rule which was the basis for decision in an earlier case.¹⁴¹ In that case there had been a common ownership of both dominant and servient tracts, and the earlier owner had set up a scheme of drainage which remained after the land was divided. Because the scheme existed in the common ancestry of both tracts the court held the upper owner had an implied easement.

In reaffirming *Trout*, the court held in *Siegmund v. Tyner*¹⁴² that an upper owner had a prescriptive easement to maintain tile drains across the lower property owner's land, even though these drains carried so much water to a natural watercourse on the lower tract that it overflowed and damaged the lower owner. The court used adverse possession language—“open, notorious and adverse possession and use of the drains complained of for thirty years, with the right to flow water through the same across the appellant's land during all that time.”¹⁴³

138. See note 120 *supra* and accompanying text.

139. 64 Ind. App. 333, 114 N.E. 467 (1916).

140. *Id.* at 335, 114 N.E. at 468.

141. *Steinke v. Bentley*, 6 Ind. App. 663, 34 N.E. 97 (1892).

142. 52 Ind. App. 581, 101 N.E. 20 (1912).

143. *Id.* at 585, 101 N.E. at 21.

Continuing its development of the prescriptive easement exception to the *sic utere* rule, the court in *Pyott v. State*,¹⁴⁴ recognized an easement in an upper owner to drain its railroad embankment. The lower owner had dammed a ditch on his own land, thereby draining the railroad's land. The drainage system had been "continuously, exclusively and uninterruptedly" maintained for 31 years by the railroad under a claim of right. An easement to maintain a ditch in the same place and with the same capacity as the ditch created at the beginning of the 31-year period was found.

The facts of the *Siegmund* case were partially duplicated in *Walley v. Walley*.¹⁴⁵ There the stream had been altered by the lower property owner, and the court indicated that the alteration may have been the cause of his trouble. Nonetheless, an easement to maintain a tile drainage system across his own land and into the natural watercourse was found in favor of the upper owner. In *Walley*, unlike *Siegmund*, the tile drains did not cross the lower tract; they were entirely on the upper owner's land. Although the court talked in terms of prescriptive right, the opinion also disposed of the case under the general rule that an upper owner may drain his surface water into a natural watercourse, as part of the rights he has as a riparian owner. Though it may be dictum, the court laid down some fairly useful guidelines on the creation and maintenance of the prescriptive easement:

Our courts have repeatedly held that where one has enjoyed an easement over the lands of another with his knowledge, and without any objection and without any agreement between the parties with reference thereto, and such adverse enjoyment has continued for more than twenty years, it will ripen into a title which cannot, thereafter be successfully disputed. . . . Thus, though one party has proved a paper title, the other party need only prove twenty years' open, continuous, adverse user, in order to raise the presumption that his user began under a claim of right.¹⁴⁶

The easement arises when the first invasion takes place.¹⁴⁷

When water is cast on the lands of another, or any act done illegally, the continuance of which may ripen into an easement,

144. 170 Ind. 118, 83 N.E. 737 (1908).

145. 56 Ind. App. 171, 104 N.E. 318 (1914).

146. *Id.* at 177, 104 N.E. at 320.

147. Note here the "trespass" language of the *Conner* case instead of the usual nuisance language. *Conner v. Woodfill*, 126 Ind. 85, 25 N.E. 876 (1890).

there is at once a right of action for the trespass, and damages will be awarded therefor, even though so slight as to be only nominal, and the period of adverse user begins from the first trespass, not from the time when the trespass begins to cause substantial damage.¹⁴⁸

A 1906 railroad condemnation case contains an interesting and apparently unusual variant on the prescriptive easement for drainage rule.¹⁴⁹ There the railroad was taking a part of the property owner's land by eminent domain. A drainage ditch which benefitted land the railroad did not want was located on the part being taken. Since the railroad had not taken possession of the condemned tract the only question in the suit concerned damages for the drainage ditch. The court held that the ditch was not a natural watercourse; it said nothing about prescriptive rights. Though the railroad had not destroyed the ditch, the court acknowledged such a right in the railroad since the ditch was not a natural watercourse and the property owner had no prescriptive right to it. Therefore, the court's condemnation award properly considered "the obstruction of the ditch, and the consequences to the appellees' farm, as proper elements of damage."¹⁵⁰ The case fits more neatly into the line of precedent on prescriptive drainage rights, but the court failed to discuss implied easements arising out of common ownership, as it did in *Steinke v. Bentley*.¹⁵¹

The cases wherein no prescriptive right was found illustrate other aspects of this exception to the general no-drainage rule. In 1899¹⁵² the court said a railroad had no duty to respect an existing drainage ditch when building a grade for its tracks; it was not liable for damming the ditch in the absence of watercourse or prescriptive rights to the ditch.¹⁵³ A 1904 railroad embankment case¹⁵⁴ involved a culvert under a right-of-way which the railroad destroyed while constructing improvements. The culvert had been cooperatively maintained by contiguous property owners for 30 years. Precedent, of course, did not require that the railroad respect the culvert in the absence of a prescriptive right, and none was

148. *Walley v. Wiley*, 56 Ind. App. 176, 177, 104 N.E. 318, 320 (1913).

149. *New Jersey, I. & I.R.R. v. Tutt*, 168 Ind. 205, 80 N.E. 420 (1906); see also *Cleveland, C.C. & St. L.Ry. v. Smith*, 177 Ind. 524, 97 N.E. 164 (1911).

150. *New Jersey, I. & I.R.R. v. Tutt*, *supra* note 149, at 212, 80 N.E. at 424.

151. 6 Ind. App. 663, 34 N.E. 97 (1892).

152. *Cleveland, C. C. & St. L.Ry. v. Huddleston*, 21 Ind. App. 621, 52 N.E. 1008 (1899).

153. This was an interesting variant on *New Jersey, I. & I.R.R. v. Tutt*, where the railroad bought the land in fee. The two cases suggest one reason why it is less expensive for railroads to buy rights-of-way rather than roads in fee. 168 Ind. 205, 80 N.E. 420 (1906); see also *Cleveland, C.C. & St. L.Ry.*, *supra* note 152.

154. *Clay v. Pittsburgh, C.C. & St. L.Ry.*, 164 Ind. 439, 73 N.E. 904 (1904).

shown in the record to the court's satisfaction because the use was judged permissive.¹⁵⁵ The case is an excellent example of the absurd results to which hard-nosed common law individualism carries judges who are dealing with what are necessarily community problems. It is the sort of reasoning that should give way as the judicial regard for water grows, and not only as the judicial regard for railroads declines.

*Gaskill v. Barnett*¹⁵⁶ involved a drainage channel which relieved the upper owner's pond in time of heavy rainfall. The court's principal line of reasoning excluded the possibility that the channel was a natural watercourse, but the plaintiff also raised a prescriptive rights contention. The court opined, in the first place, that the use of the ditch was permissive. But water poured onto the lower land from two sources—the ditch, and ruts worn in the upper owner's private road. The court reasoned, however, that the easement would not extend to the offending ruts, even if prescriptive rights in the ditch had been established. This suggests a limit on the easement which is altogether logical, but it is even more difficult to understand why the court did not find the private road a reasonable use of the upper land—or even discuss the question.

It remains to point out the obvious: the upper owner would have the same rights he gains by prescription if he obtained a ditch easement by grant. That point having been made, the position of upper landowners is capable of this generalization:

1. An upper landowner may use his land within the limits of the *sic utere* principle without fear of liability for surface water incidentally diverted onto his neighbor's land.

2. An upper owner may not gather surface water into areas of substantial concentration and discharge it in concentrated amounts onto his neighbor's land, except: (a) He may do so if the channel he uses is a natural watercourse; and (b) He may do so if the channel he uses is one in which he has a prescriptive right, or an express or implied easement.

3. Lower property owners—the common enemy rule. If the so-called common enemy rule on surface water is applicable at all in Indiana,¹⁵⁷ it is applicable only to the property owner toward whom surface water is being channelled or otherwise directed. Even then it has its limitations. The generalization has repeatedly been made that Indiana law will permit a property owner to do whatever he can on his own land to prevent surface water from entering via neighboring tracts,

155. "In order to create an easement in land the use thereof must appear to have been adverse, under a claim of right, exclusive, continuous, uninterrupted." *Id.* at 445, 73 N.E. at 906.

156. 52 Ind. App. 654, 101 N.E. 40 (1912).

157. See note 32 *supra*.

provided his neighbor has no easement to drain onto his land.¹⁵⁸ That is probably not entirely accurate. The cases which call it into question are irreconcilable, and those which support it principally involve railroad embankments.

In discussing the authorities it is useful to recognize that a lower property owner is interested in keeping channelled surface water off his land and in building obstacles, if he can, to also repel unchannelled surface water. In dealing with these interests the courts have more often than not permitted him to dam channelled surface water at his boundary line and have frowned on extensive attempts to generally confine other, unchannelled surface water on the higher tract.

The common enemy rule may or may not allow "landowners [to] protect their property by diverting the water, regardless of its effect on the property of others."¹⁵⁹ If that is the rule in other common enemy states, however, it cannot be safely regarded as the rule in Indiana. Citing an Indiana case, one authority says: "The common-enemy doctrine, in its unmodified form, has often been held to authorize the lower landowner to . . . cast back surface waters without liability."¹⁶⁰ More accurately, the Indiana courts have limited the common law theory as it is applied to the lower owner, but the limitations "are nebulous in character."¹⁶¹

When surface water is intermittently moving onto an Indiana property owner's land "through swales, arroyos and dry gulches in quantities sufficient to interfere with the use of the land,"¹⁶² the property owner is reasonably safe in damming it. The Supreme Court so held in a very early case, even though construction of the dam caused water to back up in the swale and flood the plaintiff.¹⁶³ One of the leading Indiana opinions, *Ramsey v. Ketcham*,¹⁶⁴ squarely agrees. There the lower owner not only dammed the ditch, but his fence row was constructed above field level so that his whole boundary line operated as a dike to confine the water on the upper owner's land. In an oft-cited generalization the court said:

Every landowner has the right, provided he does not interfere with a natural or prescriptive watercourse, to construct or

158. 6A AMERICAN LAW OF PROPERTY 188-89 (1954); 29 INDIANA LAW ENCYCLOPEDIA *Waters* §§ 52-53 (1960); Annot., 59 A.L.R.2d 421 (1958).

159. Note, 5 NOTRE DAME LAW. 282 (1930).

160. Annot., *supra* note 165, citing *Watts v. Evansville, M.C. & N.Ry.*, 191 Ind. 27, 129 N.E. 315 (1921).

161. *Dobbins, Surface Water Drainage*, 36 NOTRE DAME LAW. 518, 524 (1961).

162. 6A AMERICAN LAW OF PROPERTY 186 (1954).

163. *Schlichter v. Phillipy*, 67 Ind. 201 (1879).

164. 73 Ind. App. 200, 127 N.E. 204 (1919).

build on his own land levees and embankments or other barriers to protect his property from surface water.¹⁶⁵

Of course, as the ditch becomes improved and a public interest is taken in it, there is a greater likelihood that courts will find a natural watercourse, a "public ditch" or a channel in which some interested party has a prescriptive, implied or granted easement.¹⁶⁶ In *Gwinn v. Myers*,¹⁶⁷ for instance, Gwinn dammed a ditch which drained Myers' land after the lower court had ordered the ditch tiled as a public drain for surface water. The Supreme Court gave no unique status to the "public ditch," but found that it was a natural watercourse. Obviously it was anything but a natural watercourse; the case illustrates a need, perhaps, to recognize a third kind of privileged surface water channel—the cooperatively created artificial drain.

Certainly, if a lower owner may dam an entire ditch, he may dam it in part to provide adequate protection for his own land. In fact, he may dam around the edges of a natural watercourse so long as he does not interfere with the low- and high-water levels of the watercourse to his upper neighbor's damage.¹⁶⁸

It is when the lower property owner becomes more ambitious that the precedents give him cause for worry. In one of the earliest cases in this area¹⁶⁹ the court distinguished, but did not disapprove, an Illinois holding that a lower property owner harmed his higher neighbor when he built half a mile of dike along their common property line. The Indiana court distinguished the facts before it by noting that the "complaint was for obstructing a depression in the ground, or a channel,"¹⁷⁰ and not for building a dike. The damming was all right, but even in 1878 the implication was plain—the lower property owner may go too far. And he went too far 12 years later in *Weddell v. Hapner*.¹⁷¹ Although Weddell was situated downhill from Hapner, he managed to build a system of ditches which kept the surface water on Hapner's land. The court thought it should modify its earlier common enemy holding in the *Tay-*

165. *Id.* at 205, 127 N.E. at 206; see *Chesapeake & O.R.R. v. Powell*, 113 Ind. App. 1, 44 N.E.2d 514 (1942), which involved a "public ditch"; *Capes v. Barger*, 123 Ind. App. 212, 109 N.E.2d 725 (1952), which followed the *Ramsey* holding.

166. *Gwinn v. Myers*, 23 Ind. 560, 129 N.E.2d 225 (1955); *Chesapeake & O.R.R. v. Powell*, 113 Ind. App. 1, 44 N.E.2d 514 (1942); 5 POWELL, REAL PROPERTY 434 (1962).

167. 234 Ind. 560, 129 N.E.2d 225 (1955).

168. *Thompson v. Dyar*, 126 Ind. App. 70, 130 N.E.2d 52 (1955).

169. *Taylor v. Fickas*, 64 Ind. 168 (1878), distinguishing *Gillham v. Madison R.R.*, 49 Ill. 484 (1869).

170. *Ibid.*

171. 124 Ind. 315, 24 N.E. 368 (1890).

lor¹⁷² case, but the opinion talks solely in terms of an upper owner channelling water onto a lower owner and never faces up to the fact that the situation was reversed.

In the first of a series of ill-considered cases, the court in *Jacks v. Lollis*¹⁷³ heard a lower property owner who built a levee at one point on his property line and was instrumental in getting a railroad embankment built at another point. The upper property owner prevailed, but the Supreme Court's opinion is a sketchy memorandum that fails to explain what happened to the authority of the *Taylor* case. In *Hart v. Sigman*¹⁷⁴ the Appellate Court ignored the *Jacks* case and returned to the logical rigors of the common enemy rule. The land tracts there were separated by a public road across which surface water flooded onto the lower owner's land. The lower owner gratuitously repaired the road and incidentally raised the grade to a point which prevented flooding. The opinion proceeds in three different directions, any one of which may be sufficient to explain its holding: (1) a right to repair the road, (2) a right to protect one's land from oncoming surface water, and (3) a sort of estoppel in the upper owner to complain, since the surface water involved originated on his land.

The worst in this series of cases—the authority that stands most in danger of giving pause to lower property owners, and the opinion most in need of explanation by the Appellate Court—was *Newton v. Lyons*, decided in 1950.¹⁷⁵ Lyons' land was above Newton's. Water from the upper tract passed through a 24-inch culvert onto Newton's land. Newton attached a 12-inch pipe to this culvert, which cut down the flow onto his land but caused flooding on the up-hill (Lyons') side of the road. The court began its opinion by noting that *Weis v. City of Madison*¹⁷⁶ had established certain limitations on Indiana's common enemy rule. (*Weis* involved the reverse situation.) It is the rule in this state, the opinion said, that a property owner may not collect surface water and channel it onto other property owners. And then, by some miracle of logic over gravity, the court reasoned that, in backing up the water (Lyons' water) onto Lyons' land, Newton came within the rule of the *Weis* case:

[W]e do not have a situation where a landowner is engaged in the due exercise of dominion over his own soil in repelling sur-

172. See note 169 *supra* and accompanying text.

173. 10 Ind. App. 700, 37 N.E. 728 (1894); but see *Hart v. Sigman*, 32 Ind. App. 227, 69 N.E. 262 (1903).

174. 32 Ind. App. 227, 69 N.E. 262 (1903).

175. *Newton v. Lyons*, 120 Ind. App. 465, 90 N.E.2d 917 (1950).

176. 75 Ind. 241 (1881).

face water, but a situation where by his acts surface water is collected in an artificial channel and consequently thrown *back upon the higher land owner*.¹⁷⁷

Unless the Indiana Appellate Court can make water run up-hill the only water being "thrown back" was Lyons' surface water. The *Weis* rule had no application to the facts before the court; the *Taylor*¹⁷⁸ and *Ramsey*¹⁷⁹ opinions had every application. Thus the case is an unfortunate departure from a logical distinction, generally preserved in the Indiana cases, between an upper property owner's dangerous practice of channelling surface water which originated on his land onto lower property owners, and a lower property owner's use of the common enemy rule in protecting his land from water that originated elsewhere. In the first situation the offender is, after all, responsible for the surface water; in the second, the complaining party is responsible. Moreover, the recognized exceptions to the *sic utere* principle as it is applied to upper land-owners cannot benefit lower property owners. At least until water does run up-hill, a prescriptive easement for drainage or a natural watercourse is of no use to a lower property owner who wants to keep his upper neighbor's surface water off his land.

4. Lower property owners—railroad embankments and bridges. Cases involving railroad embankments as obstacles to surface water drainage deserve separate consideration, if only because there are so many of them. Railroads used to obtain more benefit from the common enemy rule than other property owners—at least this was true in the 40 years before World War I when railroads generally enjoyed judicial favor in this state.¹⁸⁰ In two cases decided in 1881, for instance, the Supreme Court held that a railroad improving its right-of-way had no duty to build culverts and maintain the *status quo* in water drainage.¹⁸¹ The same holding controlled a similar case five years later, the court cautioning, however, that not even a railroad company is free to dam up natural watercourses.¹⁸² If the railroad wanted to construct dikes on its property

177. *Newton v. Lyons*, 120 Ind. App. 465, 472, 90 N.E.2d 917, 919 (1950) (Emphasis added.)

178. *Taylor v. Fickas*, 64 Ind. 167 (1878).

179. *Ramsey v. Ketcham*, 173 Ind. App. 200, 127 N.E. 204 (1919).

180. Crossing accident cases are an excellent example of this. Compare *Mann v. Belt R.R. & Stockyard Co.*, 128 Ind. 138, 26 N.E. 819 (1890), and *Cadwallader v. Louisville, N.A. & C.Ry.*, 128 Ind. 518, 27 N.E. 161 (1890), with what the federal court thought modern Indiana crossing law was in *Moss v. Pennsylvania R.R.*, 146 F.2d 673 (7th Cir. 1945).

181. *Cairo & V.R. Co. v. Stevens*, 73 Ind. 278 (1881); *Cairo & V.R. Co. v. Houry*, 77 Ind. 364 (1881).

182. *Hill v. Cincinnati, W. & M.Ry.*, 109 Ind. 511, 10 N.E. 410 (1886); see *Cleveland, C.C. & St. L.Ry. v. Woodbury Glass Co.*, 80 Ind. App. 298, 120 N.E. 426 (1923);

line it was allowed to do so, even though similar cases involving the construction of dikes by farmers show the greatest amount of judicial skepticism toward such conduct.¹⁸³ A railroad's ability to build or improve its embankments without providing for existing drainage schemes was intact, even if the railroad's interest in the right-of-way was by easement rather than fee ownership,¹⁸⁴ and regardless of the fact that the railroad had, for a period less than that required for a prescriptive easement, maintained a culvert for the benefit of upper owners.¹⁸⁵

The early dicta that railroads had to respect natural watercourses ripened into a holding in 1897,¹⁸⁶ when the facts involved the construction of a railroad bridge which narrowed the channel of a river. This exception survived as dictum in later opinions which held that ditches across or under railroad rights-of-way were not prescriptive and carried surface water, meaning that upper property owners had no enforceable interests in them.¹⁸⁷

It is also possible that property owners during this era had more difficulty in proving a prescriptive easement against a railroad than they would have had against a farmer-defendant or farmer-plaintiff. That is suggested in at least one case where, though a use had been open and notorious for more than 30 years, the court determined it was permissive.¹⁸⁸ In the *Tutt* case,¹⁸⁹ however, a property owner was awarded compensation from a railroad for the destruction of a non-prescriptive surface water channel. That decision and a similar one five years later¹⁹⁰ seem to be the only instances granting compensation for an interest which would not have been recognized if the case had not involved condemnation. And beginning at least in 1912, the courts emphasized that the right of a railroad with respect to surface water diversion is no

Dunn v. Chicago, I. R. L. Ry., 63 Ind. App. 553, 114 N.E. 888 (1916); New York, C. & St. L.R.R. v. Hamlet Hay Co., 149 Ind. 344, 47 N.E. 1060 (1897).

183. Jean v. Pennsylvania Co., 9 Ind. App. 56, 36 N.E. 159 (1893).

184. Compare Newton v. Lyons, 120 Ind. App. 465, 90 N.E.2d 917 (1950); Jacks v. Lollis, 10 Ind. App. 700, 37 N.E. 728 (1894); Wedell v. Hapner, 124 Ind. 315, 24 N.E. 368 (1890).

185. Lake Erie & W.R.R. v. Hilfiker, 12 Ind. App. 280, 40 N.E. 80 (1894).

186. New York, C. & St. L.R.R. v. Hamlet Hay Co., 149 Ind. 344, 47 N.E. 1060 (1897).

187. Barrett v. Cleveland, C.C. & St. L.Ry., 48 Ind. App. 668, 96 N.E. 490 (1911); Cleveland, C.C. & St. L.Ry. v. Huddleston, 21 Ind. App. 621, 52 N.E. 1008 (1899). The exception was the basis of a holding in a 1917 leading decision on the status of flood water. Evansville, M.C. & N.Ry. v. Scott, 67 Ind. App. 121, 114 N.E. 649 (1917).

188. Clay v. Pittsburgh, C.C. & St. L.Ry., 164 Ind. 439, 73 N.E. 904 (1904).

189. New Jersey, I. & I.R.R. v. Tutt, 168 Ind. 205, 80 N.E. 420 (1906).

190. Cleveland, C.C. & St. L.Ry. v. Smith, 177 Ind. 524, 97 N.E. 164 (1911).

different than the right of any other property owner.¹⁹¹

As was true with regard to municipal corporations, there is some small amount of authority which puts a duty of reasonable care on railroads in constructing embankments and bridges.¹⁹² But "reasonable care" authority is suspect in this area,¹⁹³ and the principal railroad case using "reasonable care" language can be explained adequately on a theory of channel obstruction of a natural watercourse.¹⁹⁴ A judge finding a natural watercourse may in fact be mitigating the rigors of the common enemy rule—something he can accomplish only with embarrassment when he deals with the facts before him in terms of surface water. This has had its application in Indiana railroad embankment authority. The leading case in point¹⁹⁵ involved a stone aqueduct under a railroad embankment and some improvements in the channel which used it—improvements which were adjudged not to affect its character as a natural watercourse. All of the water flowing into the ditch was surface water, and the ditch apparently flooded with regularity. The railroad plugged the aqueduct and then contended that flooding was an "act of God." The court held for the flooded farmer. It is interesting to read the strong language the court felt justified in using, once it had found a natural watercourse:

[W]hen appellant constructed its additional embankment across the valley in question, and over the natural watercourse which

191. A case that year favored the railroad, but on principles which had been consistently applied in non-railroad cases. *Pittsburgh, C.C. & St. L.Ry. v. Atkinson*, 51 Ind. App. 315, 97 N.E. 353 (1912). A subsequent case gave thorough consideration to a farmer whose land adjoined the railroad right-of-way. The farmer contended he had a prescriptive right in drainage under the right-of-way. Ultimately the court held the drainage system was a natural watercourse, rejecting the railroad's claim that it lost its natural character when the farmer tiled his ditch. *Vandalia R.R. v. Yeager*, 60 Ind. App. 118, 110 N.E. 230 (1915). See *Dunn v. Chicago, I. & L.Ry.*, 63 Ind. App. 553, 114 N.E. 888 (1916); see also 5 POWELL, *REAL PROPERTY* 433-34 (1962), where it is proffered that a decision finding a natural watercourse is a common judicial means to mitigate the rigors of the common enemy rule.

192. *Watts v. Evansville, M.C. & N.Ry.*, 191 Ind. 27, 129 N.E. 315 (1921); see notes 104-07 *supra* and accompanying text.

193. See notes 102 & 124 *supra* and accompanying text.

194. The opinion indicates that this result was possible:

The direct question here presented is: Does the rule apply to waters flowing over the lowlands adjacent to a natural stream or watercourse as a result of high water or freshets, causing the stream to overflow its natural banks, which overflow water follows the course of the stream to its outlet.

Watts v. Evansville, M.C. & N.Ry., 191 Ind. 27, 45, 129 N.E. 315, 321 (1921). If the overflow water runs parallel to the main course of the stream, other cases indicate it would not be held to be surface water. See notes 96, 97 & 100 *supra* and accompanying text.

195. *Cleveland, C.C. & St. L.Ry. v. Woodbury Glass Co.*, 80 Ind. App. 298, 120 N.E. 426 (1923).

drained the same, it was its duty to use due care not to obstruct the flow of the water thereof. In exercising such care, it was its duty to consider the size of the stream, its history, the area and topography of the country drained thereby, the probable rainfall thereon, the existence of the public tile drain, its capacity and sufficiency to carry the water of the stream, not only at ordinary times, but on occasions of such freshets and floods as might reasonably be anticipated, and then to construct its embankment in such manner as not to obstruct the watercourse.¹⁹⁶

5. Surface water in Indiana: the trend. However ineptly, the modifications of the common enemy rule that the scholarly writers discuss have found their way into the Indiana cases involving lower property owners who want to protect their land. When the modification is compared with the application of the *sic utere* rule to upper property owners, something akin to what Professor Powell describes is clearly taking place in this state:

The trend, throughout recent decades, in stream law, as well as with regard to subterranean and surface waters, has been toward a set of rules which will assure the best social utilization of these gifts of nature consistent with a reasonable protection of private land ownership.¹⁹⁷

The demands of a growing Indiana population for a more intelligent use of surface water resources require judicial recognition in surface water cases. For that reason, if not because of judicial sophistication, the trend should be welcome in this state.

III. SURFACE WATER AND INDIANA'S WATER CONSUMPTION

Indiana's water requirements were outlined in 1956 by the Indiana Water Resources Study Committee;¹⁹⁸ projected demand in 1980, when the state's population is predicted to reach 6 million, was estimated in 1960 by the Indiana Flood Control and Water Resources Commission.¹⁹⁹ A comparison of these two tabulations illustrates some of the reasons for official concern about conservation of the state's water resources:²⁰⁰

196. *Id.* at 314, 120 N.E. at 432.

197. 5 POWELL, *op. cit. supra* note 191, at 415-16.

198. INDIANA WATER RESOURCES STUDY COMM., INDIANA WATER RESOURCES 1 (1956).

199. INDIANA FLOOD CONTROL & WATER RESOURCES COMM'N, PROGRESS REPORT—1960 3-4.

200. Figures are stated in units of one million gallons per day. It should be noted that the use of water in the production of electrical energy is what the hydrologists call a "non-consumptive use," which is another way of saying that about 99 per cent of the

Indiana's Water Consumption

<i>User</i>	<i>1956</i>	<i>1980</i>
Municipal	335	710
Rural (other than irrigation)	(no figure)	199
Industry	1,747	5,125
Electrical power	4,303	13,000

In the areas of current water use demand will probably triple within the next 20 years, even without considering the effect of efforts to make the state's water supply conform to the seasons of maximum demand. One of the most persistent of these efforts is irrigation; in the future it will be a principal use of ground and surface water. In 1956, for example, there was a demand for 3,920 million gallons a day in the peak season.²⁰¹ Moreover, the number of irrigated acres is constantly expanding. From 1954-1955, for instance, the number of acres under irrigation increased markedly from 24,000 to 35,000.²⁰² As the months of heaviest rainfall in most areas of the state are outside the growing season²⁰³ and the months of lightest rainfall in many areas are within the growing season,²⁰⁴ irrigation is attractive, both because it will increase agricultural production and because it will reduce some of the hazards nature imposes on farmers.²⁰⁵ Irrigation water will come from surface water storage areas—lakes, streams and reservoirs—in some parts of the state, and from underground natural water storage, the potential of which is plentiful, in the northern two-thirds of the state.²⁰⁶

Both of these sources of irrigation water can be substantially augmented by a more intelligent conservation of what the law calls surface water; modern techniques of contour farming, terracing and ponding put surface water back into the natural underground storage.²⁰⁷ This is especially significant in the present context because the water which is driven

water used is returned to the source in an unpolluted state. *Ibid.*; INDIANA WATER RESOURCES STUDY COMM., *supra* note 198; COOPERATIVE EXTENSION SERVICE, PURDUE UNIV., WATER MANAGEMENT THROUGH WATERSHEDS (1962), and Kellum, *Rains Came to State—But Need for Water Conservation Remains*, The Indianapolis Star, July 14, 1963, § 2, p. 2.

201. INDIANA FLOOD CONTROL & WATER RESOURCES COMM'N, *supra* note 199, at 4.

202. INDIANA WATER RESOURCES STUDY COMM., *supra* note 198, at 1.

203. See note 27 *supra* for statistics on the rainfall during the growing season. The rainfall in southern Indiana is heaviest in March; winter and spring are generally considered the worst flood seasons in the state. See WEATHER BUREAU, U.S. DEP'T COMMERCE, CLIMATOLOGY OF THE UNITED STATES, No. 60-12, CLIMATES OF THE STATES, INDIANA 2 (1959).

204. *Ibid.*

205. GROUND WATER REGION REP. 51.

206. *Id.* at 3, 51.

207. *Id.* at 3.

into the ground by these devices is the water which, but for the devices, would generate lawsuits between property owners who regard it as a nuisance. Another result of the modern techniques of cultivation is a higher water level in what the hydrologists call the "zone of aeration"—i.e., roughly speaking, the topsoil. To the extent that cultivation can accomplish that the farmer will find an alternative to irrigation at a substantially lower cost.

The surface water that has long been considered a nuisance in Indiana is therefore vital to the restoration of the ground water supply, to the reliable flow of streams, and to the water level in lakes and man-made surface water storage facilities. And the techniques which preserve surface water in these areas will incidentally reduce the soil erosion, flooding and damage that surface water causes—one thing the scientists talk about which is amply illustrated in the private lawsuits.²⁰⁸

But not all of the need for water is future. A state which depends on rainfall for agricultural and municipal water is plagued by a perennial uncertainty of water supply.²⁰⁹ In any year stream flow in Indiana is highly erratic,²¹⁰ but in July 1963 the streams all over the state were con-

208. COOPERATIVE EXTENSION SERVICE, PURDUE UNIV., WATERSHED WATER 3-4 (1962), discusses soil conservation generally. See also INDIANA DEP'T OF PUBLIC INSTRUCTION, CONSERVATION OF WATER (1946).

209. COOPERATIVE EXTENSION SERVICE, *supra* note 208, at 2, states that the greatest present problem is a "lack of balance between supplies of and demand for water." COOPERATIVE EXTENSION SERVICE, PURDUE UNIV., WATER MANAGEMENT THROUGH WATERSHEDS 3 (1962), states: "Periods of heavy rainfall and excess run-off, which cause flooding, alternate with periods of too little rain or drought. Therefore, excess water during heavy rainfall periods must be stored to use during times of low rainfall." Kellum, *supra* note 200, contains a general discussion of this problem. The use of natural ground water storage is, of course, a necessary ingredient in plans to solve the problem. See GROUND WATER REGION REP. 3, 51.

210. INDIANA STATE BD. OF HEALTH & STREAM POLLUTION CONTROL Bd., INDIANA WATER QUALITY (1961), is devoted principally to water analysis at 49 stream sites throughout the state; these statistics include water flow during 1961. Allowing for the fact that diversion and human use affects stream flow, the variation in flow is remarkable, particularly in the southern part of the state. The following chart is abstracted from *id.* at 21, 23, 30, 36, 43, 49, & 60:

WATERFLOW IN INDIANA

	<i>Low date, cubic ft. per sec.</i>	<i>High date, cubic ft. per sec.</i>
Big Blue River, Shelbyville	Jan. 1, 86	April 27, 6,560
Eel River, Logansport	Feb. 1, 154	April 26, 4,280
Kankakee River, Shelbyville	Jan. 18, 885	April 24, 3,920
Mississinewa River, Marion	Jan. 24, 45	April 19, 5,340
St. Joseph River, South Bend	July 31, 1,330	May 1, 8,530
Wabash River, Mt. Carmel, Ill.	Jan. 11, 4,330	May 18, 179,000
Whitewater River, Brookville	Jan. 4, 152	April 27, 6,500

Flow is relatively more constant in the northern part of the state. This is accounted for by the glaciated character of the soil, and the greater capacity for ground water storage in the northern part of the state. See GROUND WATER REGION REP. 51.

sidered lower than normal. The average daily flow of the Mississinewa River, for instance, was lower in June 1963 than in any year since 1948, and at the Shoal gauge on the east fork of the White River flow was lower than in any year since 1954.²¹¹ Rainfall was 5.47 inches below normal in South Bend, 5.30 inches below normal in Terre Haute and 4.80 inches below normal in Evansville. On June 27, 1963, the Indianapolis Water Company pumped more water than in any day in its history.²¹²

Scientists and officials of state and federal agencies concerned with water conservation have outlined an imposing number of programs for water conservation, all of them touching the use of surface water. The general objective is a dependable future water supply and a consistent present water supply. More specifically, the Indiana Flood Control and Water Resources Commission in cooperation with the Corps of Engineers of the United States Army has established four general goals in its water conservation program: (a) flood control by retaining surface water, (b) water storage to regularize supply, (c) recreational water facilities, and (d) the release of retained water during periods of drought.²¹³ These objectives call for governmental, local and individual activity.

The Monroe Reservoir, which will provide 30 billion gallons of water storage and 11,000 acres of recreational shoreline, is now nearly completed; indeed, it is doubtless the project of which the Water Resources Commission is proudest.²¹⁴ But there are a number of other reservoirs planned by this commission and the Corps of Engineers—a recent newspaper survey listed 12.²¹⁵ The Corps of Engineers also has authority to construct small emergency flood control projects.²¹⁶

In 1960 the Water Resources Commission listed a number of local programs, conducted with varying degrees of state and federal supervision,²¹⁷ along with the results of its own study of watersheds in Indiana. This study is the Commission's first step in outlining other state and federal programs and in encouraging local governments and individuals

211. Kellum, *supra* note 200.

212. Kellum, *supra* note 200, quoting Malcolm D. Hale of the Geological Survey, U.S. Dep't of the Interior.

213. *Ibid.*; see also COOPERATIVE EXTENSION SERVICE, PURDUE UNIV., WATER MANAGEMENT THROUGH WATERSHEDS (1962).

214. This project is discussed in great detail in INDIANA FLOOD CONTROL & WATER RESOURCES COMM'N, *supra* note 199.

215. *Ibid.*

216. COOPERATIVE EXTENSION SERVICE, *supra* note 213, at 10.

217. INDIANA FLOOD CONTROL & WATER RESOURCES COMM'N, *supra* note 199 at 63-74, 76-77.

to develop smaller-scale projects.²¹⁸ For some of these projects, notably those with flood control potential, state and federal loans are available.²¹⁹ Many of them have the incentive of promising results in steady supplies of municipal water. In Fort Wayne, for instance, the construction of dams on the St. Joe River has solved for the time being what was once a critical water shortage in the driest of summer months—this even though the 1963 flow was in the lowest one-tenth of its historic range. Roughly 25 billion gallons of new water storage has been produced in these local projects since 1953.²²⁰

In addition to local projects, most governmental activity in this area is on the largest possible scale and is perhaps only slightly relevant to a discussion of private lawsuits over surface water.²²¹ But state and federal governments also aid municipal projects and individual and cooperative efforts. For instance, engineering aid is available from federal and state governments, the Soil Conservation Service, the United States Forest Service, the United States Fish and Wildlife Service, and the Indiana Department of Conservation.²²² These areas of assistance all encourage local effort and cooperative effort on levels even smaller than that of local government. In this latter category, public assistance is given to conservancy districts organized under the supervision of the circuit courts, and legal drainage organizations under the supervision of the county surveyors.²²³

There is, finally, the individual effort that these governmental agencies encourage in the intelligent use of surface water; this is aimed at reducing flood loss and soil erosion and at saving water for use during droughts.²²⁴ It involves a number of cultivating techniques,²²⁵ some of them encouraged by government subsidy and others encouraged by the

218. *Id.* at 53-62.

219. *Id.* at 46-48.

220. Kellum, *supra* note 200.

221. COOPERATIVE EXTENSION SERVICE, *supra* note 213.

222. *Ibid.*

223. *Ibid.*

224. COOPERATIVE EXTENSION SERVICE, *supra* note 208, at 3-4.

225. These projects are summarized in most of the literature cited on this subject. See especially Kellum, *supra* note 200; INDIANA FLOOD CONTROL & WATER RESOURCES COMM'N, *supra* note 199. A recent example of governmental and individual cooperation in this area is summarized in Morris, *Lake Dedication is Another "First,"* The Indianapolis News, August 14, 1963, page 34. That article reports the completion of a new "recreational lake" between Salem and Scottsburg on the Elk Creek Watershed. Construction of seven dams, begun in 1957, was aimed at the control of some 8,000 acres of steep hill watershed in that project. But, aside from governmental effort, the overall project involved four miles of improved public drainage ditches, and an extensive program of private development, including tree planting, terracing, sod waterways, form ponds and the planting of grass in "critical silting areas." The article reports that about 90 per cent of this individual program has been completed.

perhaps more potent spectre of wholesale soil erosion and crop failure.²²⁶

IV. CONCLUSION

"I am by no means convinced," Joseph Wood Krutch said, "that Nature Always Knows Best—merely that she has usually hit upon an arrangement which will work, even though, often, inefficiently."²²⁷ Nature's water arrangements in Indiana have worked well, but the time when the state will be paying too high a price for them seems to be nearly here.

The rules developed by the state's judiciary to deal with surface water diversion are generally realistic and amenable to the progress that the public law demands in water conservation. In any event, this paper was not written to suggest their wholesale revision. But the philosophy, stronger half a century ago than it is now, that surface water is a nuisance is deficient in this generation. Since the common enemy rule was first invoked in Indiana, science has discovered the critical importance of ground water storage and the significant fact that ground water can be replenished and even increased by intelligent conservation of surface water. These facts, and recent public and private efforts to capture surface water in surface storage, demand a judicial philosophy that recog-

226. Some of these devices and the predictable consequences of their use are:

<i>Device</i>	<i>Legal consequence</i>
1. Contour farming	1. Protected under the <i>sic utere</i> principle
2. Terrace cultivation	2. Same as in 1
3. Cultivation which does not pack the soil	3. Same as in 1
4. Drainage of flatlands through sub-surface draining projects	4. Protection depends on the status given the ditch used for drainage
5. Downstream channel improvement	5. Protected but of doubtful permanence where the channel is one which has neither a natural watercourse status or an easement over the objecting landowner's property
6. "Vegetational management" through the use of forage crops.*	6. Same as in 1
7. Private industrial projects to conserve water and improve ground water storage	7. The effect on contiguous property owners would have to be closely examined
8. Pollution control projects**	8. Same as in 7

* This device is discussed in INDIANA FLOOD CONTROL & WATER RESOURCES COMM'N, *supra* note 199, at 4. It is recommended especially in southern Indiana, where the soil favors forage crops. There is an experimental farm at Jasper, managed by Purdue University and dedicated to demonstrating their utility.

** See INDIANA STATE BD. OF HEALTH, *supra* note 211, and 1962 INDIANA STREAM POLLUTION CONTROL BD. ANN. REP.

227. THE BEST OF TWO WORLDS 39 (1950).

nizes almost all water as useful. Here are a few specific suggestions:

1. Protection of reasonable individual effort. This calls for an intelligent application of the *sic utere* principle and, it seems, for exploitation of the appreciable amount of scientific data on water conservation through modern cultivation techniques by advocates and judges.

2. Narrow application of the common enemy rule. The only factual situation in which the common enemy rule has, or should have, any vitality in this state is that involving the lower property owner making efforts to keep surface water from flowing onto his land. Since the lower property owner has no control over water not yet on his land, and no opportunity to put it to constructive use, his efforts should be given protection. The holding in *Newton v. Lyons*²²⁸ is illogical, unrealistic and inconsistent with precedent. The sooner it is repudiated or forgotten, the better. Except for this one factual situation the beneficent, interest-balancing effects of the *sic utere* principle in Indiana precedent should be used to favor property owners who respect their natural resources and use them in a manner consistent with the public interest in water.

3. Recognition of the value of non-governmental common effort. The *Clay*²²⁹ opinion, which frustrated the efforts of a group of neighborhood farmers to provide drainage for their land and benefited a railroad company which could have provided a culvert for their benefit at relatively little cost, showed regrettable judicial opposition to an effort that promised a cooperative use of surface water resources. Since it is likely that this case would be decided differently now, extended condemnation of it is unnecessary. What the courts should do, in light of the scientific facts now available on surface water, is develop a third category of protected channel drainage. The opportunity to do that in the *Gwinn*²³⁰ case was lost on the court, and the decision was grounded in a totally unrealistic definition of a natural watercourse. There are really four categories of channels which should be differentiated in this regard: (1) the watercourse, which is *publici juris*; (2) the easement, which is a form of private ownership similar to the watercourse in its consequences to lower property owners; (3) the drainage facility taken by eminent domain; and (4) the drainage facility cooperatively and reasonably developed on the neighborhood level. It is only the last of these which is now without legislative or judicial protection.²³¹

228. *Newton v. Lyons*, 120 Ind. App. 465, 90 N.E.2d 917 (1950).

229. *Clay v. Pittsburgh, C.C. & St. L.Ry.*, 164 Ind. 439, 73 N.E. 904 (1904).

230. *Gwinn v. Myers*, 234 Ind. 560, 129 N.E.2d 225 (1955).

231. Professor Conrad Kellenberg of the Notre Dame Law Faculty kindly read this paper and called to the author's attention the Model Water Use Act, reprinted at

4. An expansion of the doctrine of usefulness. *Trout v. Woodward* injected into the legal distinctions between watercourses and surface water channels a utilitarian test based on water usefulness. That test could easily be made the basis of an entirely new judicial distinction between drainage channels. To a substantial extent the Indiana cases have already defined watercourse water as useful water and surface water as useless water. If that basis of distinction were enunciated, the court in balancing the interest in surface water cases could make overt allusion to the public benefit being advanced by the parties and base its decision on principles which would better serve the public's need for water. Certainly any water in the state which can be made to contribute to this need should be marshalled for that purpose, and property owners who marshal it reasonably should be given judicial protection.

Water, intelligently used, will make two ears of corn grow where one grew before. As Jonathan Swift said, the author of that accomplishment "would deserve better of mankind, and do more essential service to his country, than the whole race of politicians put together."

WATER RESOURCES AND THE LAW 535 (1958). Section 402 of that statute would give a water resources commission authority to control what is there defined as "diffused surface water" (as distinguished from "contained water" not underground). The commission would hold hearings on proposed projects to impound surface water, and give maximum-impounding permits with limits expressed in acre-feet; the statute allows small projects to proceed without commission control. The permit holder is liable for actual damages caused by his activity. *Id.* at 579, § 414. In Indiana, this would in effect extend the authority of the Flood Control and Water Resources Commission to control of "diffused surface water."

INDIANA LAW JOURNAL

Volume 39

FALL 1963

Number 1

INDIANA UNIVERSITY SCHOOL OF LAW

STUDENT EDITORIAL STAFF

Editor-in-Chief

DAVID B. HUGHES

Associate Editor

JOHN E. ALLEN

Articles Editor

ROBERT P. KASSING

Book Review Editor

THOMAS A. COYNE

Note Editors

RALPH A. COHEN

JAMES V. MCGLONE

ROBERT P. TINNIN, JR.

CHARLES O. ZIEMER

Associate Editor Indianapolis Division

JOHN C. STARK

RICHARD L. BESORE

STEVEN E. DEVOE

CONTRIBUTORS TO THIS ISSUE

ERNEST F. ROBERTS: A.B. 1952, Northeastern Univ.; LL.B., 1954, Boston College; Professor of Law, Villanova Univ. School of Law.

MICHAEL CONANT: B.S. 1945, Univ. of Illinois; A.M. 1946, Ph.D. 1949; J.D. 1951, Univ. of Chicago; Associate Professor, School of Business Administration, Univ. of California.

THOMAS L. SHAFFER: B.A. 1958, LL.B. 1961, Univ. of Notre Dame; Assistant Professor of Law, Notre Dame Law School.

WILLIAM H. ANDREWS: A.B. 1956, DePauw Univ.; J.D. 1959, Indiana Univ.; Associate, Evans, Baker & Barnhart.

WILLIAM H. REMY: LL.B. 1915, Indiana School of Law; Member of the Indiana Bar.