



Illinois Drainage Law Related to Highways and Adjacent Landowners

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16. Abstract The purpose of this document is to inform landowners, highway authorities, and other interested parties about general legal principles related to drainage and drainage improvements. This may allow them to recognize situations where their legal rights have been compromised or where their actions may jeopardize the legal rights of others. The scope of this document is generally limited to Illinois common and statutory drainage law. Some federal laws are discussed where they have a significant impact on drainage issues in Illinois. Likewise, a small number of case precedents from outside of Illinois are discussed where they may have an impact on drainage issues in Illinois. The scope of this document also is generally limited to drainage topics that are related in some manner to highway drainage, those that may impact highway drainage or design, or that fall under the regulatory umbrella of the Illinois Department of Transportation.					
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Note to readers: Words or terms in a red box are linked to definitions in the glossary. To see the definition, please click on the boxed word or term. To return to your reading location, hold down the ALT button on your keyboard and press the left arrow key.

Introduction

Background Information

One of the earliest documents describing Illinois' drainage law, titled "Engineering and Legal Aspects of Land Drainage in Illinois" published by the Illinois State Geological Survey (Pickels and Leonard, 1921). The purpose of that report was, in part "to lay before the legislature as clear a statement as possible of what the present drainage law of Illinois is; to suggest defects particularly in the present statute laws; and to suggest certain legislative improvements."

In 1950 and 1956 the University of Illinois College of Agriculture Extension Service published a pair of documents titled "Illinois Farm Drainage Law" (Hannah, 1950; Hannah, 1956). These documents provided background on Illinois drainage law, although their primary focus was for farm owners and commissioners of drainage districts. The 1956 manual reflects changes from a new drainage code adopted by Illinois in 1955.

In 1965 the University of Illinois Agricultural Experiment Station and Engineering Experiment Station published a report titled "Highway and Agricultural Drainage Practices" in cooperation with the State of Illinois Division of Highways and the U.S. Department of Commerce Bureau of Public Roads (Drablos and Jones, 1965). The purpose of that document was to describe "the resumé of the practices followed by highway authorities and others together with the compilation of the drainage laws," which could then "provide highway and agricultural administrators with an important tool to assist in the establishment of sound drainage policies."

In 1986 the Agricultural Research Station at the University of Illinois at Urbana-Champaign, in cooperation with the Illinois Department of Transportation and the Federal Highway Administration, produced a document titled "Illinois Drainage Laws: Rights and Responsibilities of Highway Authorities and Landowners Adjacent to Highways" (Uchtmann et al., 1986). This document, referred to herein as the 1986 manual, was intended "to provide an extensive treatment of Illinois drainage law as it applies to local, county, and state highway authorities and adjacent landowners in both agricultural and urban environments." Uchtmann et al. (1986) examined both common law (court decisions) and statutory law at the state and federal levels. It also examined administrative regulations affecting drainage. The 1986 manual was developed under a cooperative agreement between the Illinois Cooperative Highway Research Program and the Agricultural Experiment Station at the University of Illinois at Urbana-Champaign. As such, the 1986 manual emphasized drainage disputes that may arise in construction, maintenance, and improvement of roadways and the drainage of adjacent lands.

In 1997 the University of Illinois Cooperative Extension Service published a document titled "Illinois Drainage Law" referred to herein as the 1997 manual (Uchtmann and Gehris, 1997). The purpose of the 1997 manual was "to inform landowners, drainage district

commissioners, land improvement contractors, and other interested people of general legal principles related to drainage and the construction of drainage improvements.” The primary emphases of the 1997 manual were on drainage districts, on the impact of the wetlands provisions of the *Food Security Act of 1985* on farm drainage activities, and impacts of wetlands provisions in Section 404 of the *Clean Water Act* on permits for construction and fill in wetlands.

The 1986 and 1997 manuals provide an excellent review and summary of Illinois’ drainage laws at the times of their publication. The earlier publications (Pickels and Leonard, 1921; Hannah, 1956; Drablos and Jones, 1965), while providing interesting and useful background on Illinois’ drainage law, are superseded and summarized by the information in drainage manuals published in 1986 and 1997 and hence are not quoted extensively in this document.

The intent of this document is not to replace the earlier manuals but rather to augment them by describing public acts and court precedents from the period since the earlier manuals were published. At the same time, this document needs to provide sufficient background on Illinois’ drainage law prior to 1986 and 1997 to allow this to serve as a stand-alone reference for highway authorities and adjacent landowners related to drainage issues. Therefore, this document will quote extensively from the earlier manuals (Uchtmann et al., 1986; Uchtmann and Gehris, 1997) to provide a clear description of current Illinois drainage law.

Purpose and Scope of This Document

The purpose of this document is to inform landowners, highway authorities, and other interested parties about general legal principles related to drainage and drainage improvements. This may allow them to recognize situations where their legal rights have been compromised or where their actions may jeopardize the legal rights of others. However, a licensed attorney with expertise in drainage law should be consulted in any situation where legal rights may be affected. The scope of this document is generally limited to Illinois common and statutory drainage law. Some federal laws are discussed where they have a significant impact on drainage issues in Illinois. Likewise, a small number of case precedents from outside of Illinois are discussed where they may have an impact on drainage issues in Illinois. The scope of this document also is generally limited to drainage topics that are related in some manner to highway drainage, those that may impact highway drainage or design, or that fall under the regulatory umbrella of the Illinois Department of Transportation.

Illinois Laws on Drainage

Surface-water drainage law in the United States generally can be described in three categories: the *Common Enemy rule*, the *Law of Natural Drainage* (sometimes referred to as the *Civil Law rule*), and the *Reasonable Use rule*. Illinois drainage law is based on the *Law of Natural Drainage* but has been modified to consider *Reasonable Use* as described below. The following is an overview of the three historical drainage-law categories.

Under the *Common Enemy rule*, landowners can treat surface waters as a common enemy, and each landowner has the right to protect against surface water without liability for injury to adjoining properties. Similarly, adjoining landowners have the right to take defensive actions against water flowing onto their lands. In 1940, 21 states and the District of Columbia employed the *Common Enemy rule*¹, whereas by 1990 only 13 states² continued to employ the *Common Enemy doctrine* and two (Alabama and Kansas) retain it in urban drainage disputes (Cole, 1989).

The *Law of Natural Drainage (Civil Law rule)* dictates that the “natural flow” of the water is controlling. The servient or lower landowner generally must accept what water comes to it and cannot alter the flow away from the dominant or higher landowner. The dominant landowner has a natural easement to allow surface water to flow naturally onto the servient land, however, he does not have an unlimited right to increase the rate or amount of surface-water runoff flowing onto the land of the servient landowner. The *Law of Natural Drainage* is often quoted from *Gormley v. Sanford* (1869):

As water must flow, and some rule in regard to it must be established where land is held under the artificial titles created by human law, there can clearly be no other rule at once so equitable and so easy of application as that which enforces natural laws. There is no surprise or hardship in this, for each successive owner takes with whatever advantages or inconveniences nature has stamped upon his land.

Cole (1989) listed 14 states³ that “exclusively employ some form of the natural flow theory.” This list includes Illinois; however, as discussed below, Illinois drainage law now incorporates aspects of the *Reasonable Use rule*. Cole (1989) also lists three other states (Alabama, Kansas, and South Dakota) that “employ the natural flow theory to resolve drainage disputes in rural areas.”

The *Reasonable Use rule* is a modification of the *Civil Law rule* where the reasonableness of the parties’ conduct is determined considering factors such as the gravity and foreseeability of the harm, the motive, and utility of the actor’s conduct. When both parties’ actions are reasonable, the liability falls on the party that altered the natural flow. In 1940 only Minnesota and New Hampshire employed the *Reasonable Use rule*. Cole (1989) lists 16

¹ States following *Common Enemy rule* in 1940: Arizona, Arkansas, Connecticut, District of Columbia, Indiana, Maine, Massachusetts, Mississippi, Missouri, Montana, Nebraska, New Jersey, New Mexico, New York, North Dakota, Oklahoma, Rhode Island, South Carolina, Virginia, Washington, West Virginia, and Wisconsin.

² States following *Common Enemy rule* in 1990: Arizona, Arkansas, Indiana, Maine, Missouri, Montana, Nebraska, New York, Oklahoma, South Carolina, Virginia, Washington, and the District of Columbia.

³ States following *Law of Natural Drainage* in 1990: Colorado, Georgia, Idaho, Illinois, Iowa, Louisiana, Michigan, New Mexico, Oregon, Pennsylvania, Tennessee, Texas, Vermont, and West Virginia.

additional states⁴ that have “abandoned one of the old Property-based doctrines in favor of the Tort-based [*Reasonable Use*] rule.” In addition, Cole (1989) states that “South Dakota applies the reasonable use rule to all drainage disputes arising in urban areas.”

Illinois drainage law comprises *civil law* (also called *common law*) principles that have developed over the years and are embodied in court decisions as well as *statutory law*, which are statutes and regulations that clarify, modify, or enlarge the civil law principles. The following section describes the common and statutory laws that affect drainage in Illinois. Illinois operates under the *Law of Natural Drainage* as initially elucidated by the courts in *Gillham v. Madison County R.R. Co.* (1869) as “[t]his court ... adopted the rule of the civil law that the owner of a servient heritage has no right by embankments or other artificial means to obstruct the natural flow of the surface water from the dominant heritage and thus throw it back upon the latter.”

The origins of Illinois statutory law related to drainage can be traced to the Illinois Constitution of 1870, which included the following provision: “The General Assembly may pass laws permitting the owners or occupants of lands to construct drains and ditches for agricultural and sanitary purposes, across the lands of others.” This provision was amended in 1878 to read, “The General

Assembly may pass laws permitting the owners of lands to construct drains, ditches and levees for agricultural, sanitary or mining purposes, across the lands of others, and provide for the organization of drainage districts and vest the corporate authorities thereof, with power to construct and maintain levees, drains and ditches, and to keep in repair all drains, ditches and levees heretofore constructed under the laws of this State, by special assessments upon the property benefited thereby” (Hannah, 1960).



⁴ States that employ the *Reasonable Use rule* as of 1990: Alaska, Connecticut, Delaware, Hawaii, Kentucky, Maryland, Massachusetts, Mississippi, Nevada, New Jersey, North Carolina, North Dakota, Ohio, Rhode Island, Utah, and Wisconsin.

Underlying Principle: The Law of Natural Drainage

Introduction and Scope

The basic principle guiding drainage law in Illinois is referred to as the *Law of Natural Drainage*. This principle was given by Uchtmann et al. (1986) as:

Landowners, including highway authorities, have a right to drain water away as it would in a state of nature. Lower landowners, including highway authorities, have a responsibility to accept water flowing naturally onto or through their lands and have no right to interfere with such natural drainage.

The Basic Principle of Natural Drainage

The *Law of Natural Drainage* recognizes natural differences in levels of lands. The basic principle is that landowners have the right to take whatever advantages or the responsibility to accept whatever inconveniences of drainage that nature places upon their land. These advantages or inconveniences depend on the elevation of one's property in relation to the land around it.

The principles of natural drainage apply when one piece of land is at a higher elevation than the adjoining land, allowing water to flow from the higher (dominant) to the lower (servient) estate. One of the most important principles of Illinois drainage law is that the owners of the lower ground are bound to receive surface water that naturally flows onto it from higher ground. The right of the dominant estate owner to drain on and over the servient estate is based on the principle that nature has ordained such drainage. According to Farnham (1904),

Thus, he who has the upper grounds cannot change the course of the waters, either by turning it some other way, or rendering it more rapid, or making any other change in it to the prejudice of the owner of the lower grounds. Neither can he who has the lower estate do anything that may hinder his grounds from receiving the water which they ought to receive, and that in the manner which has been regulated.

The idea of natural flows means that the owner of dominant land could not construct channels or drains that divert the flow of water from one watershed to another or deposit the water onto servient land that in the natural course of drainage had not previously received that water (*Anderson v. Henderson*, 1888; *Young v. Commissioners of Highways*, 1890; *Graham v. Keene*, 1892). Furthermore, the owner of dominant land was not permitted to collect waters that in the natural course of drainage would flow through several channels onto servient land into a single channel (*Daum v. Cooper*, 1904). Additionally, the owner of servient land is not permitted to erect structures such as dams, levees, or embankments on his or her land that would prevent or deter the natural flow of water from the dominant to servient land (*Bradbury v. Vandalia Levy and Drainage District*, 1908; *Town of Bois D'Arc v. Conderly*, 1912; *Deterding v. Central Illinois Public Service Co.*, 1924; *Gough v. Goble*, 1954; *Geis v. Rohrer*, 1957).

Overland Flow (Diffused Surface Waters) and Flow in Watercourses

Historically, one significant question that has been debated in the courts is whether the *Law of Natural Drainage* applies to *diffused surface waters* (also called *overland flow*) or only to water flowing in a defined channel. According to the French Civil Code of 1804 (Code Napoleon) and the Louisiana Civil Code, which are the precursors of Illinois drainage law, lower lands of one proprietor are subservient to the higher lands of another for the drainage of surface and percolating water. Farnham (1904) expressed the opinion that “there is no such servitude [for the drainage of surface and percolating water] unless there is a regulated course in which the water is flowing.” Despite Farnham’s objection, Illinois drainage law follows the precedent of the French and Louisiana Civil Codes and considers both diffused flows and flow in watercourses as covered under the *Law of Natural Drainage* (Uchtmann et al. 1986).



The Good Husbandry Exception

The *Law of Natural Drainage* relates to water flowing naturally. The *Good Husbandry Exception* recognizes that activities that increase the productivity of land also tend to increase the flow of water from that land. To facilitate development of agricultural land, the Illinois Supreme Court decision in *Peck v. Herrington* (1884) developed the *Good Husbandry Exception* as:

The ponds which Peck proposed to drain were merely the collection of surface water from rain and melting snow, which fell upon the land. Suppose Peck, instead of tile-draining the ponds, had filled them up with dirt. This would have caused the water which before accumulated in the ponds, to flow down the channel ... upon the land of Herrington. It will not be pretended that in such a case he would have violated any rule of law. ... If it be true that the water which would naturally accumulate in these ponds could be cast upon Herrington’s land by filling them up, upon what principle can the owner of the dominant heritage be denied the right to do the same thing in another way? If the water which would naturally accumulate in those ponds can be turned upon Herrington’s land by filling them up, we perceive no reason why the water may not be drawn off by tile-draining, if good husbandry required it.

In other words, the owner of the dominant estate should not be required to leave his or her land marshy and untillable simply because draining the land would cause damage to the servient estate. However, the Supreme Court also held that the right to drain the dominant estate is subject to a quantitative limit. Prior to the decision in *Peck v. Herrington* (1884), in

Hicks v. Silliman (1879) the court found that a large pond could not be drained to the destruction of the usefulness of the servient land.

Uchtmann et al. (1986) state the *Good Husbandry Exception* to the *Law of Natural Drainage* as follows:

In the interests of good husbandry, the owners of dominant estates may construct open or covered drains on their own land for agricultural purposes, even though the flow of drainage water may be increased in the watercourses that carry the waters from the dominant to the servient estates. The owners of the dominant estates, however, must discharge the waters at the points where the waters would have entered the servient estates naturally. And they generally must not cut or tile through divides so as to discharge upon the servient estates waters that originated from different watersheds. Large drainage improvements may require a permit from the Illinois Department of Transportation and the Corps of Engineers. The amount and manner of water discharged upon the lower owner may be subject to a “reasonableness” limitation.

While the *Good Husbandry Exception* was originally established related to development of agricultural land, court decisions over the years have expanded to any legitimate farming operation (Leonard, 1916) and even strictly non-agricultural development (e.g., *Speck v. Peeler*, 1919; *City of Peru v. City of LaSalle*, 1970) as long as the resulting drainage meets a “reasonableness limitation.” Between 1884, the year the good husbandry doctrine was established, and 1974 the Illinois Supreme Court did not find a single increase on the servient estate, other than situations in which the dominant owner diverted water from another watershed that was sufficient to permit recovery of damages (Uchtmann et al. 1986).

Non-Agricultural Drainage

Under the civil rule, the owner of a servient estate is not obligated to receive surface water in different quantities or at different times than would naturally come on his or her land. As mentioned earlier, the *Good Husbandry Exception* was originally related to development of agricultural land and over the years expanded to any farming operation. In urban areas, however, a high population density along with a large number of valuable structures on small parcels of land increases the potential for high monetary damages in drainage cases. The rules developed to meet simpler circumstances involving agricultural drainage generally proved insufficient to weigh the complexities of urban development.



Reasonable Use Limitation (Land Development)

Each possessor is legally privileged to make a reasonable use of his land, even though the flow of surface water is altered thereby and causes some harm to others, but liability is incurred when his harmful interference with the flow of surface waters is unreasonable and causes substantial damage. . . . Reasonableness is a question of fact to be determined in each case by weighing the gravity of the harm to the plaintiff against the utility of the conduct of the defendant. (Pendergrast v. Aiken, 1977)

In 1974 the Illinois Supreme Court expanded the policy of reasonable use to non-agricultural drainage. In *Templeton v. Huss* (1974) the servient estate sued the dominant estate for land development that allegedly increased the water flow from the upper land to the lower in an unreasonable manner. In this case the Illinois Supreme Court held that a policy of reasonable use is to be applied to the issue of the liability of the owner of higher land for injury to property caused by the increased flow of surface water onto lower land when the upper owner has interfered with the natural drainage pattern of surface waters through construction of a residential subdivision. Prior to *Templeton v. Huss* (1974), most drainage cases in Illinois involved water draining across the ground surface. *Templeton v. Huss* (1974) is the first time the court considered interference with natural seepage as the basis for liability for increasing the amount of water drained. The Supreme Court found that just as the *Good Husbandry Exception* prevented unreasonable agricultural development, so also prevented was substantial alteration of natural drainage by “surface and subsurface changes, which interfere with the natural seepage of water into the soil of the dominant estate.” In their decision, the Supreme Court stated:

The question which must be confronted is whether the increased flow of surface waters from the land of the defendants to that of the plaintiff, regardless of whether it was caused by diversion from another watershed, the installation of septic tanks, the grading and paving of streets, or the construction of houses, basements and appurtenances, was beyond a range consistent with the policy of reasonableness of use which led initially to the good-husbandry exception. (Templeton v. Huss, 1974)

Fry and Fry (1975) state that “in concluding *Huss*, the Supreme Court stated, regardless whether the increased flow was caused by septic tank installation, paving, home construction, or diversion from another watershed, the issue of liability depended on whether the conduct was reasonable.” By including diversion from another watershed in this list, the court “declared a reasonable use rule applicable to urban development which interferes with natural seepage or which diverts the natural course of drainage” (Fry and Fry, 1975). Uchtmann et al. (1986) discuss that while *Templeton v. Huss* (1974) established the *Reasonable Use Limitation*, the court’s meaning was not clear and that no test of “reasonableness” was defined. Hence, at the time of the 1986 drainage manual, the implications of *Templeton v. Huss* (1974) were still evolving through the courts and regulations governing storm drainage system and detention design. In *Callahan v. Rickey* (1981), the court decision shows that good husbandry criteria still apply to agricultural settings post-*Templeton v. Huss*, implying that the owner of a dominant estate may still have a virtually

unlimited right to increase the drainage from agricultural land. *Callahan v. Rickey* (1981) also clearly demonstrates that the owner of the servient estate has the burden of proving acts were inconsistent with reasonable use. However, the following year the same appellate court district in *Starceovich v. City of Farmington* (1982) dictated that trial courts should consider limitations on reasonable use by ruling that the plaintiff stated a sufficient claim, which alleged the defendant had a duty not to make a change resulting in an “unreasonable use.” The court found “that the ‘unreasonableness’ to be pleaded and proved is not in the defendant’s use of the dominant estate, but rather in the interference with drainage through natural flow and seepage that defendant’s changes cause upon the plaintiff’s servient estate.” The court stated that “Plaintiff clearly alleges defendant’s duty not to unreasonably increase the quantity and force of waters cast upon his land” and “specific changes made on the dominant estate which he alleges constitute breaches of that duty.” Hence the court found that interference with natural flow and seepage that interferes with drainage onto a servient estate may constitute an unreasonable use.

A significant case subsequent to the 1986 drainage manual is found in *Bollweg v. Richard Marker Associates, Inc.* (2004). In 2001, defendant purchased 129 acres of land north of 12 acres owned by the plaintiff. Plaintiff’s land was located between defendant’s land and the Fox River. Defendant’s land was annexed into the City of Yorkville and planned for development of 262 homes. Prior to defendant’s development, approximately 60 acres drained across plaintiff’s land. During development, most of field tiles in defendant’s land were destroyed and detention ponds were built to store water and release it at controlled rate to plaintiff’s land. Subsequent to development, approximately 80 acres drained to plaintiff’s land. The defendant argued that they used sound engineering practices and complied with Yorkville’s stormwater ordinance. The plaintiff showed that the volume discharged increased by a minimum of 12%. Importantly, the appellate court rejected the defendant’s argument, stating that this was an issue of state law as opposed to local government rules (Kinnally, 2005). This finding is significant for drainage of transportation systems and land development because an approved stormwater drainage system that complies with stormwater management policy or ordinance may still be found in violation of reasonable use limitations. Furthermore, in *Bollweg v. Richard Marker Associates, Inc.* (2004), the court stated that “the potential for economic loss resulting from an increase in the flow of water onto the servient estate should not be disregarded. ... Likewise, the potential benefits resulting from developing real estate in a dominant position should not be ignored. Consequently, the benefit to the dominant estate should be balanced against the harm caused to the servient estate.”

In addition, in *Bollweg v. Richard Marker Associates, Inc.* (2004) the court reiterated that pursuant to the “good husbandry” exception, the owner of a dominant estate may increase or alter the flow of water upon a servient estate if it is required for the proper husbandry or reasonable development of the dominant estate. Even with this exception, the dominant estate’s right to increase the rate or amount of runoff onto the servient estate is not unlimited.

The court upheld the trial court's decision to issue an injunction preventing the defendant from:

1. *continuing the development until it removes the unnatural accumulations of water or otherwise redesigns the storm water management system to prevent such an unnatural accumulation;*
2. *using the preexisting agricultural drainage tile as a discharge outlet for the southeast basin;*
3. *draining the southeast basin through any unnatural method, including restrictor pipes, that would change the predevelopment flow of water across plaintiff's property; and*
4. *from causing unnaturally accumulating water from the southwest basin to flow across plaintiff's property.*

Another recent case impacting non-agricultural drainage is *Shulte v. Flowers* (2013). In that case the defendant altered a 4.5-acre plot by removing some soil, compacting the remaining soil, and placing gravel to replace the removed soil. A 48- by 52-foot area was raised 1 foot and a building erected on that area. Defendant also widened and deepened a ditch on his property to increase water retention. The plaintiff owned the lowest parcel in the neighborhood (servient to all other parcels) and has "always been subject to flooding because all other parcels drain to it." Plaintiff claimed that "after defendant's alteration of his land, the flooding became considerably worse." Evidence showed three additional factors that might have contributed to increased flooding:

1. greater than average rainfall for the three years preceding the trial;
2. other nearby properties also contributed to flooding;
3. a partial obstruction of the storm sewer pipe along southern boundary of plaintiff's property.

The court found in favor of the defendants, stating that "Plaintiffs had the burden of proving that defendant's development of his land was unreasonable in the burdens it placed on plaintiffs' land ... and a reasonable trier of fact could conclude that plaintiffs failed to carry that burden." Hence, while the principle that the owner of higher ground incurs liability for damages caused to the lower ground by an increase in the flow of surface water, to date the burden on liability is directly tied to an unreasonable development of the higher ground.

In *Dovin v. Winfield Township* (1987) the court stated, "Consequently ... we conclude that the appropriate method of determining whether there is a compensable injury due to an increased flow of water is to determine whether such increased flow is reasonable by balancing the benefit to the dominant estate against the harm done to the servient estate."

In summary, the *Reasonable Use Limitation* says that a landowner is legally privileged to make a reasonable use of his or her land, even though the resulting alteration of the flow of surface water may cause some harm to others. The landowner is liable for the harm to the extent

that the harm is tied to an unreasonable development of the higher land. The burden of proving that the land development was unreasonable falls on the plaintiff. Determining whether the development was reasonable is a factual analysis done on a case-by-case basis that considers both the benefit to the dominant estate and the harm to the servient estate.

Easements

An easement is an interest in land owned by another person that allows the easement owner to use or control the other's land, or an area above or below it, for special purposes consistent with the other's general property rights; for example, the right to have water flow across a neighbor's land. Drainage easements can be created by nature, by agreement, by condemnation, or by prescription. Whoever has an easement in or over another's land has the right to do all such things as are necessary to preserve the easement; that is, he may keep it in repair and has the right of access to make the necessary repairs.

Natural easements are the natural channels and drainage that are addressed in the *Law of Natural Drainage*. Easements can be obtained by agreement or deed between landowners.

Certain government authorities (e.g., highway authorities, drainage districts, municipalities) can obtain easements through the exercise of eminent domain.

When such rights are condemned, just compensation

must be paid. A prescriptive easement is acquired when a landowner is harmed by another owner and fails to enforce his or her rights for a prescribed period. These are sometimes referred to as "prescriptive by use easements" and allow the continuation of a pre-existing use even though that right is not expressed in a grant. In such a case, the harmful practice may itself become a right. Uchtmann et al. (1986) state, "For example, if an owner of higher ground fails to take action when the owner of lower land dams or obstructs the flow of surface water, the lower landowner may acquire an easement to maintain the dam by prescriptive use. ... Likewise, the owner of lower land may acquire a right to have no surface water drain on his or her land from higher ground when the water has been diverted from the lower ground for the prescriptive period. By this same process, the higher landowner may acquire the right to change the place where his or her surface water enters lower ground or to maintain other artificial conditions not permitted under the rules of natural drainage."

For a prescriptive easement to arise, the use must generally have been:

1. adverse;



2. uninterrupted for a period of at least 20 years, or when land is used as a public highway, 15 years;
3. exclusive;
4. continuous; and
5. under a claim of right.

Acquisition of such a right is a factual one, not easily determined. The scope of a prescriptive easement is limited to the dominant landowner's use of the property. Included within the scope of the easement are those actions necessary to protect that use. For example, it has been held that a drainage ditch essential to make a highway easement effective is included within a prescriptive highway easement, provided it is maintained and is used by the public.

Uchtmann et al. (1986) point out that prescriptive easements may extend beyond the original parties that created them. As an example, Uchtmann et al. (1986) cite *Broadwell Special Drainage District v. Lawrence* (1907), in which the owner of a dominant estate diverted water from its natural course by constructing an artificial channel. Water flowed through it continuously for more than 20 years. The court held that other proprietors who benefited thereby had an easement by prescription in the new watercourse and that the water could not be restored to its original course. This rule applies even though the affected landowners are not contiguous.

A significant case involving drainage easements and highway drainage is *Hahn v. County of Kane* (2012). In 2005 Hahn entered into a sales agreement with Kane County for the following: "(1) a strip of land in fee simple for purposes of widening and improving Randall Road; (2) an exclusive and permanent easement on approximately 3.2 acres of property at the north end of the Hahn property for "storm water drainage, retention, detention and conveyance, and all things appurtenant thereto." In 2006 the county entered into an intergovernmental agreement with the City of St. Charles for road improvements that required the county to expand stormwater detention on the Hahn property "if adjacent development desires to manage stormwater with a facility at the location of the afore described stormwater management facility." In May 2010 the county issued permits to expand stormwater detention, and the city issued permits for private development that would utilize additional stormwater capacity. The appellate court found that "[t]he owner of an easement cannot make a material alteration to the character of the easement if the alteration would place a greater burden on the servient estate or would interfere with the use and enjoyment of the servient estate." Further, the court found "an easement may not be extended by the owner of the dominant estate to accommodate other lands for which the easement was not originally intended. *Beloit Foundry Co.*, 28 Ill.2d at 388, 192 N.E.2d 384; *McCann*, 242 Ill.App.3d at 255, 182 Ill. Dec. 542, 609 N.E.2d 1076. Clearly, the grant of an easement does not contemplate an open invitation to 'adjacent development' to divert stormwater onto the easement property. No one but an owner of land can create an easement over it. ... However, even a dominant estate is not free to invite whomever it wishes to join in the use of an easement just because there is room to do so." While the county had an easement to construct stormwater

detention on Hahn's property, extending it by intergovernmental agreement to the City of St. Charles and subsequently to provide stormwater detention for a nearby developer was outside the agreement that created the original easement and therefore was not legal.

A recent (March 2014) U.S. Supreme Court decision of significance to transportation and easements, although not directly related to drainage, is *Marvin M. Brandt Revocable Trust v. United States*. In an 8–1 decision, the court decided that the government did not retain a right-of-way across private land based on a now-abandoned railroad easement. In the case in question, when giving title to the land in 1976, the patent for the land was granted “subject to those rights for railroad purposes as have been granted to the Laramie Hahn's Peak and Pacific Railway Company and its successors or assigns.” The railway went through several changes of ownership, ending in 1996, when the Wyoming and Colorado Railroad notified the Surface Transportation Board of its intent to abandon the right-of-way. After receiving approval, abandonment was completed in 2004. In 2006 the U.S. government initiated action to quiet title of the right-of-way to the United States. In the opinion of the court, Chief Justice Roberts wrote:

An easement is a nonpossessory right to enter and use land in the possession of another and the possessor not to interfere with the uses authorized by the easement. ... easements may be unilaterally terminated by abandonment, leaving the servient owner with a possessory estate unencumbered by the servitude. ... In other words, if the beneficiary of the easement abandons it, the easement disappears and the landowner resumes his full and unencumbered interest in the land. ... Now the Government argues that such a right of way is tantamount to a limited fee with an implied revisionary interest. We decline to endorse such a stark change in position, especially given 'the special need for certainty and predictability where land titles are concerned.'

Hodges' (2014) commentary on this case cites both the *takings clause* of the Fifth Amendment and Justice Oliver Wendell Holmes' 1922 warning in *Pennsylvania Coal Co. v. Mahon* “that a strong public desire to improve the public condition is not enough to warrant achieving the desire by a shorter cut than the constitutional way of paying for the change.” The *Pennsylvania Coal* case upholds the certainty and predictability of land titles and upholds that the government must pay just compensation when taking private land.

Maintenance of Natural Drains Across Servient Lands

Owners of servient estates may not intentionally obstruct watercourses flowing across their lands, but they have no duty to keep them clear of naturally occurring brush, silt, or debris. Owners of dominant estates, because of their drainage easements, have rights to go upon the servient estates and make repairs as long as they do not cause unnecessary injury to the servient estate. Access permits are required before doing any work on a highway right-of-way. (Uchtmann et al., 1986)

Therefore, in Illinois, the owner of a drainage easement has the right to keep it in repair. This right generally places no obligation on the owner of the servient land through which the

easement passes to make such repairs or maintain the drainage. The owner of the easement has the right to enter the servient estate to keep the drain in repair, provided the repair can be accomplished without unnecessary injury to the land. The Illinois Supreme Court has stated that:

As a general proposition, whoever has an easement in or over another's land has the right to do all such things as are necessary to preserve the easement; that is, he may keep it in repair and has the right of access to make the necessary repairs. ... It would seem, therefore, that the common law annexes to the easement of a drain in another's land the right to go upon such land and clean out or repair such drain without doing unnecessary injury to the land. (Wessels v. Colebank, 1898)

Uchtmann et al. (1986) discuss the rights of owners to maintain easements, including those across highway rights-of-way, saying:

The court has further mentioned that such an interpretation is consistent with fundamental concepts respecting property rights: property owners themselves are expected to protect those rights, while others are expected not to invade them (Savoie v. Town of Bourbonnais, 1950). This rule applies to all drainage easements, whether created by nature, by agreement, by condemnation, or by prescription.

This right of self-help probably does not extend to owners of dominant estates who have drainage easements across highway rights-of-way, because it will be difficult for these persons to make repairs in the right-of-way without endangering public use of the highway. However, highway authorities will issue permits in many instances to allow private landowners to work in the highway right-of-way, for instance to repair cross-drainage structures.

Mutual Drain

Section 2-10 of the *Illinois Drainage Code* (70 ILCS 605/2-10) addresses drains and levees for the mutual benefit of the members of the drainage system. The code protects the rights of drainage between adjoining land holders and also protects drains continuous in their character and purpose for the mutual benefit of the land affected whether they had been constructed by license or consent. "Drains and levees deemed to be for the mutual benefit of the lands connected or protected shall constitute a perpetual easement on such lands and shall not be filled, obstructed, breached or impaired in any way without the consent of the owners of all such lands."

In *Bollweg v. Richard Marker Associates, Inc.* (2004), defendant claimed the right to enter plaintiff's land to maintain a tile that was constructed as part of a mutual drain. However, in development of his land, defendant destroyed most of the tiles on his land connecting to the tile that he wished to maintain. The court found that:

having changed the character of the easement, defendant cannot now claim an easement pursuant to the Code. An easement once definitely settled and located cannot be changed by either party without the consent of the other where the change

results in a substitution of a servitude different from that which existed previously. By removing the tiles and converting the downstream tile into the outlet for a stormwater detention pond, the defendant materially altered the character of the easement.

The court found that the defendant's connection to the tile was not illegal but that the defendant no longer had an easement. In considering the legality, the court cited *Callahan v. Rickey* (1981), stating, "[t]he owner of a dominant estate does not have an unlimited right to increase the rate or amount of surface-water runoff flowing onto the land of a servient estate."

Highway Drainage

A highway authority is subject to the natural drainage law. Through the power of eminent domain, however, a highway authority may modify its natural drainage rights. In addition, a highway authority may contract with landowners to alter its drainage obligations. The highway code makes it illegal to obstruct or injure a highway and requires a permit to do any work in a right-of-way. In general, a highway authority is liable for maintenance and repair of ditches in a right-of-way that benefits the highway. (Uchtmann et al., 1986)

The interaction of the drainage features of highways with those of the adjoining lands that they cross is governed by the same rules applying to private land. Generally, a landowner may obtain an easement to drain his or her land outside of the course of natural drainage by deed or prescription only. However, by statute (*Illinois Highway Code* 605 ILCS 5, Section 4-502, 5-802, 6-802), highway authorities also may obtain drainage rights through the use of eminent domain.

Uchtmann et al. (1986) point out that the wording of the statute leads to the interpretation, "that the statutory method of acquiring the land must be preceded by an offer of just compensation to the owner and his or her refusal to accept that offer." Uchtmann et al. (1986) further point out that the question of necessity is determined by the highway authorities acting in their official capacity and is beyond the control and jurisdiction of the courts. Additionally, the statutory provision is in no way limited by the natural flow of water. The court has expressly stated that the provision is intended to enable highway authorities to convey water from the highway in a direction other than its natural course. Therefore, a highway authority can divert water as long as it has acquired the necessary easements from affected parties.

Section 9-107 of the *Illinois Highway Code* (605 ILCS 5/9-107) states that "[w]henver the highway authorities are about to lay a tile drain along any public highway the highway authorities may contract with the owners or occupants of adjoining lands to lay larger tile than would be necessary to drain the highway, and permit connection therewith by such contracting parties to drain their lands." Christopher (2002) points out that "[t]his section only covers voluntary cooperative arrangements between highway authorities and their

neighbors. It does not create any obligation for a highway authority to contract with adjacent owners and does not obligate the highway authority to maintain all tiles which cross or run parallel to the highway right of way. It also does not create any obligation for the highway authority to maintain tiles off the highway right of way which do not benefit the highway.”

Section 9-113 of the *Illinois Highway Code* (605 ILCS 5/) provides that construction of ditches or drains along a highway by any “public utility company, municipal corporation, or other public or private corporation, association, or person” may be undertaken only after first obtaining the written consent of the appropriate highway authority. Construction of drainage facilities by parties other than the highway authority that do not benefit the highway are outside the scope of the highway authority’s highway easement across the land of others. In *Benno v. Central Lake County Joint Action Water Agency*, (1993) the appellate court found that an easement that belongs to DOT for highway purposes “may not be extended to accommodate other uses.” While it is likely that government entities, such as drainage districts or municipalities, which the legislature has vested with the power of eminent domain, could use Section 9-113 to construct a ditch in a highway easement, an individual landowner wishing to drain his or her own land may be prohibited from using the highway easement to do so. In cases where the highway authority has granted a landowner permission to construct a ditch along a highway, the courts have held that permission for a private individual to dig a ditch along the highway is not a grant of a perpetual right for the individual to drain his or her land through this ditch because the authorities cannot grant away the use of the right-of-way of the public highway to a private person. Similarly, as was discussed earlier regarding the case of *Hahn v. Kane County* (2012), because the highway authorities own only an easement in the highway land, and the fee remains in the adjoining owner, highway authorities have no right to grant abutting landowners the privilege of digging a ditch along the highway fronting the property of another landowner: it would impose an additional burden and servitude on such land that is inconsistent with the limited rights of the public in the highway. Uchtman et al. (1986) state “that without the power of eminent domain, a party can only construct an open ditch along a highway by securing the permission of all contiguous landowners whose property is affected by the construction.”

Section 9-101.1 of the *Illinois Highway Code* (605 ILCS 5/9-101.1) provides in part as follows:

Whenever the proper highway authority is about to construct or improve the drainage structures of a State highway ... the highway authority shall meet and consult with the authorities of any municipality adjacent to or through which such highway or road runs. The purpose of such meetings is to work out an agreement with such municipality and all other interested agencies and units of local government as to the extent of such drainage construction or improvement.

Christopher (2002) states that “[t]he key words here are meet, consult, and agree. This means that neither side tells the other what to do. Both sides need to do what it takes to come to an agreement.”

Maintenance and Repair of Highway Drainage

While the *Illinois Highway Code* (605 ILCS 5/) imposes on the highway authorities the duty to “construct, maintain, and repair the highways” within their jurisdiction, drainage systems are not expressly listed. In instances when adjoining owners have connected a drain to an existing highway drain or ditch under Section 9-107, the highway is still benefited by it. Thus it is likely the highway authority will be responsible for the maintenance costs. However, when a landowner retains the fee, obtains a permit, and constructs a ditch in the highway right-of-way for a private purpose, where the highway is not benefited by such a drain, the highway authority has no responsibility to maintain and repair the drain.

Section 9-111.1 of the *Illinois Highway Code* (605 ILCS 5/9-111.1) requires that “[t]he highway authorities shall from time to time inspect the bridges and culverts on the public highways and streets under their respective jurisdictions which span streams and watercourses and shall remove driftwood and other materials accumulated within the right of way at such structures which obstruct the free flow of either low or high water.”

Section 9-115.1 of the *Illinois Highway Code* (605 ILCS 5/9-115.1) states that “[i]t is unlawful for any person to construct or cause to be constructed any drainage facility for the purpose of the detention or retention of water within a distance of 10 feet plus one and one-half times the depth of any drainage facility adjacent to the right-of-way of any public highway without the written permission of the highway authority having jurisdiction over the public highway.” Section 9-115.1 also states, “It is unlawful for any person to construct or cause to be constructed any earthen berm such that the toe of such berm will be nearer than 10 feet to the right-of-way of any public highway without the written permission of the highway authority having jurisdiction over the public highway.” Christopher (2002) states, “This provision was inserted to prevent the construction of detention ponds and other drainage facilities at the edge of the right of way. These facilities can make future widening of the highway much more problematic.”

Section 9-117 of the *Illinois Highway Code* (605 ILCS 5/9-117.1) states:

If any person injures or obstructs a public highway by ... plowing or digging any ditch or other opening thereon, or by turning a current of water so as to saturate, wash or damage the same, or by plowing in or across or on the slopes of the side gutters or ditches, or by placing any material in such ditches, or in any way interfering with the free flow of water therein, ... without the permission of the highway authority having jurisdiction over such highway, he shall be guilty of a petty offense. ... However, this section shall not apply to any person who ... through or along whose land a public highway may pass, who shall desire to drain his land, and who shall give due notice to the proper highway authority of such intention, and who shall first secure from such highway authority written permission for any work, ditching or excavating he proposes to do within the limits of the highway.

Bridges and Culverts

Section 12-4 of the *Illinois Drainage Code* (70 ILCS 605/12-4) states:

Whenever a drainage district drain crosses an existing air-strip or airplane landing field ... or an existing public highway or an existing railroad other than in the course of natural drainage, the drainage district is liable to the highway authority or the railroad, or the political subdivision or municipality which owns the air-strip or airplane landing field, for the cost of constructing any bridge or culvert made necessary by such crossing and shall thereafter be liable to the highway authority or railroad, or the political subdivision or municipality which owns the air-strip or airplane landing field, for the cost of repairing and maintaining such a bridge or culvert. Whenever a natural drain or a ditch constructed in the course of natural drainage crosses a public highway or a railroad, or an air-strip or airplane landing field, the highway authority or the railroad, or the political subdivision or municipality which owns the air-strip or airplane landing field, shall construct and thereafter keep in repair and maintain a bridge or culvert of sufficient length, depth, height above the bed of the drain or ditch, and capacity to subserve the needs of the public with respect to the drainage of the lands within the natural watershed of such drain or ditch, not only as such needs exist at the time of construction, but for all future time. If a drainage 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 the support from under any abutment, pier, wingwall or other supporting member of a highway or railroad bridge, or an air-strip or airplane landing field, the drainage district is liable to the highway authority or railroad, or the political subdivision or municipality which owns the air-strip or airplane landing field, for the cost of protecting or underpinning such abutment, pier, wingwall or other supporting member. The amount of such liability may be fixed and determined by agreement between the drainage commissioners and the highway authority or railroad, or the political subdivision or municipality which owns the air-strip or airplane landing field, or by the allowance of damages in the assessment proceeding or, if there is no assessment proceeding, then by separate action at law. Nothing contained in this paragraph shall be construed as relieving the highway authority or railroad, or the political subdivision or municipality which owns the air-strip or airplane landing field, from its obligation to construct and maintain



adequate bridges or culverts over natural drains or over ditches constructed in the course of natural drainage.

According to the *Illinois Drainage Code* (70 ILCS 605/), highway authorities generally must construct and maintain bridges whenever a natural drain or ditch constructed in the original natural drainage crosses a public highway. If a drainage district has removed or destroyed a highway bridge this statute suggests that the drainage district is responsible for restoring the bridge when it has made such construction necessary. This code requires the highway authority to anticipate drainage needs in a particular area “for all time” and to construct its bridges or culverts of sufficient capacity to accommodate such increased drainage within a basin. The case of *Kankakee & Seneca R.R. Co. v. Horan* (1890) involved a railroad that constructed a culvert of insufficient size. The court decided that in building a culvert, the railroad was bound to anticipate and provide for any legal increase in the flows. As Uchtmann et al. (1986) state, “It is also logical to require a highway authority to design a bridge to accommodate future volumes of flow and at the same time to require the drainage district to protect the abutments and other supporting structures. . . . Perhaps it is a reasonable compromise to compel the highway authority to design the bridges and culverts for adequate quantity and to require the drainage district to protect the supporting members if they decide to alter the flow line.”

In urban areas, the issue of liability for costs of construction and maintenance focuses upon municipal corporations instead of drainage districts exercising storm drainage powers. Municipal corporations must pay for construction of bridges over artificial channels and for replacing bridges destroyed by deepening or widening natural channels. Either the highway authority or the municipality within whose jurisdiction the street or highway lies is responsible for maintenance. (Uchtmann et al., 1986)

In urban areas, drainage is often the responsibility of municipal corporations or special districts formed for storm and sanitary drainage. Illinois statutes explicitly allow for sanitary districts to purchase the “right to appropriate and use such levees, drains or ditches, or any part thereof, as it may desire, for or in connection with any improvements authorized by this act, and for or in connection with the purposes for which said sanitary district is organized; Provided, no such levee, drain or ditch shall be destroyed, removed or otherwise so used as to impair its usefulness for the purposes for which the same was constructed, without the consent of the corporate authorities of such drainage district” (70 ILCS 2205/24). In such urban situations, bridge construction and maintenance is the responsibility of highway authorities and municipal corporations exercising storm drainage powers.

Drains and Ditches Limiting Highway Access

Whenever an open drain “crosses any [privately owned] enclosed tract or parcel of land in such a manner that a portion thereof is landlocked and has no access from any public highway other than by a bridge or passageway over the ditch,” the drainage district may be responsible for constructing a bridge or compensating the owner for the cost of construction in determining the value of the property or easement taken by the district. When an existing

ditch is deepened or widened and a new bridge or culvert becomes necessary, the district is also responsible for the cost (70 ILCS 605/12-5). Similarly, highway authorities must restore a landowner's access to a public highway by constructing "good and sufficient culverts or other convenient crossings" when the highway authority constructs a ditch destroying the access (605 ILCS 5/9-105).

Waterway/Floodplain Encroachment

The Illinois Department of Natural Resources (IDNR) has the authority, under the *Rivers, Lakes and Streams Act*, to administer a permit program regulating construction within public bodies of water and within 100-year floodplains of inland and coastal waters of the State of Illinois (615 ILCS 5/18f). This requires permits from IDNR for construction in floodplains for watersheds that exceed 1 square mile in urban areas or 10 square miles in rural areas. Generally, any increase in the 100-year water surface elevation produced by a floodplain encroachment should not exceed 0.5 foot in rural areas and 0.1 foot in urban areas. For bridges and culverts, the standard allows a larger increase in water elevation (1-foot increase in rural areas and a 0.5 foot increase in urban areas) at the structure and the smaller increase (0.5 foot rural, 0.1 foot urban) 1,000 feet upstream from the structure (17 Ill. Admin Code, Chapter I, Section 3700).

Highway construction within floodplains in Illinois is also controlled by Executive Order 2006-05 titled "Construction Activities in Special Flood Hazard Areas." This order requires that:

(1). All new Critical Facilities shall be located outside of the floodplain. Where this is not practicable, Critical Facilities shall be developed with the lowest floor elevation equal to or greater than the 500-year frequency flood elevation or structurally dry floodproofed to at least the 500-year frequency flood elevation.

(2). All new buildings shall be developed with the lowest floor elevation equal to or greater than the Flood Protection Elevation or structurally dry floodproofed to at least the Flood Protection Elevation.

(3). Modifications, additions, repairs or replacement of existing structures may be allowed so long as the new development does not increase the floor area of the existing structure by more than twenty (20) percent or increase the market value of the structure by fifty (50) percent, and does not obstruct flood flows. Floodproofing activities are permitted and encouraged, but must comply with the requirements noted above.

Construction in Floodplain

The *Clean Water Act* defines pollutants as including "dredged spoil, solid waste, biological materials, rock, sand, cellar dirt, and agricultural waste discharged into water." As a result, under this definition, virtually any deposition of fill constitutes a point source of pollution. Under Section 404 of the *Clean Water Act* the U.S. Army Corps of Engineers is authorized to issue permits for the discharge of dredged and fill materials into the navigable waters of

the United States, as follows: “Any discharge of dredged or fill material into the navigable waters incidental to any activity having as its purpose bringing an area of the navigable waters into a use to which it was not previously subject, where the flow or circulation of navigable waters may be impaired or the reach of such waters be reduced, shall be required to have a permit under this section” (*Clean Water Act*, Section 404, Subsection f.2). Subsections g and h of Section 404 of the *Clean Water Act* allow the states to develop programs to issue permits that ensure compliance with Section 404 of the *Clean Water Act*.



Construction projects in Illinois waterways, floodplains, and wetlands often require both state and federal authorization. According to the IDNR (2011) permit application, “Anyone proposing to construct, operate, or maintain any dam, dock, pier, wharf, sluice, levee, dike, building, utility and road crossings, piling, wall,

fence, or other structure in; or dredge, fill, or otherwise alter the bed or banks of any stream, lake, wetland, floodplain, or floodway subject to state or federal regulatory jurisdiction should apply for appropriate agency approvals.”

Under the *Rivers, Lakes and Streams Act* (615 ILCS, 1994) the Illinois Department of Natural Resources Office of Water Resources (IDNR/OWR) is given authority to issue permits for dams, for any construction within a public body of water, and for construction within floodways. Generally, floodway projects also require local authorization. Additionally, revisions of floodway maps may require approval from IDNR/OWR and from the Federal Emergency Management Agency (FEMA).

All projects in public waters are subject to the *Regulation of Public Waters rules* (17 Illinois Administrative Code, Part 3704). All other floodway construction projects are subject to the *Construction in Floodways of Rivers, Lakes and Streams rules* (17 Illinois Administrative Code, Part 3700). All projects in or along Lake Michigan are subject to the *Regulation of Public Waters rules* (17 Illinois Administrative Code, Part 3704). Joint permits are required for any work in Lake Michigan from IDNR/OWR and the Illinois Environmental Protection Agency (IEPA).

The *Rivers Lakes and Streams Act* (615 ILCS 5/) includes special provisions for construction in floodplains in the six counties served by the Northeastern Illinois Planning Commission. This statute states that “[n]o person may engage in any new construction within the 100-year

floodway as designated by the Department in such metropolitan counties, unless such construction relates to an appropriate use of the floodway.” (615 ILCS 5/18g) This statute defined “[a]ppropriate use of the floodway” as:

(i) flood control structures, dikes, dams and other public works or private improvements relating to the control of drainage, flooding or erosion; (ii) structures or facilities relating to the use of, or requiring access to, the water or shoreline, including pumping and treatment facilities, and facilities and improvements related to recreational boats, commercial shipping and other functionally dependent uses; and (iii) any other purposes which the Department determines, by rule, to be appropriate to the 100-year floodway, and the periodic inundation of which will not pose a danger to the general health and welfare of the user, or require the expenditure of public funds or the provision of public resources or disaster relief services. Appropriate use of the floodway does not include construction of a new building unless such building is a garage, storage shed or other structure accessory to an existing building and such building does not increase flood stages.

The precursor to this statute (Ill.Rev.Stat.1989, ch. 19, par. 65g.) was challenged in *Beverly Bank v. Illinois Department of Transportation* (1991). In that case the plaintiff was denied a construction permit for two parcels located inside a defined 100-year floodway. In finding in favor of the Illinois Department of Transportation (prior to the *Rivers Lakes and Streams Act*, the Office of Water Resources was part of the Department of Transportation rather than the Department of Natural Resources), the court stated:

We agree with defendant that the General Assembly has the authority to prohibit all new residential construction in the 100-year floodway. It is reasonable for the General Assembly to rely on the extensive research contained in the Governor’s flood control task force report which documented the demographic and land use changes which have contributed to the increased flooding in the 100-year floodway. It is reasonable for the General Assembly to accept the recommendation of the task force that a central part in the response to the severe flooding which may occur in a 100-year flood event is the prohibition of all new residential construction in the floodway. It is also reasonable for the General Assembly to rely on the scientific study contained in the report which emphasized the importance of maintaining existing natural storage areas in the watershed to reduce flood damage.

We hold that the General Assembly has the authority, based on the police power, to prohibit the construction of new residences in areas which would be under water in the event of a 100-year flood event. For the reasons out-lined above, such legislation is rationally related to several legitimate State interests. For the same reasons, we find section 18g bears a substantial relation to the public health, safety and welfare.

Stormwater Management

Uchtmann et al. (1986) address the need for stormwater detention storage as follows: “In nonagricultural land uses and absent local ordinances specifying storm drainage and deten-

tion requirements, owners of dominant estates may drain their lands into public drains or onto servient lands as long as the increased flow of surface waters is consistent with the policy of reasonableness of use.” However, Illinois Department of Transportation (IDOT, 2011) policy states that:

(a) Urban- Storage facilities shall be provided in urban and built-up areas whenever a significant increase in the amount of runoff occurs as a result of increased impermeability, reduced time of concentration, and/or the filling of natural storage areas.

(b) Rural- Storage facilities shall be provided in rural areas whenever the hydraulic analysis indicates that flood damage will result from an increase in the amount of runoff occurring as a result of increased impermeability, reduced time of concentration, and/or the filling of natural storage areas.

One significant change since the 1986 drainage manual is the expansion of regulations related to environmental quality. In that publication, Uchtmann et al.(1986) state “[u]ntil the passage of legislation in the late 1960s, the common law nuisance action was a landowner’s only remedy for interference in the use and enjoyment of the land. Despite today’s wide variety of water pollution control legislation, including statutory nuisance, it is generally limited to controlling point sources. Thus, the common law nuisance action is still important.” However, changes since 1986 have significantly altered this statement. In particular, implementation of the National Pollutant Discharge Elimination System (NPDES) Stormwater Program has provided regulatory measures to address non-point sources of pollutants. Compliance with environmental regulation is beyond the scope of this manual and is not discussed in detail. The aim of this section is to make highway authorities and land owners aware of environmental laws that may affect highway drainage.

NPDES permits are designed to allow point source discharges into the “waters of the United States.” The NPDES permit program is administered by the United States Environmental Protection Agency (U.S. EPA), but the act provides that it can be delegated to a state once the state promulgates regulatory guidelines. The State of Illinois was delegated the authority to administer the NPDES permit program through the IEPA following the adoption of amendments to the water pollution regulations. The NPDES Stormwater Program was implemented in two major phases, with effective dates of October 1992 (Phase I) and March 2003 (Phase II), respectively.

The first phase includes discharges associated with industrial activity (including construction activity) and discharges from all public stormwater collection systems serving urban populations of 100,000 or more.

The second phase addresses stormwater discharges from small municipal separate storm sewer systems (MS4s) (those serving fewer than 100,000 people) and construction sites that disturb 1 to 5 acres. Generally, Phase I MS4s are covered by individual permits and Phase II MS4s are covered by a general permit. Each regulated MS4 is required to develop and

implement a stormwater management program (SWMP) to reduce the contamination of stormwater runoff and prohibit illicit discharges.

Changes made in Phase II:

1. Outside urbanized areas, all stormwater collection systems serving a population center of at least 10,000 people with a population density of at least 1,000 people per square mile are included in the program.
2. Within urbanized areas, almost all stormwater collection systems, as well as those serving a population of fewer than 10,000 people, are included in the program.
3. The minimum amount of soil disturbance that would trigger a permit requirement is reduced to 1 acre (0.4 hectares) from 5 acres (2 hectares) in most cases.
4. Stormwater discharge permits are required by EPA from any discharger that contributes to a violation of water quality standard or that contributed a substantial load of pollutants to the waters of the United States.
5. Return flows from irrigated agriculture, agricultural stormwater runoff, and discharges from non-point silvicultural activities are exempt from NPDES permit requirements.

A significant change in Illinois drainage laws since the 1986 and 1997 drainage manuals is the provision to incorporate green stormwater infrastructure into drainage design. Illinois Public Act 098-0330 modifies the Illinois Municipal Code (65 ILCS 5/11-110-1) as follows:

(1) adds other 'green infrastructure' facilities, such as green roofs, rain gardens, bioswales, tree boxes, porous pavement, porous pipe systems, native plantings, constructed wetlands, and cisterns, to drainage purposes that corporate authorities may lay out, establish, construct, and maintain; (2) authorizes corporate authorities to provide for draining or otherwise managing the runoff, such as by infiltration, evapotranspiration, or collection; and (3) permits a combination of special assessment and general taxation.

In 2009 Illinois adopted regulations for stormwater management under the statewide *Stormwater Regulation for Small MS4s* (Illinois Pollution Control Board Rules and Regulations 35 III. Adm. Code, Subtitle C, Chapter 1). These regulations and the Illinois General NPDES Permit No. ILR40 (IEPA 2009) specify a size threshold of “land development projects that disturb greater or equal than one acre or less than



one acre for discharges from construction activity for a larger common plan of development or sale that would disturb one acre or more.”

IEPA (2009) requirements for MS4 permits include:

1. Developing a stormwater management program comprising best management practices (BMPs) and measurable goals for each of the following six minimum control measures:
 - Public education and outreach on stormwater impacts
 - Public involvement and participation
 - Illicit discharge detection and elimination
 - Construction-site stormwater runoff control
 - Post-construction stormwater management in new development and redevelopment
 - Pollution prevention/good housekeeping for municipal operations
2. Submitting a completed Notice of Intent; and
3. Submitting an annual report to IEPA in June of each year.

The Illinois stormwater regulations specify Post-Construction Standards for New Development as follows:

The permittee should require the person responsible for the construction or new development to adopt one or more of these strategies, in order of preference, or provide a rationale for selecting a more preferred strategy:

- i. Preservation of the natural features of development sites, including natural storage and infiltration characteristics;*
- ii. Preservation of existing natural stream channels, and drainage ways;*
- iii. Minimization of new impervious surfaces;*
- iv. Conveyance of stormwater in open vegetated channels;*
- v. Construction of structures that provide both quantity and quality control, with structures serving multiple sites being preferable to those serving individual sites; and*
- vi. Construction of structures that provide only quality control, with structures serving multiple sites being preferable to those serving individual sites.*

Section 401 of the *Clean Water Act* states, “Any applicant for a Federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may result in any discharge into the navigable waters, shall provide the licensing or permitting agency a certification from the State in which the discharge originates.” The IEPA provides water quality certification pursuant to Section 401 of the *Clean Water Act*. This certification is mandatory for all projects requiring a Section 404 permit from the Corps of

Engineers. In addition to determining that the proposed work will not violate the applicable water quality standards, the IEPA also makes a determination of additional permit and regulatory requirements pursuant to the Illinois Pollution Control Board rules and regulations, such as for hauling and disposal of dredged material.

A recent federal case that may impact stormwater drainage design is *Ecological Rights Foundation v. Pacific Gas and Electric Company* (2013). In that case the Ecological Rights Foundation filed a citizen suit against Pacific Gas and Electric (PG&E) alleging that PG&E had violated the *Clean Water Act* by “discharging ‘pollutant-bearing stormwater runoff’ from their utility poles into the waters of the United States without an NPDES permit.” The source of the pollutants cited in the complaint was wood preservative leaching from the utility poles. In their opinion dismissing the Ecological Rights Foundations suit, the court stated, “Stormwater runoff is a nonpoint or point source . . . depending on whether it is allowed to run off naturally (and is thus a nonpoint source) or is collected, channeled, and discharged through a system of ditches, culverts, channels, and similar conveyances (and is thus a point source discharge).”

At the time of this writing, the authors are unaware of any court cases related to *Illinois Stormwater Regulations for Small MS4s*.

Agricultural Drainage

Drainage Districts

Natural drainage rules do not adequately meet the needs of landowners in many parts of the state—particularly in the flat prairie areas and in river bottoms, where both drainage and flood protection are needed. To cover the inadequacies of the natural drainage rules and to give landowners a means of securing proper drainage, the legislature in 1879 passed two laws, the *Levee Act* and the *Farm Drainage Act*. These laws provide for drainage districts based on a system of assessments that permitted the districts to include only lands benefited (Uchtmann and Gehris, 1997).

The organization of drainage districts in Illinois is governed by the *Illinois Drainage Code* (70 ILCS 605/Art. III). While drainage districts are authorized by the *Illinois Drainage Code*, they are not specifically created by it. The legislation provides the legal framework for drainage districts and gives them certain powers but leaves organization and formation of the district up to local citizens.

Drainage districts are limited in which landowners they can include in the district and thereby include in their assessments. If landowners have adequate drainage under natural drainage, they do not receive the benefits of a drainage district, and their land cannot be included in a drainage district against their wishes. Uchtmann and Gehris (1997) state, “The mere fact that the ditches of a drainage district carry off water that originates on this land does not mean, in a legal sense, that the owners are necessarily benefited by the drainage district. Land may not be included in a drainage district nor be assessed by the district against the owners’ will unless it can be shown that the property will be materially benefited by the

district systems.” On the other hand, a district has the right to subject the land of anyone who connects a drain or drains to the district’s drains to the jurisdiction of the district. Assessments to support a drainage district can be levied only against benefited land and they cannot exceed the benefits that the land will receive. Landowners are entitled to a court hearing about their benefits before they are required to pay their benefits.

The *Illinois Drainage Code* (70 ILCS 605/4-14) allows drainage districts to “use any part of any public highway for the purposes of work to be done, provided such use will not permanently destroy or materially impair such public highway for public use.” However, the *Illinois Highway Code* (605 ILCS 5/9-113) requires permission from the highway authority before any construction is undertaken within the highway right-of-way. Presumably, this requirement means that drainage districts must obtain the permission of the highway authority and compensate any abutting landowners affected by the construction. This leaves open the possibility of a drainage district requesting permission to use or construct drains along or across a highway right-of-way and the highway authority refusing permission. Uchtmann et al. (1986) state that “[i]t is not clear how a drainage district may proceed if the highway authority refuses to permit the use or construction of drains along a highway.” The *Illinois Drainage Code* (70 ILCS 605/4-17) states that “[w]henver the commissioners are unable to agree with any land owner ... on the amount of compensation to be paid ... then the commissioner may ... acquire any such lands, easements, rights-of-way, properties, and interest, whether privately owned, publicly owned, or held for the use of the public, by the exercise of the right of eminent domain.” Uchtmann et al. (1986) cite *Metropolitan Sanitary District v. City of Des Plaines* (1976) in which a sanitary district was allowed to condemn highway property in order to obtain an easement of right-of-way for a water main. This precedent implies that drainage districts may be permitted the use of eminent domain against a highway authority.

Details on the organization and structure of drainage districts and on the powers and duties of drainage commissioners are presented in Uchtmann and Gehris (1997).

Drainage and Regulation of Wetlands

Illinois defines waters of the state as “all accumulations of water, surface and underground, natural, and artificial, public and private, or parts thereof, which are wholly or partially within, flow through, or border upon this State.” A wetland is an area of wet soil that will support plants such as willows and cattails and other plants that grow well in wet soils or water. Wetlands provide physical, chemical, and biological functions that are



beneficial to society, reduce damage from flooding, improve water quality, and provide high-quality habitat for fish and wildlife.

Federal Wetlands Regulation

Under the *Rivers and Harbors Appropriation Act of 1899*, the United States Army Corps of Engineers (Corps) oversaw the regulation of discharges into navigable waterways. In the 1972 amendments to the *Federal Water Pollution Control Act* [now commonly known as the *Clean Water Act* (CWA)], rock and sand were included among lists of “pollutants.” The 1972 amendments defined the scope of the CWA as “the waters of the United States.” Under authority derived from the CWA, the Corps’ jurisdiction now applies to discharges of “dredged or fill material” into all “waters of the United States,” which the Corps has defined as covering interstate waters and wetlands, intrastate waters whose “use, degradation or destruction . . . could affect interstate or foreign commerce,” tributaries of those protected waters, and wetlands adjacent to protected waters. Under Section 404 of the CWA the Corps is authorized to grant permits for discharges of “dredged or fill material” into protected waters at specific locations.

Amendments to Section 404 of the CWA in 1977 established a program to regulate the discharge of dredged and fill material into waters of the United States, including wetlands. Activities regulated under that program include water resource projects (such as dams and levees) and conversion of wetlands to farming and forestry.

The Corps and EPA have key regulatory responsibilities under the Section 404 program. The Section 404 program requires that no discharge of dredged or fill material can be permitted if a practicable alternative exists that is less damaging to the aquatic environment or if the nation’s waters would be significantly degraded. In other words, a permit application must show that the applicant has:

1. taken steps to avoid wetland impacts, where practicable;
2. minimized potential impacts to wetlands; and
3. provided compensation for any remaining, unavoidable impacts through activities to restore or create wetlands.

Illinois Wetland Regulations

States may administer their own permit programs for wetlands as long as their proposed programs comply with the minimum requirements set by the EPA that must be met to issue such permits. Illinois’ *Interagency Wetlands Policy Act of 1989* (IWPA 20 ILCS 830/) established a wetland regulatory program that authorizes the Illinois Department of Natural Resources (IDNR) to regulate state-funded projects and activities that impact wetlands (Environmental Law Institute, 2007). Additionally, the *Rivers, Lakes, and Streams Act* (615 ILCS 5/) provides the IDNR peripheral regulatory authority to regulate construction activities in floodplains; anyone proposing such activities must first secure a permit from IDNR.

Drainage improvements otherwise allowed under *the Illinois Drainage Code* are discouraged or prohibited by these additional laws protecting wetlands (Uchtmann and Gehris, 1997).

The Illinois Department of Transportation has developed a *Wetlands Action Plan* (IDOT, 1998) that calls for policies and procedures that address adverse wetlands impacts prioritized as follows, while giving due consideration to safety and appropriate design standards:

- | | |
|------------------|--|
| First priority: | Avoidance of adverse wetland impacts |
| Second priority: | Minimization of adverse wetland impacts |
| Third priority: | Compensation for unavoidable adverse wetland impacts in accordance with the ratios in 17 Ill. Admin. Code Ch. I, Sec. 1090 |

Wetland impacts of less than 0.3 acre resulting from IDOT-funded projects will be compensated for from a wetland compensation account site or other approved source of pre-existing wetland credits. Compensation for unavoidable adverse impacts of 0.3 acre or more will be provided prior to or concurrent with the project action that causes the wetland impact, with priority given to locating the compensation as close to the impacted wetlands as practical. If a wetland compensation plan that meets the objectives of the act cannot be developed, or if unique opportunities exist to further the goals of the act through other means, approval may be requested from IDNR for the following:

1. Acquisition of high-quality wetlands and associated buffer;
2. Funding of needed relevant research; or
3. Wetlands compensation that provides replacement of the same and different wetland types as the adversely impacted wetlands.

In addition to a wetland compensation plan, steps must be taken to ensure that compensation wetlands are maintained for wetlands purposes. This may involve transferring the property to IDNR or another suitable entity to assume responsibility for long-term management of wetland compensation sites or requiring the local agency with jurisdiction of the site to ensure that the site will be maintained for wetlands purposes.

Illinois statutes also require a permit from IDNR for construction by highway authorities, by drainage districts, or by individuals when such construction is located in any stream or floodway draining more than 1 square mile in an urban area or 10 square miles in a rural area. Specifically exempted from the rules are field tile systems, tile outlet structures, terraces, water and sediment control basins, grade stabilization structures, and grassed waterways that do not obstruct flows. In addition, most of the maintenance and repair of existing structures is excluded. The law applies to any person, corporation, unit of local government, or state agency (615 ILCS 5/29a).

Jurisdiction of Wetlands Regulations

A key question concerning wetlands regulations is which wetlands fall under the jurisdiction of federal law. The Corps initially approached its jurisdiction as it had under the *Rivers and Harbors Act*, as “[n]avigable waters of the United States are those waters that are subject to the ebb and flow of the tide and/or are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce” (33 C.F.R. pt. 329). Because wetlands are generally not navigable, this early definition excluded most wetlands and other isolated waters from CWA jurisdiction. Strand and Rothschild (2010) state that “environmental groups challenged these regulations, arguing that the regulatory jurisdiction of the CWA extended beyond traditionally navigable waters to a broader aquatic system, including small streams, tributaries, and wetlands.” In *Natural Resources Defense Council v. Callaway* (1975), a federal district court found that the Corps’ defined “navigable waters” too narrowly under the CWA. Following the guidance of the court and the CWA’s legislative history, the Corps revised its regulations to include a broader range of waters, including adjacent wetlands and isolated waters, giving the definition of “navigable waters” the broadest constitutional interpretation possible.

In 2001 the United States Supreme Court decided the case of *Solid Waste Agency of Northern Cook County (SWANCC) v. U.S. Army Corps of Engineers* (2001). In this case a consortium of villages and cities in the Chicago metropolitan area sought to develop a landfill for non-hazardous solid waste on a 533-acre site that had formerly been a sand/gravel mine. This site contained several ponds that would be filled in as part of the plan. These ponds were isolated from navigable waters. SWANCC applied for a Corps of Engineers Section 404 permit, which was denied, with the Corps citing use of the ponds by migratory birds as the basis for its jurisdiction over the site. The court rejected this argument on a 5–4 vote. The court stated that not only would the recognition of the *Migratory Bird Rule* be inappropriate under the language of the CWA for “isolated” and “intrastate” waters, but also that in this particular case it would raise constitutional concerns about the “significant impingement of the States’ traditional and primary power over land and water use.”

We said in Riverside Bayview Homes that the word “navigable” in the statute was of “limited effect” and went on to hold that §404(a) extended to nonnavigable wetlands adjacent to open waters. But it is one thing to give a word limited effect and quite another to give it no effect whatever.

Where an administrative interpretation of a statute invokes the outer limits of Congress’ power, we expect a clear indication that Congress intended that result. ... This concern is heightened where the administrative interpretation alters the federal–state framework by permitting federal encroachment upon a traditional state power.
(*Solid Waste Agency of Northern Cook County (SWANCC) v. U.S. Army Corps of Engineers*, 2001)

In two more recent cases (*Rapanos v. United States*, 2006; *Carabell v. U.S. Army Corps of Engineers*, 2004), which the Supreme Court consolidated (*Rapanos et ux., et al. v. United*

States, 2006), the Supreme Court again addressed the Corps' jurisdiction over isolated wetlands.

[T]he phrase “waters of the United States” includes only those relatively permanent, standing or continuously flowing bodies of water “forming geographic features” that are described in ordinary parlance as “streams,” “oceans,” “rivers,” and “lakes,” Webster’s New International Dictionary 2882 (2d ed.), and does not include channels through which water flows intermittently or ephemerally, or channels that periodically provide drainage for rainfall. The Corps’ expansive interpretation of that phrase is thus not “based on a permissible construction of the statute. . . .”

And the CWA itself categorizes the channels and conduits that typically carry intermittent flows of water separately from “navigable waters,” including them in the definition of “point sources, . . .”

Isolated ponds are not “waters of the United States” in their own right. . . . Thus, only those wetlands with a continuous surface connection to bodies that are “waters of the United States” in their own right, so that there is no clear demarcation between the two, are “adjacent” to such waters and covered by the Act. (Rapanos v. United States, 2004)

In a concurring opinion on *Rapanos*, the Chief Justice stated that interested parties may lack guidance “on precisely how to read Congress’ limits on the reach of the Clean Water Act” and would be left “to feel their way on a case-by-case basis.” In analyzing these decisions, Strand and Rothschild (2010) state, “Albeit in significantly divided opinions, the Supreme Court has now twice expressed the position that Congress had intended some limits on federal jurisdiction, given the use of the term ‘navigable’ and the statutory recognition of a major role for the states. Absent a change to the statute or precedent of the Supreme Court, the limit has to be addressed by the federal agencies.”

In another decision related to Section 404 permitting of wetlands (*Sackett v. Environmental Protection Agency*, 2012), the United States Supreme Court addressed the issue of judicial review of agency decisions related to Section 404 permitting. The Sacketts own a 2/3-acre lot near Priest Lake, Idaho, on property separated from the lake by several lots containing permanent structures. In preparation for building a house, the Sacketts filled part of their lot with dirt and rock. Months later, they received a compliance order from the U.S. EPA indicating that their site was a wetland and that the fill was an ongoing point source discharge of pollutants to waters of the United States. The compliance order further required them to restore their site and provide EPA with access to the site. The Sacketts requested a hearing, but their request was denied, prompting them to seek remedy in the courts. In reversing the lower courts, the Supreme Court stated, “[T]here is no reason to think that the *Clean Water Act* was uniquely designed to enable the strong-arming of regulated parties into ‘voluntary compliance’ without the opportunity for judicial review—even judicial review of the question of whether the regulated party is within the EPA’s jurisdiction. Compliance orders will remain an effective means of securing prompt voluntary compliance in those

many cases where there is no substantial basis to question their validity” (*Sackett v. Environmental Protection Agency*, 2012).

Several recent cases have raised questions about the reach of the wetlands permitting required under the *Clean Water Act*. The results of these cases indicate that the reach is more limited than previously was required but that clear-cut guidance is not available at present and jurisdiction must be decided on a case-by-case basis. In response to these rulings the U.S. EPA in April 2014 proposed a new rule redefining the “[w]aters of the United States” that greatly broadens the reach of the *Clean Water Act* (*Federal Register*, Vol. 79, No. 76, Monday, April 21, 2014). Of significance for highway authorities, under the proposed rule, for the first time, man-made waterways and water bodies such as ditches could be considered jurisdictional under the *Clean Water Act*. The proposed rule states, “A tributary, including wetlands, can be a natural, man-altered, or man-made water and includes waters such as rivers, streams, lakes, ponds, impoundments, canals, and ditches.” The proposed rule does exclude “ditches that are excavated wholly in uplands, drain only uplands, and have less than perennial flow⁵ and ditches that do not contribute flow, either directly or through another water, to a traditional navigable water, interstate water, the territorial seas or a jurisdictional impoundment” (*Federal Register*, Vol. 79, No. 76, Monday, April 21, 2014).

It should be noted that the U.S. Department of Agriculture (USDA) also has a wetland program (commonly known as “Swampbuster”) authorized under the *Food Security Act of 1985* as amended by the *Food, Agriculture, Conservation, and Trade Act of 1990* and the *Federal Agriculture Improvement and Reform Act of 1996*. Under these provisions, any person who clears, drains, dredges, levels, or alters a wetland after December 23, 1985, to produce an agricultural commodity shall be ineligible for USDA program benefits on all land owned or operated in an amount proportionate to the severity of the violation. The USDA definition of wetland is “areas that have a predominance of hydric soils and that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of hydrophytic vegetation typically adapted for life in saturated soil conditions” (Natural Resources Conservation Service, 2010). The National Resources Conservation Service (2005) warns that certified wetland determination/delineation for the purpose of implementing wetland conservation provisions of the *Food Security Act of 1985* “may not be valid for identifying the extent of the COE’s [Corps of Engineers] Clean Water Act jurisdiction” (National Resources Conservation Service, 2005). More details about the USDA wetlands program are provided by Uchtmann and Gehris (1997).

In Illinois, Section 1-6 of the *Illinois Interagency Wetland Policy Act of 1989* (20 ILCS 830/1-6) defines a wetland as:

land that has a predominance of hydric soils (soils which are usually wet and where there is little or no free oxygen) and that is inundated or saturated by surface or

⁵ In other words, an ephemeral stream.

groundwater at a frequency and duration sufficient to support, and that under normal circumstances does support, a prevalence of hydrophytic vegetation (plants typically found in wet habitats) typically adapted for life in saturated soil conditions. Areas which are restored or created as the result of mitigation or planned construction projects and which function as a wetland are included within this definition even when all three wetland parameters are not present.

This definition avoids the questions of jurisdiction that are raised regarding the CWA's use of the term "waters of the United States" and, at the time of this writing, the authors are unaware of any cases questioning Illinois' jurisdiction embodied in the *Illinois Interagency Wetland Policy Act of 1989*.

Other Drainage Topics

Groundwater Related to Drainage

In the *Water Use Act of 1983*, the General Assembly changed the legal policy of groundwater being the property of the landowner to state that "[t]he rule of 'reasonable use' shall apply to groundwater withdrawals in the State (525 ILCS 45/6)." In discussing the implications of this statute on highway drainage, Christopher (2004) states, "The only reported case which has interpreted this language concerned a homeowner whose well dried up when a drainage ditch next to her home was deepened and enlarged [*Bridgman v. Sanitary District of Decatur*, 1987]. The court reviewed the legislative history and decided the phrase 'reasonable use' in this act has the same meaning as the doctrine of reasonable use in disputes over the use of water in streams by riparian owners. In those riparian cases each user is entitled to use the resource as long as no other's use is unreasonably deprived. This means that groundwater is a shared resource. This provision can come into play when a highway ditch affects the levels of an adjacent pond or well. The highway authority is probably not responsible for all damages but can probably be held responsible for damage which could have been avoided by undertaking reasonable precautions."

Summary

The following is a summary of the drainage laws and regulations discussed previously. This section is organized to follow the sections in which these principles were more fully presented.

The Law of Natural Drainage

The basic principle guiding drainage law in Illinois is referred to as the *Law of Natural Drainage*: "Landowners, including highway authorities, have a right to drain water away as it would in a state of nature. Lower landowners, including highway authorities, have a responsibility to accept water flowing naturally onto or through their lands and have no right to interfere with such natural drainage" (Uchtmann et al., 1986). This means that the owner of dominant (higher) land cannot change the course of flow or render it more rapid or divert

from one watershed to another and that the owner of the servient (lower) land cannot do anything to hinder his or her grounds from receiving the flow from the dominant land.

Because practices that increase the productivity of agricultural land tend to increase the runoff of water from that land, the Illinois Supreme Court developed the *Good Husbandry Exception* that allows the owners of dominant land to increase the amount of flow from their land “in the interests of good husbandry” provided that the point where the discharge entered the servient estate was not altered. While the *Good Husbandry Exception* was originally established for development of agricultural land, court decisions over the years have expanded it to any legitimate farming operation and even strictly non-agricultural development as long as the resulting drainage meets a “reasonableness limitation.”

The *Reasonable Use Limitation* says that a landowner is legally privileged to make a reasonable use of his or her land, even though the resulting alteration of the flow of surface water may cause some harm to others. The landowner is liable for the harm to the extent that the harm is tied to an unreasonable development of the higher land. The burden of proving that the land development was unreasonable falls on the plaintiff. Determining whether the development was reasonable is done on a case-by-case basis that considers both the benefit to the dominant estate and the harm to the servient estate.

Easements

An easement is an interest in another’s land that allows the easement owner to use the other’s land for special purposes consistent with the other’s general property rights; for example, the right to have water flow across a neighbor’s land. Drainage easements can be created by nature, by agreement, by condemnation, or by prescription. An easement in or over another’s land provides the easement holder the right of access to do all such things as are necessary to preserve the easement. If the beneficiary of the easement abandons it, the easement disappears and the landowner resumes his or her full and unencumbered interest in the land.

Highway Drainage

The interaction of the drainage features of highways with those of the adjoining lands that they cross is governed by the same rules applying to private land. By Illinois statute, highway authorities can obtain drainage easements by deed, by prescription, or by eminent domain (condemnation). Illinois statutes also permit highway authorities to convey water from the highway in a direction other than its natural course. Therefore, a highway authority can divert water as long as it has acquired the necessary easements from affected parties. Because the highway authorities own only an easement in the highway land and the fee remains in the adjoining owner, highway authorities have no right to grant abutting landowners the privilege of digging a ditch along the highway fronting the property of another landowner.

The *Illinois Highway Code* imposes on the highway authorities the duty to “construct, maintain, and repair the highways” within their jurisdiction. If the highway is benefited by a highway drain or ditch it is likely that the highway authority is responsible for the

maintenance costs. Similarly, the highway authority is responsible to inspect bridges and culverts on public streets and highways.

According to the *Illinois Drainage Code*, highway authorities generally must construct and maintain bridges whenever a natural drain or ditch constructed in the original natural drainage crosses a public highway.

Waterway/Floodplain Encroachments

Construction projects in Illinois waterways, floodplains, and wetlands often require both state and federal authorization. Under Section 404 of the *Clean Water Act*, virtually any deposition of fill constitutes a point source of pollution and is therefore subject to permit approval from the U.S. Army Corps of Engineers. Under the *Rivers, Lakes and Streams Act* the Illinois Department of Natural Resources Office of Water Resources (DNR/OWR) is given authority to issue permits for dams, for any construction within a public body of water, and for construction within floodways. Generally, floodway projects also require local authorization. Additionally, revisions of floodway maps may require approval from IDNR/OWR and from the Federal Emergency Management Agency (FEMA). Additional special provisions apply for projects in the six counties served by the Northeastern Illinois Planning Commission and all projects in or along Lake Michigan.

Stormwater Management

A significant change since the 1986 drainage manual is the expansion of regulations related to environmental quality. Implementation of the National Pollutant Discharge Elimination System (NPDES) Stormwater Program has provided regulatory measures to address non-point sources of pollutants. Phase I of the program, implemented in 1992, includes discharges associated with industrial activity and discharges from all public stormwater collection systems serving urban populations of 100,000 or more. Phase II of the program, implemented in 2003, expands the program to address stormwater discharges from small municipal separate storm sewer systems (MS4s) serving a population center of at least 10,000 people with a population density of at least 1,000 people per square mile and construction sites that disturb more than 1 acre. Illinois requires MS4 permits for projects that disturb more than 1 acre, or less than 1 acre for discharges from construction activity for a larger common plan of development or sale that would disturb 1 acre or more. The MS4 permit should include a stormwater management program comprised of best management practices (BMPs) and measurable goals for six minimum control measures, as well as a Notice of Intent and an annual report to the Illinois Environmental Protection Agency. (IEPA)

Agricultural Drainage

Illinois law provides for the creation of drainage districts to give landowners a means of securing proper drainage and provides for a system of assessments that includes only the lands benefited by the district. The drainage code allows drainage districts to “use any part of

any public highway for the purposes of work to be done, provided such use will not permanently destroy or materially impair such public highway for public use.”

Regulation/Drainage of Wetlands

Section 404 of the *Clean Water Act* (CWA) amendments of 1977 established a program to regulate the discharge of dredged and fill material into the waters of the United States, including wetlands. Activities regulated under that program include water resource projects (such as dams and levees) and conversion of wetlands to farming and forestry. The Corps of Engineers and the United States Environmental Protection Agency (U.S. EPA) have regulatory responsibilities to ensure that permit applicants have:

1. taken steps to avoid wetland impacts;
2. minimized potential impacts to wetlands; and
3. provided compensation for any remaining, unavoidable impacts through activities to restore or create wetlands.

The United States Department of Agriculture (USDA) has different definitions of wetlands than “the waters of the United States” used in the CWA. The USDA administers agricultural benefit programs, and any clearing, draining, dredging, leveling, or altering a wetland to produce an agricultural commodity results in ineligibility for USDA program benefits. Because of the different definitions of wetlands, the Natural Resources Conservation Service’s (NRCS) wetland delineation may not be valid for identifying jurisdictional wetlands of the CWA Section 404 program.

Illinois’ *Interagency Wetlands Policy Act of 1989* established a wetland regulatory program that authorizes IDNR to regulate state-funded projects and activities that impact wetlands. Additionally, the *Rivers, Lakes, and Streams Act* (615 ILCS 5/) provides the IDNR peripheral regulatory authority to regulate construction activities in floodplains; anyone proposing such activities must first secure a permit from IDNR.

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Glossary

Adverse. (1) A right that is contrary to the interest or claim of another, such as an easement across another's property. (2) Harmful or unfavorable.

Annual exceedance probability (AEP). The probability that a flood or event of the specified magnitude will be equaled or exceeded in any year. For example, a flood with a 1% AEP has a 1 in 100 chance of being exceeded in any year. A variety of terms are often used to describe the chance of an event, but the preferred method is the annual exceedance probability.

Artificial watercourse. A watercourse generally owing its origin to acts of man. Examples are canals, drainage ditches, and subsurface drains.

Basin. A natural or artificially created space or structure that is capable of holding water by reason of its shape and the character of its confining material; the surface area within a given watershed.

Berm. A constructed barrier of compacted earth, rock, or gravel.

Best management practices (BMPs). Schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters. BMPs also include treatment requirements, operating procedures, and practices to control site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. With regard to construction, BMPs may include structural devices or nonstructural practices that are designed to prevent pollutants from entering water or to direct the flow of water.

Bridge. A structure erected on foundations, piers, or abutments over a depression or an obstacle such as a river, roadway, or railroad; it carries a roadway for vehicular and pedestrian traffic and provides an opening greater than 20 feet.

Catch basin. A chamber or well, usually built at the curb line of a street and combined with an inlet, for the admission of surface water to a sewer or subdrain, having at its base a sediment sump designed to retain grit and detritus below the point of overflow.

Catchment. Synonymous with drainage basin, especially in British literature. In the United States "catchment" often refers to a small area. The area of land, defined based on the topography that collects and discharges surface runoff past a defined outlet point.

Channel. (1) A natural or artificial watercourse of perceptible extent that periodically or continuously contains moving water or which forms a connecting link between two bodies of water. It has a definite bed and banks, which serve to confine the water. (2) The deep portion of a river or waterway that is used by watercraft.

Civil law. A written code of laws that originated in ancient Rome and that is still used in many countries. It is distinguished from English common law, which is based on statutes

and court decisions. (Louisiana is the only state now under civil law, although Illinois and some others have adopted natural drainage rules like those in the civil law.)

Codification. The rearrangement of all the laws on a particular subject under one general title and in one place.

Common enemy rule. “Surface water is a common enemy, and each landowner has an unlimited legal privilege to deal with it as he or she pleases without regard to the consequences that might be suffered by a neighbor” (Crowell v. Marshall County Drainage Board, 2012). Opposed to it is the natural drainage rule, which requires the owner of lower land to accept surface water that naturally drains onto that land.

Common law. The body of principles that evolved from traditional usage and custom and that now receives judicial recognition and sanction through repeated application. These principles develop independent of legislation and are embodied in court decisions.

Condemnation. A legal proceeding to secure private land for a public purpose after reasonable payment for it. Condemnation proceedings are used when an owner does not convey title voluntarily. Eminent domain proceedings are condemnation proceedings.

Contiguous. Adjacent or touching.

Critical facility. Critical facility means any facility that is critical to the health and welfare of the population and, if flooded, would create an added dimension to the disaster. The determination of critical facilities should be made by each agency (State of Illinois, 2006).

Culvert. A closed conduit other than a bridge that conveys water in a natural channel or waterway beneath and across a roadway.

Defendant. The person or group defending or denying; the party against whom relief or recovery is sought in an action or suit; the accused in a criminal case.

Diffused surface water. Water that flows across land in no defined channel.

Ditch. An artificially constructed open drain or a natural drain that has been artificially improved.

Diversion. The deflection of surface waters or stream waters into a watercourse to which they are not naturally tributary.

Divide. The watershed or peak of land from which the heads of streams or runoff waters flow in opposite directions.

Dominant estate or tenement. In a drainage context, the dominant estate is higher land from which water naturally flows. The land to which the water naturally flows is the servient estate.

Dominant land. Property so situated that its owners have rights on adjacent property, such as a right-of-way or a right of natural drainage. The adjacent land is called the servient land.

Drain. Any ditch, watercourse, or conduit, whether open, covered, or enclosed, natural or artificial, or partly natural and partly artificial, by which waters coming or falling upon lands are carried away.

Drainage. The general term applied to the removal of surface or groundwater from a given area either by gravity or by pumping.

Drainage area. The measure of the size of a drainage basin. Often this term is incorrectly used as the area from which water originates at a given point or location on a stream (drainage basin).

Drainage basin. The area of land, defined based on the topography, that collects and discharges surface runoff past a defined outlet point. See also *catchment* and *watershed*.

Drainage district. A legal entity formed to construct, maintain, or repair drains or levees or to enlarge other drainage or levee work for agricultural, sanitary, or mining purposes.

Drainage structures. Structures other than drains, levees, and pumping plants that are intended to promote or aid drainage. Such structures may be independent of other drainage work, or they may be a part of or incidental to such work. The term includes but is not restricted to catch basins, bulkheads, spillways, flumes, drop boxes, pipe outlets, junction boxes, and structures whose primary purpose is to prevent the erosion of soil into a drain (70 ILCS 605/1-2).

Drainage system. A system by which lands are drained and protected from overflow, including use of drains, drainage structures, levees, and pumping plants.

Easement. An interest in another's land that allows the easement owner limited use of the other's land for special purposes consistent with the other's general property rights; for example, the right to have water flow across a neighbor's land.

Elevation. Altitude; height in relation to sea level or any assumed datum.

Eminent domain. The power of the state to take private property for public use.

Ephemeral stream. A stream that flows only in direct response to precipitation. Such a stream receives no water from springs, and no long-continued supply from melting snow or other surface source. Its channel is at all times above the water table. The term may be arbitrarily restricted to streams or stretches of streams that do not flow continuously during periods of as much as one month.

Erosion. Wearing away of land surface by running water, wind, or other geological agents.

Fee. A fee is a title or an estate retained indefinitely as rightful owner.

Floodplain. The normally dry land area adjoining rivers, streams, lakes, bays, or oceans that is inundated during flood events. The 100-year floodplain is the area inundated by a flood with a 1 in 100 (1%) annual exceedance probability.

Flood water. Former stream waters that have escaped a watercourse to flow or stand over adjoining lands.

Floodway. Floodway includes the channel of the stream and the adjacent land areas that must be reserved in order to discharge the design flood without cumulatively increasing the water surface by more than a given amount.

Flow line. The bed of a stream or culvert.

Highway. Any public way for vehicular travel laid out pursuant to any law of the State or the Territory of Illinois; or which has been established by dedication or used by the public as a highway for 15 years; or which has been or may be laid out to connect a subdivision or platted land with a public highway and that has been dedicated for the use of the owners of the land in the subdivision or platted land where such dedication has been accepted and used and which has not been vacated pursuant to law. The term “highway” includes rights-of-way, bridges, drainage structures, signs, guardrails, protective structures, and all other structures and appurtenances necessary or convenient for vehicular traffic. A highway in a rural area may be called a road, while a highway in a municipal area may be called a street (605 ILCS 5/2-202).

Highway authority. The state department concerned with state highways; the county board with respect to county highways or county unit district roads if a discretionary function is involved; the county engineer or superintendent of highways if a ministerial function is involved; the highway commissioner with respect to township or district roads not in a county unit road district; or the corporate authorities of a municipality with respect to municipal streets (605 ILCS 5/2-213).

Hydrophytic vegetation. Hydrophytic vegetation is defined by the U.S. Army Corps of Engineers (1987) as: “the sum total of macrophytic plant life that occurs in areas where the frequency and duration of inundation or soil saturation produce permanently or periodically saturated soils of sufficient duration to exert a controlling influence on the plant species present. The vegetation occurring in a wetland may consist of more than one plant community (species association). ... Thus, the presence of scattered individuals of an upland plant species in a community dominated by hydrophytic species is not a sufficient basis for concluding that the area is an upland community. Likewise, the presence of a few individuals of a hydrophytic species in a community dominated by upland species is not a sufficient basis for concluding that the area has hydrophytic vegetation.”

Injunction. A judicial order requiring one to do or refrain from doing a particular act.

Invert. The floor, bottom, or lowest portion of the internal cross section of a conduit.

Jurisdiction. The authority or range of authority for a governing body.

Land. Real property, including but not restricted to lots, railroad rights-of-way, public highways, streets and alleys, and easements.

Landowner. The owner of real property, including an owner of an undivided interest, a life tenant, a remainderman, and a trustee under an active trust; but not including a mortgagee, a trustee under a trust deed in the nature of a mortgage, a lien holder, or a lessee.

Lien. A legal claim against particular property for services rendered the property. A drainage assessment is a legal claim against an assessed property.

Limited fee. Limited fee refers to a fee that ceases with the existence of certain conditions with the following characteristics: (1) It is a right to use the surface of the land for a specific purpose; (2) such land has definite boundaries which must be recorded with the federal government; (3) it cannot be conveyed to be used for any purpose other than that specified in the grant and cannot be taken by adverse possession for any other purpose; (5) when the limited fee is abandoned or forfeited it can only be by virtue of federal statute or regulation and the fee reverts back to the United States; (6) a limited fee owner has a superior right to the surface of the land against anyone else; (7) it is used for railroads, pipelines, power plants, irrigation ditches and reservoirs, canals, etc. for authority as to the foregoing conclusions.

Litigate. To pursue in court through a lawsuit.

Maintenance. Preserving and keeping each type of roadway, roadside, structure, and facility as close as possible to its original condition or as later improved.

Municipal separate storm sewer system (MS4). The regulatory definition of an MS4 (40 CFR 122.26(b)(8)) is “a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains): (i) Owned or operated by a state, city, town, borough, county, parish, district, association, or other public body (created to or pursuant to state law) including special districts under state law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under Section 208 of the Clean Water Act that discharges into waters of the United States; (ii) Designed or used for collecting or conveying storm-water; (iii) Which is not a combined sewer; and (iv) Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2.”

Natural drainage rule. Where two adjoining pieces of land are so situated that one is dominant and the other servient, the dominant landowner has the right to have water flow naturally from his or her land to that of the servient landowner.

Natural watercourse. The course followed by water where the conformation of land is such that it gives the water a fixed and determinate course and discharges it uniformly upon the servient tract at a fixed and definite point.

Non-possessory interest. A non-possessory interest in land is the right to use or restrict the use of another person’s land. While the holder of a non-possessory interest has certain and clear-cut rights in regard to the use of a property, he or she does not hold title to the property. Non-possessory interests do not constitute ownership of the land itself: holders of a

non-possessory interest in real property do not have title, and the owner of the land continues to enjoy the full rights of ownership, subject to any encumbrances.

Perennial stream. A stream that flows continuously at all seasons of a year and during dry as well as wet years. Such streams are usually fed by groundwater, and their water surface generally stands at a lower level than that of the water table in the locality.

Perpetual easement. Perpetual easement is a type of easement that is to last without any limitation of time.

Plaintiff. A person who brings an action; the party who complains or sues in a civil action and is so named on the record; a person who seeks remedial relief for an injury to rights; a complainant; the prosecution in a criminal case.

Plans. Approved drawings or reproductions of drawings pertaining to the construction or details of work.

Prescriptive easement. An easement or interest in another's land acquired by regular use of the land for some purpose rather than being purchased, negotiated, or granted. In drainage this is an easement allowing drainage through a ditch, drain, or culvert onto or across the land of another. In order to acquire this right, open, adverse, and uninterrupted use of the drainage facility must be shown under a claim of right for the required time.

Promulgate. The act of publishing or announcing officially.

Proprietor. An owner or a person who has legal title or exclusive right to some property, whether in possession or not.

Public road. A road constructed on dedicated right-of-way and accepted by a public agency.

Quasi-corporations. Organizations resembling corporations; municipal societies or similar bodies.

Quiet title. A legal proceeding to establish a party's title to real property against anyone and everyone, and thus "quiet" any challenges or claims to the title.

Right-of-way. The entire area reserved for the construction and maintenance of a roadway and the improvement of the roadsides.

Right-of-way plan. A number of right-of-way plats indicating all rights-of-way in one particular section.

Right-of-way plat. A drawing of a tract of right-of-way to be acquired from property owners. The plat shows location, width, length, acreage, and legal description of the tract.

Roadway. That portion of a highway improved, designed, or ordinarily used for vehicular travel.

Rural area. All locations outside an urban area.

Servient estate or tenement. An estate that owes a duty or a service to another estate. The dominant tenement is the estate to which the duty or service is owed.

Servient land. If two adjoining pieces of land are so situated that one piece is at a lower elevation than the other, the lower piece of land is considered to be servient.

Sewage. The water supply of a community after it has been fouled by various uses. It may be a combination of the wastes carried from residences, business buildings, institutions, and industrial establishments together with such groundwater, surface water, and stormwater as may be present.

Silviculture. Silviculture is the branch of forestry dealing with the establishment, growth, composition, health, and quality of forests and woodlands.

Statute of limitations. An act of the legislature that sets a period of time within which a legal action must be brought. In the case of interests in land, the period is usually 20 years from the time the right to sue first arises. The statute makes the defendant immune from suit after the term has expired.

Statutory law. Laws enacted by the General Assembly to enlarge or change the common law.

Stream water. Former surface or groundwaters that have entered and now flow in a well-defined natural watercourse together with other waters reaching the stream by direct precipitation or rising from springs in the bed or banks of the watercourse.

Subsurface drainage. Collection and removal of underground water.

Surface drainage. Collection and removal of water from the surface of the road and the ground.

Surface water. Waters that fall on the land from the skies or arise in springs and diffuse themselves over the surface of the ground, following no defined course or channel, and not gathering into or forming any more definite body of water than a mere bog or marsh. They are lost by being diffused over the ground through percolation, evaporation, or natural drainage.

Toe. (1) The downstream edge at the base of a dam. (2) The line of a fill slope where it intersects the natural ground.

Urban area. An incorporated or unincorporated area that has been developed primarily for residential or business purposes.

Watercourse. A channel in which a flow of water occurs, either continuously or intermittently, and if the latter, with some degree of regularity. Such flow must be in a definite direction. Watercourses may be either natural or artificial, and the former may occur either on the surface or underground.

Watershed. Often used as synonymous with drainage basin. The area of land, defined based on the topography, that collects and discharges surface runoff past a defined outlet point. In a strict sense, the “watershed” is actually the boundary or drainage divide separating one drainage basin from another.

Wetland. Land that has a predominance of hydric soils (soils that are usually wet and where there is little or no free oxygen) and that is inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances does support, a prevalence of hydrophytic vegetation (plants typically found in wet habitats) typically adapted for life in saturated soil conditions. (20 ILCS 830/1-6)

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