Illinois Study of Highway and Agricultural **Drainage Laws**

CARROLL J. W. DRABLOS and BENJAMIN A. JONES, JR. Respectively, Research Associate and Associate Professor, Agricultural Engineering Department, University of Illinois

•NATURE'S elaborate system of drainage is constantly changing in response to changes in the face of the earth. Where these latter changes are man-made, the need for adjustment of the drainage system may be sudden, and the adjustment that is needed may be of extensive proportions. Modern methods of agriculture and construction of highway improvements present examples of man-made changes which frequently call for substantial relocation and reconstruction of drainage systems. The effects of these agricultural and highway improvements raise questions which involve not only physical engineering, but the legal relationships and responsibilities of landowners among themselves and between landowners and the public, represented by various agencies of government. An orderly, coordinated, and realistic body of agricultural and highway laws relating to drainage greatly facilitates achievement of prompt and satisfactory adjustment of highway and drainage facilities where their reconciliation is needed.

Historically the laws relating to highways and drainage have grown up separately. As a result, the developments in relatively recent years which have sharpened the need for closer coordination of programs and drainage improvements have, at the same time, presented particular difficulties for both lawmakers and engineers in working to achieve this coordination. There is particular need to study highway and drainage laws in a way that permits comparisons and highlights their points of contact with each other. The benefits of such study accrue both to those who are responsible for formulating policies and procedures, or interpreting the law in its application to controversies, and to those who are responsible for designing or administering programs of drainage and highway improvements.

Recognizing the need for a coordinated approach to dealing with drainage and highway laws, the Agricultural Engineering Department of the University of Illinois submitted a proposal to the Illinois Research Council to compile and assemble into a single study the laws relating to agricultural drainage and highway drainage in Illinois, and to investigate the practices and procedures of highway authorities and others in handling drainage problems. A research project prospectus was approved by the Illinois Highway Research Council and submitted for Illinois' Cooperative Highway Research Program. The project, as approved for this program, was activated in February 1959 with funds supplied by the U. S. Bureau of Public Roads, the Illinois Division of Highways, and the Illinois Agricultural Experiment Station.

One major objective of this project was to compile and analyze existing Illinois drainage laws applicable to highway and agricultural activities, and to present this information in a single source. Another objective was to analyze the drainage policies and practices of highway and engineering agencies. The entire project was, therefore, divided into two phases: one, a study of the law as it is written, and the other a study of the law in action, as reflected by administrative and engineering practices.

The first phase has now been completed. It is the objective of this paper to indicate

Paper sponsored by Special Committee on Highway Laws.

¹A full report of the first phase of this project has been published in the University of Illinois Bulletin. See Drablos, C.J.W., and Jones, B.A., Jr., "Illinois Highway and Agricultural Drainage Laws", Univ. of Illinois Engineering Experiment Station Circular No. 76, (Urbana, 1963), 70 pp.

briefly the major substantive areas of the subject matter dealt with in the Illinois law, and which are likely to be found in the law of other States, and to describe the framework used for organizing and carrying on this study of related laws.

COMMON LAW RULES OF DRAINAGE

Laws relating to drainage are derived from two sources: common law and statutory law. The common law is found in court decisions declaring principles, practices and customs which have evolved and are commonly accepted without the formality of legislative enactment. Because the common law is based on experience, it is natural that new factual situations due to advances in highway and agricultural technology have, from time to time, revealed gaps for which no precedent exists or for which public policy calls for a change in the law. Thus statute law, enacted, by the State legislatures, has built up a substantial body of rules supplementing, and sometimes supplanting, the common law. From these two sources a comprehensive, but not always explicit, set of rules has developed to provide for the establishment of rights regarding drainage and to settle disputes arising over these rights.

Three common law rules regarding drainage of surface waters are found in the laws of the several States. They are known as the civil law rule, the common enemy rule, and the reasonable use rule. The historical roots and rationale of these rules may be described with relative clarity; however, identification of these rules with the law of particular States is risky because of judge-made modifications in applying these rules to factual situations.

In its strictest form, the civil law rule recognizes the existence of natural drainage between adjoining lands: The owner of the lower land must accept the surface water that naturally drains onto it. On the other hand, the owner of the upper land can do nothing to change the natural system of drainage to increase the natural flow. In other words, those acquiring land must expect and are required to accept it subject to the conditions of nature. The civil law rule has the advantage of making the rights readily predictable, and it tends to avoid the contests in hydraulic engineering that are likely to occur under other doctrines.

Diametrically opposed to the civil law rule is the common enemy rule, which recognizes an owner's right to use his property as he pleases. It gives each landowner an unqualified right, by means of operations on his own land, to fend off surface waters as he sees fit, without being required to take into account the effect on other landowners, who have the duty and right to protect themselves as best they can.

The reasonable use rule differs from both the civil law and the common enemy rule in that a possessor of land is not unqualifiedly privileged to deal with the natural flow of surface waters to the detriment of others. A landowner incurs liability only when his interference with the flow of surface water is unreasonable. The issue of reasonableness is determined in each case by considering all relevant circumstances, such as the amount of harm that is caused, the foreseeable harm caused by the person who alters the flow, the motive by which he acted, etc. The rule of reasonable use differs from the other two rules in that it leaves the whole matter of legal liability for injury to be determined upon the facts of each case in accordance with the general principles of fairness and necessity.²

Many additions, qualifications, and restrictions in both the civil law and the common enemy rule have been made by the courts and legislatures. In fact, both rules have been so modified that there now may seem to be no valid distinction betweem them and and the rule of reasonable use. However, the conclusion that the three rules are now one and the same is not justified. A leading drainage attorney in Illinois³ draws the following conclusion regarding the use of the three types of drainage rules:

²S.V. Kinyon and R.C. McClure. "Interferences With Surface Waters," Minnesota Law Review, Vol. 24, No. 7, p. 891 (1940).

³ D. V. Dobbins. "Surface Water Drainage," Notre Dame Lawyer, Vol. 36, p. 518 (August 1961).

The civil law rule in its unmodified form creates an implied easement of natural flow in favor of the higher land across the lower land. This easement concept remains as the basic element of the civil law rule, which is not to be found in the common enemy rule (either in its original or modified form) or in the reasonable use rule. The rule has been modified in some jurisdictions to permit the owner of the dominant estate to improve the drainage upon his land in any manner that he pleases so long as he does so in the general course of natural drainage. This modification is a grant of an additional right to the upper owner and is an enlargement of, not a restriction upon, the burden which the lower land must bear. In other jurisdictions the rule has been less drastically modified in that the improvement of the drainage on the upper lands must be reasonable and not cause undue hardship to the lower lands. Again the easement element of the rule remains and the reasonable use limitation is placed only upon the upper landowner. Thus, the rule, in both its original and modified forms, grants a right to the owner of the dominant estate and places a corresponding duty upon the owner of the servient estate.

The common enemy rule in its inception granted unqualified rights to both the upper and the lower landowners but placed no corresponding duty on either. The modifications of this rule have all had the result of limiting the rights originally granted under the rule. Thus the rights still remain—although they must be exercised in a reasonable manner so as not to cause undue hardships upon the land of a neighbor.

The reasonable use rule is essentially a tort rule involving both intentional and unintentional invasions of another's interest in the use and enjoyment of his land. The rule is negative in its concept. It does not grant any rights, but attempts to define the circumstances under which an owner of land will be held liable in damages for the use which he makes of his land. It puts the law of surface water drainage in the category of a private nuisance. No one has the right to create or maintain a nuisance, but not every nuisance is an actionable one. So it is with surface waters under this rule. No owner is given any right to improve the drainage of his land under this rule, but if he does so he may or may not be liable for any injury which results.

Types of Drainage Water Movement

Four types of drainage water movement are generally recognized: (1) channel, (2) surface, (3) flood, and (4) percolating. The courts have indicated that the civil law rules of natural drainage are applicable to channel, surface,⁴ and flood waters.⁵ These rules do not apply to percolating waters, which are generally considered to be part of the land and therefore belong to the owner of the land.

Surface water has been defined as water derived from falling rain or melting snow or which rises to the surface in springs and is diffused over the surface of the ground. Water is considered surface water until it reaches a well-defined channel and becomes part of the running water of a stream. However, this difference is of little consequence in Illinois, since the courts have stated that they can perceive no reason why the same drainage rule should not apply to surface waters, running streams, and watercourses.

⁴Gormely v. Sanford, 52 Ill. 158 (1869).

⁵ Pinkstaff v. Steffy, 216 Ill. 406, 75 N.E. 163 (1905). ⁶ 56 Am. Jur., "Waters," Sec. 65 (1947).

⁷Crawford v. Rombo, 44 Ohio St. 279, 7 N.E. 429 (1886). ⁸Pinkstaff v. Steffy, 216 Ill. 406, 75 N.E. 163 (1905).

Natural Flow of Surface Water

The civil law rule is traceable to the continental European civil law, where in the 17th century the civil law of France had been adapted from the old Roman law. At that time the natural drainage rule indicated no servitude unless water was flowing in a regulated watercourse. Therefore, it seems that a possessor of lower land was privileged to obstruct the natural flow of surface water from adjoining land if it flowed naturally in a diffused state over a wide area. This interpretation raises the question whether the rules of natural drainage apply to surface water flowing in a diffused state. The American courts, in States committed to the civil law rule, generally took their statement of the rule from sources that did not include the regulated course requirement. Therefore, it may be argued that a possessor of lower land is not privileged to obstruct the natural flow of surface water either where the flow is through natural drainways or where it is diffused over a wide area.

The civil law rule has been illustrated as follows:

... as between the owners of higher and lower ground, the upper proprietor has an easement to have surface water flow naturally from his land onto the land of the lower proprietor, and that the lower proprietor has not the right to obstruct its flow and cast the water back on the land above. 12

Acceleration

Where natural drainage exists, the question arises whether the upper owners may make improvements upon their land which increase or accelerate the flow upon the lower land. Such improvements may be in the form of increased areas of cultivation, increased land use, improvement of drainage channels, drainage of ponded areas, or changes in land use (such as urbanization of agricultural land). Another might be the placing of a culvert in a natural channel intercepted by the roadway. At the time of its installation, the culvert may be adequate to handle the natural flow from the upper watershed. However, as time goes by, various improvements in the upper watershed may cause the flow to increase. As a result, the culvert occasionally may not be able to handle the increase, causing water to back up on the upper land. In such event who is responsible for increasing the size of culvert to adequately handle the increase in flow?

Under the rules of natural drainage in Illinois, the owner of the upper, or dominant, land has the right to pass off surface waters through natural drains upon and over the lower, or servient lands. In addition, the courts have said that the owner of the dominant land has the right to drain water by artificial means into natural channels on his own land even if the quantity deposited upon the adjoining servient lands is thereby increased and the flow accelerated. This ruling, however, is limited by the condition that all of the land drained either naturally or artifically must lie within the natural basin that drains into the tributary watercourse.

The owner of the dominant land has no right to collect and discharge water onto lower land if the water would not naturally flow in that direction. Furthermore, he has

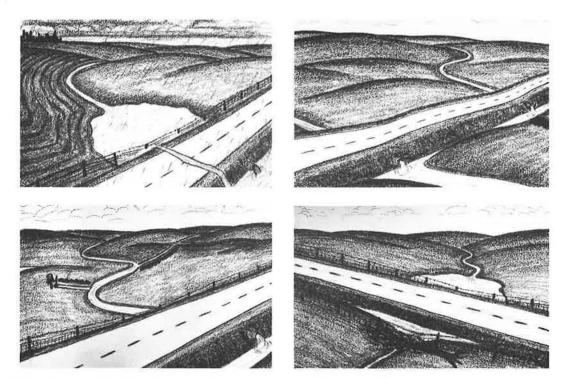
⁹ Jean Domat. "The Civil Law in Its Natural Order," Vol. 1, Book 2. (Boston:1853).
¹⁰ H.P. Farnham. "The Law of Waters and Water Rights," Vol. 3, Sec. 889a. (Rochester, 1904).

¹¹ S. V. Kinyon and R. C. McClure. "Interference With Surface Waters," Minnesota Law Review, Vol. 24, No. 7, p. 891 (1940); Johnson v. Marcum, 152 Ky. 629, 153 S. W. 959 (1913).

¹²⁹³ C. J. S., "Waters," Sec. 114 (1956). See also "Surface Water Law in Virginia," Virginia Law Review, Vol. 44, No. 1, p. 135 (1958).

13 Dayton v. Drainage Commissioners, 128 Ill. 271, 21 N.E. 198 (1889); Peck v.

¹ Dayton v. Drainage Commissioners, 128 Ill. 271, 21 N.E. 198 (1889); Peck v. Herrington, 109 Ill. 611 (1884); Town of Saratoga v. Jacobson, 193 Ill. App. 110 (1914); Fenton and Thompson R. R. v. Adams, 221 Ill. 201, 77 N. E. 531 (1906).



Interference with the flow of natural drainage by (upper left) acceleration due to upstream improvements, (upper right) diversion, (lower left) drainage of ponded areas, and (lower right) obstruction of natural flow path.

no right to collect even the water that would naturally flow toward the servient land and discharge it in a body except in a natural channel or watercourse. Although no court seems to have considered the question, it is probable that the right to accelerate the flow of water on the dominant land by means of artificial ditches is limited to the requirements of good husbandry. If the acceleration is done wantonly, with the purpose of injuring the lower owner, it is probable that a court would enjoin the dominant owner from continuing. 15

There seems to be little concern about the increase of flow in established streams caused by accelerating the flow on the upper land, probably because any increase in volume would be almost negligible in comparison with the total natural flow. It is generally considered, also, that any overflow of an established stream is usually caused by waters draining naturally into the streams, and artificial works on the dominant land do not make any appreciable difference. ¹⁶

Diversion

Water is considered diverted either when a channel is changed wholly within the premises of one landowner or when it is changed so that the water flows onto the servient land at a location other than the point of natural entry.

Diversion of water wholly within the premises of an individual owner has been held to be permissible provided new artificial channels are not created on lower lands, and the channel is restored to its original location before the water reaches the land of

¹⁴Throop v. Griffin, 77 Ill. App. 505 (1898).

 ¹⁵ G.W. Pickels and F.B. Leonard. "Engineering and Legal Aspects of Land Drainage in Illinois, Illinois State Geological Survey Bulletin 42, Urbana, Ill., p. 282 (1929).
 16 F.B. Leonard, Jr. "Common Law Drainage of Surface Waters and the Illinois Drainage Statutes," Doctoral Thesis, Univ. of Illinois College of Law, p. 14 (1916).

others.¹⁷ Therefore, the privilege of diverting water wholly within the premises of an individual owner depends on having the water pass from the higher to the lower owner at the precise point of natural entry.¹⁸

If a diversion allows water to enter the premises of a lower owner at a point other than natural flow, the courts have held the upper owner liable. The owners of higher ground are not authorized by law to remove natural barriers and thereby allow water to flow out of its natural course onto adjoining and lower lands. ¹⁹ Nor do the dominant landowners have the privilege of collecting water usually flowing onto the lower fields by several channels into one channel and thereby cause it to flow in undue and unnatural quantities to the injury of the lower owner. ²⁰

The principles of diversion apply to highway authorities as well as to individual land-owners. Adjoining landowners have a right to drain their lands across or along highways provided they follow the path of natural drainage. And, in turn, highway authorities may prevent landowners from diverting and casting water on the highway out of its natural course. Likewise, highway authorities have the right to drain roads under the natural drainage rules, but in so doing they generally are not permitted to collect and divert a quantity of water along the highway that would drain naturally in another direction except under certain statutory provisions when it can be shown that it is for the public benefit. 22

Ponded Areas

The easement for the discharge of surface waters is not confined to water flowing from the dominant estate where the natural surface of the ground remains undisturbed. It extends also to waters collected in natural ponds and low and marshy areas located in the path of natural flow. ²³ This is an exception to the restriction on removing natural barriers. A landowner may remove natural barriers surrounding a pond or a series of ponds formed by the collection of surface water on the dominant land, provided the ponds are situated on a grade descending toward the lower land, and the removal of such barriers will allow the water from the ponds to drain into a natural watercourse. ²⁴

Ponds are generally surrounded by a rim, and at some point on the circumference of the rim there is usually a slight depression that allows overflow. This point is considered the natural outlet of the ponded area, ²⁵ and a landowner may cut the rim or deepen the depression at this point of lowest elevation to drain the basin. However, no authority permits the dominant owner to cut through the rim at a location other than the lowest point and thereby allow the water to drain on the land of another. ²⁶

How large a pond may be drained on and over the adjoining owner has not been completely answered. It is clear that small ponds located on the dominant estate may be drained in the course of natural drainage, and that the dominant owner may drain a pond that collects surface water from rain and melting snow. The owner of the higher land may not, however, drain a natural lake or large body of water on the land of an adjoining owner. In this matter the question of when the lower land has in fact been overburdened may be an important consideration.

Obstruction

The servient landowner may not interrupt or prevent the natural flow or passage of

```
17 Dettmer v. Illinois Term. R.R., 287 Ill. 513, 125 N.E. 37 (1919); Daum v. Cooper, 208 Ill. 391, 70 N.E. 339 (1904).

18 Fenton and Thompson R.R. v. Adams, supra, note 13.

19 Dayton v. Drainage Commissioners, supra, note 13; Anderson v. Henderson, 124 Ill. 164, 16 N.E. 232 (1888).

20 Gillhem v. Medison County R.R., 49 Ill. 484 (1869).

21 Davis v. Commissioners of Highways, 143 Ill. 9, 33 N.E. 58 (1892).

22 Ill. Rev. Stat., Ch. 121, Sec. 4-502, 5-802, and 6-802 (1961); Young v. Commissioners of Highways, 134 Ill. 569, 25 N.E. 689 (1890).

23 Fenton & Thompson R.R. v. Adams, supra, note 13.

24 Commissioners of Highways of Pre-Emption v. Whitsitt, 15 Ill. App. 318 (1884).

25 Anderson v. Henderson, supra, note 19.

26 Fenton & Thompson R.R. v. Adams, supra, note 13.
```

water across his land to the detriment or injury of the dominant proprietor. This rule is often applied to acts causing obstruction of a natural watercourse. Here the important point is not whether the force of the water flowing from one tract to another has been sufficient to make a channel with definite and well-marked sides or banks but, rather, whether it moves uniformly or habitually over a given course having reasonable limits in width.²⁹

Many of the cases concerning obstruction of natural flow have involved highways constructed across agricultural land. Thus, in one case, the lower landowner obstructed a natural watercourse at a point where it crossed a public highway. The upper landowner (the highway agency) petitioned the court to have the lower landowner remove the obstruction. The court sought to determine that the watercourse was natural, and then held that the highway agency had the right to have water falling on the highway flow off into the natural watercourse. It held further that, if the water falling on land on one side of a highway flowed naturally across the highway through a swale or depression onto lands on the other side, a natural watercourse existed even though it did not have well-defined banks and bed, and did not flow at all times of the year. The same principles apply to both highway authorities and private landowners.

The party erecting an embankment across a natural watercourse is generally considered responsible for providing openings adequate to allow water from the land above to flow as it has in the past. However, whether rainfall is so heavy and unprecedented that the damage it causes may be considered "an act of God," which thereby may relieve the defendant from liability, is a question to be determined by a jury. 32

When an upper owner has wrongfully diverted water from his land onto the land of a lower owner at a point where it would not flow naturally, Illinois courts hold that the latter may lawfully obstruct the flow of such waters upon his premises.³³ In addition, a natural obstruction on the servient land, such as shrubs, weeds, brushwood, cornstalks, or other crop residues may accumulate and impair natural drainage, and the owner of the higher land cannot compel the owner of the lower land to remove it.³⁴

Overflow

In Illinois, water overflowing the banks of a small stream comes within the rules governing natural drainage. Where the natural slope of the land makes one side of a small stream the dominant land and the other side the servient land, the servient landowner has no right, by use of embankments or other artificial means, to stop the natural flow of flood waters over his land and thus force them on the dominant land. Even the interest of good husbandry does not justify construction of a levee to protect land from overflow in times of flood if it interferes with the natural flow of water and thus injures the owner of a dominant estate. He however, the position of the land is such that water does not flow naturally from one side of the stream to the other, adjacent landowners have the right to build levees or embankments to prevent overflow so long as no injury is caused to others.

On occasion, landowners adjacent to the highway have contended that highway agencies are obligated to drain their land and protect it from overflow. However, Illinois courts have held that these agencies are not responsible for providing drainage to protect adjacent land from natural overflow of water.³⁸ Also, highway agencies cannot bind them-

²⁸ Mellor v. Pilgrim, 7 Ill. App. 306 (1880); Gillham v. Madison County R.R. supra, note 20.

²⁹ Lambert v. Alcorn, 144 Ill. 313, 33 N.E. 53 (1893).

³⁰ Town of Bois D'Arc v. Convery, 255 III. 511, 99 N.E. 666 (1912). ³¹ Younggreen v. Shelton, 101 III. App. 89 (1901).

³²Chicago, P. & St. L. Ry. v. Reuter, 223 Ill. 387, 79 N.E. 166 (1906).

Schmitz v. Ort, 92 Ill. App. 407 (1900).
 H.W. Hannah. "Illinois Farm Drainage Law," Circular 751, University of Illinois College of Agriculture," p. 7 (1956).

³⁵ Mauvaisterre Drainage & Levee Dist. v. Wabash Ry., 299 Ill. 299, 132 N.E. 559 (1921).

³⁶ Pinkstaff v. Steffy, supra, note 8.
37 Shontz v. Metzger, 186 Ill. App. 436 (1911).
38 Padfield v. Frey, 133 Ill. App. 232 (1907).

selves by agreement to furnish drainage for areas not being overflowed to a greater extent than they originally were, unless drainage is made necessary by their acts.

Easements and Licenses

Various types of easements may be employed in conjunction with common law rights to deal with drainage problems. Easements may be acquired based on uninterrupted use of land, for a period of 20 years, contrary to the rights of the owner or person with primary rights. Rights of drainage by prescription release the servient estate from the burden of the original easement.³⁹

The State and Federal governments are generally considered immune to the application of prescriptive rights. However, the exemption of counties, cities, towns, and other minor municipalities from the operation of the statute of limitations extends only to matters affecting their public rights (as distinguished from private and local rights). Public rights are considered those in which the people as a whole have an interest in common, whereas private rights are those enjoyed exclusively by the inhabitants of a local district.⁴⁰

In various situations licenses may be useful legal devices for creating temporary or special drainage arrangements between adjacent landowners. A license is an authorization to perform a particular act on or affecting the land of another, and differs from an easement in that it confers on the licensee no possessory interest in the property subject to his act. Licenses may be granted informally, by oral agreement, and are generally revocable at the will of the licensor. However, study of the law relating to licenses and easements discloses troublesome areas where distinctions are not clearly maintained, and where agreements purporting to be licenses are treated as creating vested rights in the nature of easements.⁴¹

STATUTE LAW RELATING TO DRAINAGE

Supplementation of common law rules by statute law has resulted in clarifying the rights and duties of private landowners to each other and in relation to the public. Additionally it has performed the important function of providing a framework of procedure for performing various acts needed to establish and operate coordinated drainage systems. As presently codified, the statutory law relating to drainage is found in connection with various powers and functions of government. Some deal with the relationship between landowners and highway agencies; others deal with the relationship needed to coordinate the activities of public agencies; still others deal with remedies and procedures.

Relationship Between Highway Authority and Individual Landowners

Eminent Domain.—Generally, the drainage of highways across adjoining lands is governed by the same rules as apply to drainage of private lands. One exception is that a highway agency may use the eminent domain laws to acquire property or rights to perform necessary functions of drainage. 42

The highway agency must, however, respect certain limitations as to its use of eminent domain laws. It may not use the right for the purpose of carrying off sewage deposited on the highway. ⁴³ If land is acquired by eminent domain for highway purposes, injuries to the landowner are to be expected and the landowner is to be reimbursed for them in the eminent domain award. However, condemnation does not bar the landowner

³⁹ Zerban v. Eidmann, 258 III. 486, 101 N.E. 925 (1913).

⁴⁰ Phillips v. Leininger, 280 Ill. 132, 117 N.E. 497 (1917); Savoie v. Town of Bourbonnais, 339 Ill. App. 551, 90 N.E. 2d 645 (1950); Brown v. Trustees of Schools, 224 Ill. 184, 79 N.E. 579 (1906).

⁴¹ Wessels v. Colebank, 174 III. 618, 51 N.E. 639 (1906); Van Ohlen v. Van Ohlen, 50 III. 528 (1870).

⁴² Ill. Rev. Stat., Ch. 121, Sec. 4-502, 5-802, and 6-802 (1963).

⁴³Dierks v. Commissioners of Highways of Twp. of Addison, 142 III. 197, 31 N.E. 496 (1892).

from filing suit for a subsequent injury growing out of the negligence or unskillfulness of the public authorities in constructing drains in the highway.⁴⁴

Contracts with Owners or Occupants of Adjoining Lands.—Where highway agencies are about to lay a tile drain along any public highway, they may contract with the owners or occupants of adjoining lands to lay larger tile than necessary to drain the highway and permit the contracting landowner to connect to it. However, the adjoining landowner must pay the cost of enlarging the tile to carry off the additional draining from his land, and the drain must be a part of the highway drainage system.⁴⁵

Illinois statutes further provide that a landowner through or along whose land a public highway passes may, if he so desires, drain onto the right-of-way after notifying the proper highway authority and receiving written permission for any ditching, excavating, or other work he proposes to do within the limits of the highway. If, however, he constructs a ditch or drain within the limits of the highway right-of-way without first getting the required permission, his construction may subject him to a penalty under the Highway Code. Also, such private facilities may be considered an obstruction even if they only render the highway less safe, useful, or convenient to the public. If

Maintenance.—The Highway Code imposes on the respective highway authorities the duty to construct, maintain, and repair highways within their jurisdiction. 48 Whether the highway agency has the duty to maintain and repair drainage systems along the highway after adjoining landowners, with permission, have constructed private drains is not clear from the statute. However, it is not likely that drains constructed for private purposes in the highway right-of-way are included within the statutory definition of highways.

Relationship Between Highway Authority and Drainage District

Legislation has removed many of the limitations of the common law and made it possible for the majority of landowners within a given area to organize a drainage district to provide new drainage outlets, and to force the minority of landowners to join in the project. The relationship between such drainage districts and the public highway authorities is an extremely important aspect of any study of laws relating to highway and agricultural drainage.

Assessment of Highways.—The Illinois Drainage Code authorizes the inclusion of highways in the assessment rolls of a drainage district. However, the Illinois Constitution and the Revenue Act exempt the State government from taxation. The Constitution also prevents the State from ever being made a defendant in a court of law or equity. The courts have relied on these provisions in holding that State property is not subject to special assessment or taxation. The section of the Drainage Code providing for assessment of highways appears to be confined to the State's political subdivisions, such as counties and townships. The courts have held that cities, villages, and counties are mere agencies of the State through which local government is conveniently administered, and that the general assembly may authorize property held by one of its agencies to be burdened with a charge for the benefit of another of its agencies to the extent of benefits received. The benefits conferred on the lands by improved drainage must be shown, and the assessment must not exceed the benefits.

```
44 Tearney v. Smith, 86 Ill. 391 (1879).
45 Ill. Rev. Stat., Ch. 121, Sec. 9-107 (1963); Davis v. Commissioners of Highways, supra, note 21; Township of Whitley v. Linville, 174 Ill. 579, 51 N.E. 832 (1898).
46 Ill. Rev. Stat., Ch. 121, Sec. 9-117 (1963).
47 Nelson v. Fehd, 203 Ill. 120, 67 N.E. 828 (1903). See also Town of Hudson v. Carrithers, 201 Ill. App. 153 (1916).
48 Ill. Rev. Stat., Ch. 121, Sec. 4-405, 5-40, and 6-201.7 (1963).
49 G.W. Pickels. "Drainage and Flood Control Engineering," (New York, N.Y., 2nd 3d., 1941) p. 435.
50 Ill. Rev. Stat., Ch. 42, Sec. 5-2 (1963).
51 Ill. Const., Art. IX, Sec. 3 (1870); Ill. Rev. Stat., Ch. 120, Sec. 500 (5) (1963).
52 Ill. Const., Art. IV, Sec. 26 (1870).
53 In re City of Mt. Vernon, 147 Ill. 359, 35 N.E. 533 (1893).
54 Ill. Rev. Stat., Ch. 42, Sec. 3-23, 5-1 (1963).
```

Use of Highways by Drainage Districts.—Drainage commissioners are empowered by statute to use any part of a public highway for doing necessary work, provided such use will not permanently destroy or materially impair the highway for public use. ⁵⁵ Reported cases indicate it is permissible for a drainage district ditch to cut across a highway, but are not clear as to the right of a drainage district to drain into highway ditches or to construct a drain along the highway within the right-of-way. There are no Illinois cases on this question. In cases involving construction of a ditch within the highway right-of-way, the problem has not been whether the drainage district is within its rights with regard to the highway agency, but whether it has obtained the consent of the fee owner. ⁵⁶ However, in present-day land acquisition proceedings, the consent of a fee owner is not of great concern, inasmuch as the highway agency usually acquires the fee simple title. Therefore a more important point would seem to be whether the drainage district creates an obstruction by constructing a drain in the highway right-of-way. It is arguable that the rules covering an individual landowner also apply to the drainage district.

Bridges and Culverts.—Enactment of the Illinois Drainage Code in 1955 helped clarify who was responsible for maintaining bridges and culverts. The code stated that whenever a district drain crosses a public highway other than in the course of natural drainage, the district is liable to the highway agency for the cost of constructing any bridge or culvert made necessary by such crossing. The district is also liable for the cost of repairing and maintaining such bridge or culvert.⁵⁷

On the other hand, when a drain constructed in the course of natural drainage crosses a public highway, the highway agency must construct and maintain a bridge or culvert to serve the needs of the public for drainage of land within the natural watershed. This provision applies not only to needs at the time of construction, but for all future time.

However, if a district, by deepening, widening, or straightening a natural drain, or by changing the established grade, width, or alignment of a ditch, removes or threatens to remove a supporting member of the bridge, the district is liable to the highway agency for the cost of protecting or underpinning such supporting member.

REMEDIES

The remedies of damages and injunction are available to the Illinois landowner who is injured by disturbance of drainage. Where damages are sought recovery depends on proof of causation as in similar types of injury to real property. Jury trials are customary, and awards range from the traditional \$1 nominal damages for a technical invasion of property rights to substantial damages to compensate actual injury. Permanent damages are measured by the difference between fair market value before and after the injury. Where the cause of injury can be corrected, damages may be recovered only for injuries up to the time of the lawsuit. However, recurrence of injury creates a new cause of action. 59

Injunctive relief against highway agencies is normally allowed only with extreme caution due to its effect on essential public functions. The use of injunctions to deal with destructive injuries not capable of being compensated by damages is common among private parties. Among the situations which Illinois courts have allowed to be dealt with by injunctions are: prevention of diversion of water, removal of obstructions to natural flow of water, deposition of sewage, and unlawful connection to drainage facilities. 60

⁵⁵ Ill. Rev. Stat., Ch. 42, Sec. 4-14 (1963). ⁵⁶ Moore v. Gar Creek Drainage Dist., 266 Ill. 399, 107 N.E. 642 (1915). ⁵⁷ Ill. Rev. Stat., Ch. 42, Sec. 12-4 (1963).

⁵⁸ Cromwell v. Allen, 151 Ill. App. 404 (1909); Reinke v. Sanitary District of Chicago, 260 Ill. 380, 103 N.E. 236 (1913).

Mellor v. Pilgrim, 7 III. App. 306 (1880); Allen v. Michel, 38 III. App. 313 (1890).
 Dayton v. Drainage Commissioners, 128 III. 271, 21 N.E. 198 (1889); Town of Nameoki v. Buenger, 275 III. 423, 114 N.E. 129 (1916); Dierks v. Commissioners of Highways of Addison Township, 142 III. 197, 31 N.E. 496 (1892); King v. Manning, 305 III. 31, 136 N.E. 730 (1922).

TECHNIQUES FOR STUDY OF RELATED HIGHWAY AND AGRICULTURAL DRAINAGE LAWS

The cooperative project of the University of Illinois, the Illinois Division of Highways, and the U. S. Bureau of Public Roads for the study of highway and agricultural drainage laws offered a unique opportunity to obtain a comparative view of two bodies of law and of two related aspects—legal and engineering—of highway drainage problems. In the first phase of this project, now completed, the researcher's work was, to agreat extent, facilitated by the fact that lawyers have developed an effective methodology for the compilation and analysis of statute law and court decisions. Thus, identification and extraction of pertinent information from the total accumulated body of legal materials were accomplished satisfactorily through use of the reference aids normally relied on in legal research; namely, digests, citators, annotations, and index lists of legal periodicals.

In developing the research plan for a study of agricultural and highway drainage law, two problems not encountered in normal day-to-day legal research were recognized. One of these, the fact that laws relating to drainage had a long history, has already been noted. Because legislation and, to an even greater extent, case law on drainage rights, are found throughout the records of the nineteenth century, the researcher should be prepared to review a substantial amount of historical material in the process of compiling the present law. Much of this nineteenth century and early-twentieth century law has lost its validity for current conditions and practices of highway engineering and agricultural land use, but some still retains its vitality and some is pertinent for developing necessary historical perspectives for modern practices. Thus the researcher should plan to review the law relating to drainage in terms of its history and indicate its evolution as he selects for his compilation those statutes and cases which may be considered as currently controlling.

A second major problem encountered in developing a research plan concerns organization of the subject matter so that the research report will have comprehensive and coordinated coverage. In this matter the varying circumstances and legislative history of the States must be considered. However, it is submitted that many features of general applicability are present in the outline for organization of the research report for the first phase of the Illinois drainage law study. This outline is as follows:

- I. Objective of the Study
- II. Historical Review
 - A. Common Law Drainage
 - B. Theory of the Common Law Drainage Rules
 - C. Illinois Adoption of Natural Drainage Rule
 - D. Early Attempts at Collective
 Action
 - E. Statutory Enlargement of Natural Drainage Rule
 - F. Statutory Drainage Law
 - G. Summary
- III. Natural Drainage
 - A. Basic Principles of Natural Drainage
 - B. Legal Classification of Water
 - C. Watercourse
 - D. Water Movements
 - E. Acceleration
 - F. Diversion
 - G. Drainage of Ponded Areas
 - H. Obstruction
 - I. Overflow
 - J. Easement

- IV. Statutory Drainage
 - A. Highway Authority
 - B. Drainage Districts
 - C. Individual Landowner
 - D. Extension of Covered Drain Through Land of Others
 - E. Drains and Levees for Mutual Benefit
- V. Bridges and Culverts
 - A. Construction
 - B. Maintenance
 - C. Liabilities
 - D. Private Bridges and Culverts
- VI. Sewage and Pollution
 - A. Equitable Jurisdiction in Pollution Cases
 - B. Criminal Jurisdiction in Pollution Cases
- VII. Legal Remedies
 - A. Damages
 - B. Injunction
 - C. Limitations on Granting of Damages and Injunction
- VIII. References Cited
 - IX. Index

SUMMARY

Drainage laws provide a basis for determining the duties and responsibilities of all affected parties, including highway authorities. They also provide the necessary framework for carrying out various essential functions involving engineering, administering and financing drainage systems. They indicate where it is permissible to drain, under what conditions drainage may take place, what rights the landowner (including the highway authority) has, under what conditions the movement of water can be increased without causing liability, under what limitations water can be forced to flow in a direction other than natural flow, what rights group drainage enterprises have in relation to the highway authority, etc.

The laws relating to drainage and the principles and practices followed in the treatment of interrelated highway and agricultural drainage have developed over many years. Therefore the pertinent information is so dispersed that it is not always readily available. Consequently, a compilation of the laws, together with a resume of the practices that have been followed, is an important tool to provide the highway administrators with a basis for extablishing sound drainage policies. This information will also provide other interested groups with a better understanding of the drainage problems that are encountered and a greater appreciation of the need to find satisfactory solutions. If this information is properly used some of the conflict that has previously existed in this field should be resolved.

Common law differs from State to State. Inasmuch as Illinois has adopted the civil law rule, this report has followed this rule in outlining the rights and duties of the various parties. However, the problems encountered under this rule may give some insight into what to expect in other States that follow other rules. The statutory provisions are also those in effect in Illinois. Although they may not be directly applicable elsewhere, again they may offer some useful suggestions.