Chapter 12
Legal Framework and Ethical Issues

Chapter Overview
Any floodplain management activity must be planned and carried out within the framework of federal, state and local law. The regulatory aspects of floodplain management – zoning, subdivision regulations, building codes, well and sanitary codes – usually are seen from the legal point of view as a somewhat specialized application of general land use law. Many of the same legal principles are involved. On the other hand, zoning and land use measures provide only a part of the legal framework for floodplain management. A complete treatment of the subject would require careful examination of a number of legal questions. This chapter provides a brief overview of legal issues involved in floodplain management, starting with water drainage. Ethical issues may arise regarding the involvement and responsibilities of the “professional” community (e.g., engineers, planners) in providing services that might contribute to inappropriate uses of riverine and coastal flood hazard areas; uses that could increase threats to lives and property and diminution of natural resources and functions. Some of these issues are examined.

Drainage Law
Drainage law is one dimension of specialized water law. The term “water law” in its most general sense refers to all those rules of conduct which have been established to resolve water-use conflicts and guide water-use decisions toward the goal of maximizing benefits to society. In this broad view, water law has a variety of dimensions. It encompasses such areas as the allocation of supply among competing users, quality protection, flood control, and drainage. Although these different functional areas are interrelated aspects of comprehensive water resources management, applicable law has tended to be developed independently in each area. Thus water law generally does not consist of a comprehensive, integrated body of legal principles for managing the resource, and problems of coordination among the different bodies of law frequently arise.

Drainage law has arisen through liability imposed by the courts when the acts of one landowner have adversely affected the property of another. It has generally involved the rights and duties of the “upper” landowner versus the rights and duties of the adjoining “lower” landowner.

Diffused surface water is the term applied to runoff of precipitation (rain and melting snow) that is diffused or spread out over the surface of the ground prior to its entry into a natural watercourse or other body of water. Diffused water may flow in surface depressions in concentrated form, but such water loses its identity as diffused water once the flow achieves the degree of permanence and meets the other requirements for classification as a natural watercourse. Floodwater that spills over the banks of a watercourse and flows in an uncontrolled or diffused manner over the floodplain is viewed in some states as diffused surface water and in other states as fugitive water from a watercourse. The two basic concerns with respect to diffused surface water are rights to use and rights to dispose. With regard to the right to use diffused water, it is considered, with few exceptions, to belong to the owner of the property where it is found. The right to dispose of such water or to otherwise protect property from its adverse effects is generally of greater legal concern than is the right to use.
Rights to Use
Nearly every state allows the landowner on whose land diffused surface water is found to capture and use it for whatever purpose he/she deems appropriate, although the rationale to justify such use does not emerge as a consistent body of law. Some cases speak of a right of capture, such as when one collects rainwater from a roof and funnels it into a barrel or cistern for use. Other cases speak in terms of an inherent right of the owner of the land to capture and use waters that he/she finds flowing in a diffused nature on the surface of his/her land, as a right emanating from ownership of the land. Other courts have used a variety of other justifications, but the salient observation is that the states uniformly allow the landowner to use diffused surface waters. Disputes sometimes arise, however, over the factual determination as to whether the surface water is in fact diffused or whether it forms a channel and thereby assumes the characteristics of a watercourse. If the former, the upper landowner may capture and detain it. If the latter, then either appropriation doctrines or reasonable use rules apply.

Rights to Dispose (Drainage)
Conflicts more often arise with respect to disposing of or draining diffused surface water than they do to rights of use. The courts in most states allow landowners to take reasonable steps to drain, obstruct, or divert diffused surface water in order to use, develop, improve, or prevent damage to their own property, but they must act reasonably and without negligence so that they do not cause undue harm or damage to the property interests of others.

The question of reasonableness usually depends upon the respective values and interests of the person who drains, obstructs, or diverts the water and the one who sustains damage as a result thereof. Thus, the rather uniform rule is that landowners may make reasonable improvements in the development and use of their property, and take reasonable steps to provide necessary drainage, even though some inconvenience may be caused to adjoining landowners, so long as the inconvenience is not unreasonable under the particular facts and circumstances.

The foregoing generalization indicates a gradual merger of two legal rules that are in substantial opposition to each other: the common enemy doctrine and the civil law doctrine into the reasonable use doctrine. Each of these doctrines is accepted in about a third of the states.

Common Enemy Doctrine
Under the common enemy doctrine, diffused surface water is considered to be a common enemy to all landowners which each may defend against as best he/she can without liability for injuries which his/her defensive actions impose on other parties. Thus they are free to obstruct the flow of diffused water from higher land or improve the natural drainage of their own property and thereby increase the burden on lower property owners. Some of the early legal cases were not even concerned as to whether the action of the landowner was unreasonable, negligent, or malicious, so long as he/she was diverting the surface water from his/her own land. Later cases required the conduct to be non-negligent and reasonable under the circumstances.

The theoretical principle of the common enemy doctrine reflects an absolute view of property rights that has undergone substantial modification in practice. The right of a landowner to engage in drainage modifications without liability to adversely affected landowners is generally restricted to situations in which such modifications are necessary to the development of property and are carried out with due care. With regard to the flow of diffused water from higher land, culverts or other drainage facilities must be included where feasible to prevent flooding of the upper property,
especially where diffused water customarily flows in concentrated form in a surface depression. One situation in which such facilities usually are not required consists of the normal construction of buildings. With regard to increasing the drainage burden on lower property, the common enemy doctrine has been modified in many states to prohibit concentration of runoff and discharge in mass onto lower property. However, some increase in runoff and acceleration of flow due to property development continues to be sanctioned.

Civil Law Doctrine
The civil law doctrine recognizes flowage easements for all natural drainage patterns, and holds that all landowners are subject to these easements. Thus, any particular landowner enjoys an easement over the land situated below him/her, and is entitled to discharge water from his/her land onto the lower land in the manner provided by nature. However, his/her land is subject to a similar easement in favor of the owner of the adjacent upland, and is thus required to receive from the upland whatever diffused surface water nature delivers.

The early cases under the civil law doctrine adhered strictly to natural drainage patterns, and did not permit landowners to alter the natural drainage flows so as to increase the volume or current of the flow, or to divert it into an area or channel other than the natural channel. Later cases allowed reasonable modifications so that diffused surface water could be obstructed or diverted and collected in drains, ditches and conduits and disposed of in a manner that would not unreasonably interfere with the rights of adjoining property owners.

Reasonable Use Doctrine
The doctrine of reasonable use is a compromise theory that falls between the other two with regard to whether alteration of natural drainage patterns is lawful. It is based on the theory that some modification of runoff is a necessary and proper consequence of property development, but such modification must be limited by considerations of reasonableness in relation to the resulting impact on others. Thus, the amount of modification is based on a case-by-case balancing of the utility of the drainage activity in question against the resulting harm. With regard to the damage-causing activity, factors that have been considered include the social value of the activity, its suitability for the location in question, the difficulty of preventing the damage, and the impact on the activity if compensation is required for resulting injury. Factors considered in determining the gravity of the harm have included the extent and character of the injury, the social value of the injured activity, its suitability to the location in question, and the difficulty for the injured party to avoid the harm.

The reasonable use doctrine represents an intermediate position on the issue of liability for drainage modification towards which changes in the common enemy and civil law doctrines have moved. Thus, the doctrines are much more similar in actual application than consideration of their underlying concepts alone would indicate.
Tennessee Courts

The general rule with respect to the use of diffused surface waters in most riparian water rights states (such as Tennessee) is that the owner of the land is entitled to its use on his/her property, but apparently there are no cases in Tennessee directly on this point.

Rather, the decisions concerning diffused waters in Tennessee have involved problems in disposing of these waters, rather than the right to their use. In this regard, the Tennessee court follows the rule that the owner of an upper tract of land has an easement or servitude of drainage over the lower land for the natural drainage of surface waters (civil law doctrine). If the lower landowner dams or obstructs the drainage of this water, causing the higher land to be flooded, he/she is liable to the upper landowner. If the lower land is raised by the accumulation and deposit of soil, there is no longer a responsibility to receive drainage water, but the lower landowner cannot force the upper landowner to develop another method of disposing of this water. While the lower property owner may not cast these surface waters back on the upper land, at least one case in Tennessee has allowed the construction of an embankment by the lower landowner to protect himself where the flow of water had been greatly increased and concentrated by the construction of ditches along streets, and the water would flood his land in the absence of these barriers.

Although an upper landowner has a right to the natural drainage of surface water from his/her land onto lower land, he/she may not dam up or gather the surface water in an artificial manner and discharge it in concentrated or unnatural quantities upon the lower lands. Further, while the upper landowner may alter the natural conditions of his/her land to protect it from injury from water, he/she cannot act unreasonably to the damage of lower property owners (reasonable use).

The University of Tennessee’s Center for Government Training and the Municipal Technical Advisory Service have prepared a manual for municipal officials titled “Drainage Management” (copy of document cover on next page). A section of the manual covers Potential Legal Problems and Possible Solutions (copied and included herein).

Summary

Under any doctrine, the best protection is to carry out the activity in such a manner as to keep the subsequent runoff as close as possible to runoff conditions in the pre-activity natural state – in quantity, velocity and location.

From a legal point of view, every piece of property involves stormwater runoff in some way as both a contributor and recipient. The stormwater aspects of the property may be one of the controlling factors on how to develop or even whether to develop the site.

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1 A riparian system of water rights associates the right to use water with the ownership of land beside or within which water flows. This system has been adopted by most states east of the Mississippi River where water is relatively abundant. In areas where water is relatively scarce, typically west of the Mississippi River, the doctrine of prior appropriation generally rules. Water allocation rests upon the fundamental maxim, “first in time, first in right.” The first person to use the water acquires a right to its future use against all later users. Water rights are treated similarly to the rights of real property and can be conveyed, mortgaged, and encumbered independently of the land on which the water originates, or on which it is used.
Cover of The University of Tennessee Municipal Training Drainage Management Report.
II. POTENTIAL LEGAL PROBLEMS AND POSSIBLE SOLUTIONS

Scope

Common, Statutory and Case Law all address the liability of a municipality concerning stormwater. This section includes questions which have arisen concerning this liability. The answers are supplied by legal consultants on municipal law from the Municipal Technical Advisory Service.

The Law

If the city adopts a stormwater management plan or ordinance, does this increase or reduce their liability?

To determine whether a drain or sewer is necessary, and its location and general plan, is the exercise of a legislative function; and a city is not responsible in a private action for its failure to exercise its discretion in establishing one. Chattanooga v. Reid, 103 Tenn. 616, 53, S.W.

Dixon v. City of Nashville; 29 Tenn. App. 282, 203 S.W. 2d 128 (1945). But it will be liable if, after they are established, the city authorizes or with knowledge permits them to be so negligently constructed or operated by its agents as to become a nuisance detrimental to health or property. Knoxville v. Glasing, 111 Tenn. 234, 76 S.W. 814; Dixon v. City of Nashville; 59 A.L.R.2d 288. The fact that the drainage plans were adopted by the city engineer cannot relieve the city of liability for creating and maintaining a nuisance. Dixon v. City of Nashville.

It should be kept in mind, however, that it is not only broad planning decisions, such as whether to build a sewer system, the extent of the system and the amount of be spent therein, for which the municipality is immune. Once the municipality determines to construct the sewer, it enters upon an undertaking which, in all its details, requires the use of care, for the work is then ministerial. McQuillin on Municipal Corporations, 3rd Ed. Rev. 53.121.

Immunity from suit of governmental entities is removed for injury proximately caused by a negligent act or omission of any employee within the scope of his employment except if the injury arises out of the exercise or the failure to exercise or perform a discretionary function, whether or not the discretion is abused. T.C.A. 29-20-205(1).
The "discretionary function" exception is similar to provisions in Federal Tort Claims Act. The discretionary function exemption in that Act has been construed to apply only in cases where government officials were acting at the policy making level or where exercising powers of a policy nature, and not in cases where government officials were operating under mandatory statutes or regulations which they had a legal duty to observe and implement. Donohue v. United States (1977, D.C. Mich.) 437 F. Supp. 836. Existence of discretionary function for governmental liability under the Federal Tort Claims Act ultimately rests on characterization of challenged behavior as "policy" or "operations"; relevant considerations include whether the nature of judgment exercised called for policy considerations and where act complained of is the result of judgment or decision that government official be free to make without fear of vexatious or fictitious suits and alleged personal liability. Ench v. United States (1980, CA7 Wis.) 630 F2d 525.

Although rainfall is extraordinary, if it is such as has occasionally occurred in the past and should reasonably be expected to occur in the future, a municipality will be liable for overflow caused by inadequacy in the planning of sewers of a size sufficient to prevent damage to private property. 57 Am. Jur. 2d, Municipal Etc. Tort Liability, 187.

**What is the definition of natural waterways?**

A great variety of terms such as "depression," "drainway," "channel," "watercourse," "waterway," "swale," "draw," "gulch," "ravine," "ditch," etc. have been employed in describing natural ways or means for the drainage of surface water, or the course of such drainage, and there is considerable variance in the rules which obtain in different jurisdictions as to the kind and physical characteristics of such ways, means or courses.

The view taken by some authorities is that if the conformation of the land is such as to give to the surface water flowing from one tract to the other a fixed and determinate course, so as to discharge it uniformly on the servent tract as a fixed and determinate point, the course thus uniformly followed by the water in its flow is a watercourse within the meaning of the rules applicable to the drainage of surface water. According to some decisions it does not seem important that the force of the water flowing from one tract to the other has been sufficient to create a channel or a canal having definite and well marked sides or banks. Others, however, hold that there must be a distinct channel, the bed of a stream, with well-defined banks, cut through the turf and into the soil by the flowing water, presenting on a casual glance the evidences of the frequent running of water, and not a mere depression. 78 Am. Jur. Waters, 135. Several jurisdictions have broad definitions of water courses which include almost any definable channel. Water and Water Rights, the Allen Smith Company, Publishers, Indianapolis, Ind., (1972).
What is the definition of a drainage ditch?

The work "ditch" has no technical or exact meaning, but is mostly used to designate a trench on the surface of the ground. It has been defined or employed as meaning a hollow or open space in the ground, natural or artificial, open or covered; also a right-of-way for the passage of water. 277 C.J.S., p. 828.

Does a city have the legal responsibility for storm water which runs from one piece of private property to another?

The construction of sewers and drains involves the exercise of discretionary powers and a municipality is not bound to construct. 59 Am. Jur. 2d, Municipal Corporation, 571; Horton v. Nashville, 72 Tenn. 39 (1879); Miller v. Brentwood, Tenn. App., 548 SW2d 876 (1977). The mere fact that a nuisance exists and has occasioned an injury to a third person, does not render a city liable therefor, provided the nuisance was not created or maintained the city itself. Chattanooga v. Reid, 103 Tenn. 616, 53 S.W. 937 (1899), Miller v. Brentwood.

The plaintiffs in Miller v. Brentwood were homeowners in a subdivision. A drainage ditch passed through their properties which were in a lower portion of the subdivision. They sued the city alleging that by granting building permits for construction which reduced the absorption of rainfall into the earth, the city had authorized and permitted an increase in the runoff and rainfall which overtaxed the drainage ditch thereby causing flooding of their properties.

The lower court found that the city caused the increased flooding and created an actionable nuisance and (1) enjoined the city from authorizing or issuing any further building permits for projects which would direct increased storm water into the easements flowing past or through plaintiff's lots and (2) ordered the city to prepare and file with the court a uniform plan to render the city's water drainage adequate so as to abate the nuisance.

The Court of Appeals, Middle Section, reversed the lower court and dismissed the suit. Miller v. Brentwood, 548 S.W.2d 818 (1977). Cert. denied by S. Ct. Tenn. March 18, 1977. The court held that there was no liability of the city for damages or injunctive process.

No right of action is recognized against a municipality for issuing a permit for construction in accordance with existing laws and regulations. Correspondingly, there is no authority for the courts to enjoin the issuance of a permit, otherwise lawful, for the reason that its use might result in a private injury.
There were other reasons why the court thought enjoining the city from issuing building permits inappropriate. The watershed which drained into the drainage ditch was not entirely within the city limits. Other construction outside the city contributed to the runoff, and it would be inappropriate to restrain the city from allowing construction within the city and leave the remainder of the watershed free to develop.

Also, to enjoin the city from issuing permit for construction would the effect of transferring the plaintiff's subservient status. Under the civil law rule of surface water the upper land has an easement for drainage in its natural flow over lower lands. The court also held that there is no authority for compelling a city to construct an artificial drainage sewer.

In the Brentwood case, there was not interference with drainage, except that construction may have increased runoff.

Does a city have legal responsibility for storm water which runs from public property across private property?

The rule that one person cannot change the course of drainage and cast upon the land of another water which naturally would not have flowed there applies equally to municipal corporations, so that a municipal corporation incurs the same liability as an individual when it damages the land of another person by casting thereon water which would not have flowed there naturally, either by changing the course of drainage, by causing surface water to accumulate and flow onto the land of another person in greater quantities than would have flowed there, or by collecting surface water into artificial channels in such quantities that it overflows onto adjoining property. 57 Am. Jur. 2d Municipal Etc. Tort Liability 237; Dixon v. City of Nashville, 29 Tenn. App. 282, 203, S.W. 2d 178 (1946); Butts v. City of South Fulton Ct. App. Tenn., 565 S.W. 2d 879 (1978); City of Sweetwater v. Fate, Ch. App. Tenn., 59 S.W. 480 (1900); Kind v. Johnson City, 63 Tenn. App. 666, 478 S.W. 2d 63 (1970).

What are the legal problems involved in a large development rerouting ditches into other drainage area?

The right to accumulate and discharge surface water into a natural watercourse is subject to the limitation that an owner of property may not drain into a stream surface waters which otherwise would not flow in that direction. 78 Am. Jur. Waters, 133.

A landowner cannot divert into a watercourse diffused surface waters from an area that would not naturally have drained into the watercourse. Water and Water Rights, The Allen Smith Company, Publishers, Indianapolis, Ind. (1972).
What are the problems involved in combining several natural waterways into one or, conversely, splitting one natural waterway into several?

A natural drainway must be kept open to carry water into streams, and as against the rights of the upper proprietor, the lower proprietor cannot obstruct surface water when it has found its way and is running in a natural drainage channel or depression. It is the duty of a lower landowner who builds a structure across a natural drainway to provide for the natural passage through such obstruction of all the water which may be reasonable anticipated to drain therein, and this is a continuing duty. 78 Am Jur. 2d Waters, 134.

A landowner has an easement of flow for drainage of surface waters in its natural flow over the lower land of a neighboring owner and if the latter places an obstruction of any character upon his land that arrests this drainage and thereby causes injury to the form, an action lies for damages. Talley v. Baker, 3 Tenn. App. 321 (1926).

The right to accumulate and discharge surface water into a natural watercourse is subject to the general limitation that it be done in the reasonable use of land, and according to the generally accepted view, it would seem that where, by means of ditches or drains, so much water is thrown into a stream as to fill it beyond its natural capacity, and to cause it to flood and overflow the lands of a lower proprietor, the upper proprietor, for so doing, is liable for the resulting damage. 78 Am Jur. 2d Waters, 133.

Problems in combining: natural watercourses must be kept open to accept water from upper land. Combined watercourse may fill watercourse on lower land beyond its natural capacity causing it to flood and overflow lower lands.

Problems with splitting: discharging water in concentrated form and unnatural quantities at points on the lower land where there is no natural watercourses.

The owner of higher lands is liable when he collects the water and pours it in a concentrated for or unnatural quantities upon the lower lands. Louisville N.R. Co. v. Hayes, 79 Tenn. 382 (1883); Dixon v. City of Nashville, 29 Tenn. App. 282, 203 S.W.2d 178 (1946).

If the waterway is a natural stream, there is a problem of riparian rights. Riparian owners have the right to have the stream flow in its natural course and volume or to have the body of water remain in its natural conditions. 78 Am Jur. 2d Waters 765.
The owner of land, across or over which a stream flows, has a right to have it flow over his land in its natural channels, without unreasonable detention, undiminished in quantity, and unimpaired in quality, except so far as it is inseparable from a reasonable use of the water of the stream for the ordinary and useful purposes of life by those above him on the stream. *Cox v. Howell*, 109 Tenn. 130, 65 S.W. 868 (1901).

The sink hole case, *Slatten v. Mitchell*, involved the right of the owner of higher land to build a wall along the line between his property and a public highway to keep surface water off his land and force it to flow down the highway ditch upon the land below. It was found that the owners of still higher lands had constructed lateral ditches to drain surface water into the ditch along the highway thus preventing the natural diffusion and absorption of water into the soil above defendant's lands. It was held that the defendant's land were burdened only with surface water which reached it under natural conditions and that the defendant had a right to build a wall along the highway with an opening of such size as would permit only the normal mount of surface water to enter upon his lands. The effect of that holding is that the construction of lateral ditches which altered the course of natural drainage, preventing or slowing absorption of water into the soil and hastening and concentrating its flow, placed an undue burden on defendant's land which he was warranted in removing by construction of the wall.

In the *Slatten v. Mitchell* case surface water which would have been absorbed to some degree or diffused, or some of which may not have reached the land and sink hole, was diverted by the lateral ditches into the roadside ditch and was concentrated in unnatural quantities on the land of the farmer.

**How can the city enforce maintenance of drainage culverts on private property?**

For an injury growing out of an obstruction of a natural drainage, a mandatory injunction is proper because successive suits for damages would not furnish an adequate remedy. *Wilson v. Louisville & N.R. Co.*, 12 Tenn. App. 327. If city property is flooded as result of obstruction of natural drainage course, injunction.

A landowner has an easement for drainage for surface water in its natural flow over the land of a lower owner. *Carland v. Aurin*, 103 Tenn. 555, 53 S.W. 940 (1899).

**Who is liable if an owner puts leaves in a ditch for the city to pick up and the leaves stop up a culvert and a child is drowned?**
Immunity from suit of governmental entities is removed for an injury caused by a defective, unsafe, or dangerous condition of any street, alley, sidewalk or highway, owned and controlled by such governmental entity. T.C.A. 29-20-203(a). Does not apply unless constructive and/or actual notice to governmental entity of such condition be alleged and proved. T.C.A. 29-20-203(b).

Immunity from suit of a governmental entity is removed for any injury caused by the dangerous or defective condition of any public building, structure, dam, reservoir or other public improvement owned and controlled by such governmental entity. T.C.A. 29-20-204. Does not apply unless constructive and/or actual notice to governmental entity of such condition be alleged and proved. T.C.A. 29-20-204(b).

Immunity from suit of all governmental entities is removed for injury proximately caused by a negligent act or omission of an employee within the scope of his employment (exceptions, but failure to keep drain free from obstruction not one.) T.C.A. 29-20-205.

The duty of maintaining sewers and drains in good repair includes the obligation to keep them free from obstructions, and a municipality failing to do so is liable to any person injured by such negligence. 59 A.L.R.2d 281, 5. It is the duty of a municipality to remove an obstruction in a drain or sewer within a reasonable time after actual or constructive notice thereof, and its failure to do so renders it liable to one injured thereby. 59 A.L.R.2d 281, 6.

A municipality has been held liable for obstructions in its drains or sewers by third persons, of which it had notice. 59 A.L.R.2d 281, 17.

Would a retention basin filled with water during a storm be classified as an attractive nuisance with an inherent liability?

The elements of attractive nuisance:

(a) The place where the condition exists is one upon which the possessor knows or has reason to know that children are likely to pass, and

(b) The condition is one which the possessor knows or has reason to know and which he realizes or should realize will involve an unreasonable risk of death or serious bodily harm to such children, and

(c) The children because of their youth do not discover the condition or realize the risk involved in intermeddling with or coming within the area made dangerous by it, and

(d) The utility to the possessor of maintaining the condition and the burden of eliminating the danger are slight as compared with the risks to children involved, and
(e) The possessor fails to exercise reasonable care to eliminate the danger or otherwise to protect the children. Metropolitan Govt. of Nashville v. Counts, 541 S.W. 2d 133 (Tenn., 1976).

Whether a retention basin filled with water during a stream would be an attractive nuisance would depend on a showing of those elements.

The Tennessee case have consistently applied the rule that absent evidence of an unusual or hidden danger - a danger other than that incident to all bodies of water - a landowner will not be held liable for the death of a trespassing child by drowning in a pond or other body of water maintained on his premises. Metropolitan Govt. of Nashville v. Counts.

It is well established that the attractive nuisance doctrine does not apply to situations in which the condition causing the harm is one involving a common and obvious danger. Pardue v. City of Sweetwater, 54 Tenn. App. 286, 300 S.W. 2d 673 (1965); Ray v. Hutchison, 17 Tenn. App. 477, 68 S.W. 2d 948 (1933).

In the Metro case the court compared the utility of maintaining the condition, and the burden of eliminating any danger, with the risk of harm to trespassing children. In that case the condition was a pond serving the useful function of watering livestock. The court took the view that the risk of drowning in the pond was slight, there being no unusual or hidden danger present, that it would be an unreasonable burden to require the maintenance of a full-time guard or the erection of a fence which would effectively prevent the trespass of children.

Does the city have any recourse against a railroad because of the cost involved in cleaning trash and debris which collects on supports for bridges under railroads, and does the city have any legal recourse against the railroad in the case of inadequately sized culverts under railroads which cause pending conditions?

The power of municipal corporations with respect to nuisances generally extends to nuisances arising from the use, action or presence of water. It has been held that a municipality, acting by virtue of its public power, when necessary to protect the public health, may, at the expense of the owner of the land, fill or require to be filled, depressions in which surface water stagnates. It has been held, however, that if a pond of water accumulates on land, from natural causes, in such quantities that in the process of evaporation, noxious or deleterious gases are emitted, injurious to the public health and to the health of persons residing in the vicinity, the owner cannot be held answerable for creating or maintaining a nuisance, nor be

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compelled to abate the pond as such, when he has not, by his own act or negligence, contributed to bring about the condition complained of. 78 Am Jur 2d, Waters, 374.

The public authorities may summarily enter upon real estate and remedy conditions which endanger the public health, and may require the owner of the property to pay the expenses thus incurred. 58 Am Jur 2d, Nuisances, 207.

If because of inadequately sized culverts municipal property is flooded, the railroad would be liable.

It is duty of a railroad in providing a culvert to carry off surface water to provide a passage large enough to carry off the greatest amount that may be expected in extraordinary rainfall. Tennessee Cent. Ry. v. Askew, 11 Tenn. App. 406 (1930).

Although land may be subject to the servitude of receiving the waters that flow naturally on, to, or through it from an adjoining estate above, it has been held that the owner of the latter estate has no right to enter at will upon the land for the purpose of cleaning out or removing obstructions in order to enjoy the servitude, but it is only entitled to ask the owner to remove the obstructions, and upon his failure to do so, may compel such action by legal process. 78 Am Jur. 2d, Waters, 140.

If a culvert across private property which carries water from other properties has been undersized by the property owner, who should pay for the upsizing?

It is the duty of railroad companies to provide culverts or other means for the safe passage of accumulated water, and they are liable in damages for injuries to adjacent lands by overflow or back-water, caused by their failure or neglect to perform this duty. They must provide against the recurrence of unusual and extraordinary accumulations which have once happened, and are conclusively presumed to know the habits of streams adjacent to the tracts. Carriger v. Railroad Company, 75 Tenn. 378 (1881); Tennessee Central R. Co. v. Askew, 11 Tenn. App. 406 (1930); Davis v. Louisville & N.R. Co., 147 Tenn., 1, 244 S.W. 433 (1922). Although the plaintiff may own the ultimate fee, the railroad has a duty to keep the ditches open to take care of natural drainage, and the fact that the plaintiff did not go on the right-of-way and himself open the ditch or did not dig one on his land in lieu of the one on the right-of-way, is not a bar of his right to recover damages from overflow sustained by him because of the railroad's failure to keep the drainage ditch open. C.N.O. & T.P. Ry. Co. v. Moon, 2 Tenn. App. 477 (1926). The duty of maintaining a railroad in such a manner as not to obstruct natural drainage is a continuing duty. Wilson v. Louisville & N.R. Co., 12 Tenn. App. 329 (1930).
It is the duty of a railroad in providing a culvert to carry off surface water and provide a passage large enough to carry off the greatest amount that may be expected in extraordinary rainfall. *Tennessee Cent. Ry. v. Askel.*

The same rule applies to other property owners and municipalities. Although rainfall is extraordinary, if it is such as has occasionally occurred in the past and should reasonably be expected to occur in the future, a municipality will be liable for overflow caused by inadequacy in the planning of sewers of a size sufficient to prevent damage to private property. *57 Am. Jur. 2d, Municipal Etc. Tort Liability,* 187.

**Should a city request easements for all ditches and culverts on private property and condemn if the easements are not given?**

Providing drains is discretionary and a municipality is not bound to provide drains.

**If the city replaces a culvert at its expense on private property, does the culvert become city property, therefore causing maintenance liability and obligation?**

A municipality has occasionally been held liable for damages due to the obstruction of a drain or sewer, even when such drain or sewer has been constructed upon private property. *59 A.L.R.2d 314.*

Ordinarily the city is only liable for the clogging or obstruction of the drains and sewers maintained by it or over which it has control with the result that it is not liable for the clogging of a drain or sewer maintained and controlled by a private property owner. *59 A.L.R. 2d 314.*

It would appear that before the city could be liable it would have to be shown that the city adopted the drain for drainage purposes and assumed control over it.

**Is the city legally liable for permitting a shopping center or other development to install certain drainage facilities if it is proven that these facilities are inadequate and cause downstream damage?**

The Governmental Tort Liability Act provides that "Except as may be otherwise provided in [The Act] all governmental entities shall be immune from suit for any injury which may result from the activities of said governmental entities wherein said governmental entities are engaged in the exercise and discharge of any of their functions, governmental or proprietary." *T.C.A. 29-20-201.* Immunity from suit is removed for injury proximately caused by a negligent act or omission of any employee within the scope of his employment except if the injury arises out of the issuance, denial, suspension or revocation of, or by the failure or refusal to issue,
deny, suspend or revoke, any permit license, certificate, approval, order or similar authorization. T.C.A. 29-20-205(3).

Immunity from suit not removed where planning commission approved subdivision plat waiving its rock grading and compacting regulations. Foley v. Hamilton. (Tenn. 1983) 569 S.W.2d 356.

What is the precedent of the law concerning drainage going into sink holes and stopping up sink holes?

In Slatten v. Mitchell, water flowing down a roadside ditch overflowed and ran into sink holes on a farmer's land. It was contended that the sinks were natural means of disposing of the water, but it was not so held by the court. Apparently the sink holes were where the land had sunk, and when filled, the farmer's land was flooded. Apparently they were not underground streams which could be considered an underground watercourse.

In a railroad case, Carriger v. Railroad Company, 75 Tenn. 388 (1881), the railroad built an embankment which caused surface water to overflow land. Before the embankment was built, water went into sink holes which were adequate to take care of the surface water. After the embankment was built, the water flowed onto the land because there was no culvert. The sink holes were filled and the land was flooded.

Does the city have the right to set and require floor elevations for building in flood prone areas but not in flood ways or flood way zoning?

To be valid, a building regulation must be reasonable and not arbitrary, and it must have a tendency to promote the public health, safety, morals, or general welfare. 13 Am. Jur. 2d, Buildings, 2.

Should the city in its roadway requirements provide for the passage of cars during a rainfall in an unflooded portion of the street?

The duty of the public authority to exercise ordinary care to keep its highways and streets reasonably safe for travelers does not require the public authority to guard the traveling public from such normal hazards as ordinary puddles of water in the way, but where the accumulation of water is so wide or deep as to constitute a real danger not reasonably to be anticipated by users of the way, the public authority has the duty to eliminate the hazard or to warn the public of its presence or barricade the way. 39 Am. Jur. Highways, Streets and Bridges, 461. 61ALR.2d 427. Owens v. Seattle. 49 Wash. 2d187, 299 P2d 560; Smith v. Commonwealth, Department of Highways (Ky.) 468 SW2d 790; Ehlinger v. State (Iowa) 237 N.W.2d 734; Hass v. Firestone Tire & Rubber Co. (1976 Okla) 563 P2d 620; Pickens v. Clark Overlook Estates, Inc. (1980 Pa Super) 421 A2d 1198;

Outline the control of the city outside of the city limits; for instance, the five mile planning commission control.

In the event the state planning office establishes a planning region composed of a single municipality together with territory adjoining but outside of such municipality, no part of which is more than 5 miles beyond the limits of such municipality, it may designate the planning commission of the municipality as the regional planning commission, and when so designated the municipal planning commission when acting as a regional commission for such region, shall have all the powers and be governed by the provisions in Chapter 3, Title 13, T.C.A. or other statutory provisions relating to regional planning commissions. T.C.A. 13-3-102. The regional planning commission shall adopt regulations governing the subdivision of land within its jurisdiction. Such regulations may provide for the production of adequate drainage facilities. T.C.A. 13-3-403.
Floodplain Management Regulations
Floodplain management regulations are not adopted or enforced by local communities in a vacuum, but rather, operate in the context of state constitutional law and enabling legislation. Regulation of floodplain management is primarily a local government responsibility, but, generally, states must enact enabling legislation to permit local governments and state agencies to exercise regulatory authority over floodplains.

Virtually every state in the country has adopted legislation permitting various local units of government to adopt local laws restricting and regulating the use of both public and private lands. However, such regulations must be for a public purpose or benefit, or promote the health and safety of the public. These laws fall under what are referred to as “police powers.”

State enabling legislation permits regulation of floodplains and other hazard areas by the local government through the use of:
∞ Floodplain management ordinances
∞ Building codes to ensure safe construction
∞ Zoning powers which control land use
∞ Review and approval authority for subdivisions or other development of land
∞ Stormwater management regulations which try to control runoff and erosion
∞ General police powers that enable a local unit of government to protect the general health and safety of residents through specific regulation
∞ Official policies denying the extension of utilities and facilities that encourage or support additional floodplain development

Constitutional Issues
There are three principal constitutional issues in arguments concerning government regulation of land use.

First, the prohibition against taking private property for public use without just compensation. The United States Constitution requires government (at any level) to pay just compensation if private property is taken for public use. The Constitution contains this provision because in the late 1700’s in England the King could take property and use it for his own purpose (quartering of troops, hunting, farming, etc.) without compensation.

Fifth Amendment – “No person … [shall] be deprived of life, liberty or property, without due process of law; nor shall private property be taken for public use without just compensation.”

Under statutory authority, governmental bodies possess the right to acquire, usually through official condemnation proceedings, privately owned land if that acquisition clearly is for a demonstrably public purpose. This is called the power of eminent domain.

The governmental unit, in exchange for taking the land, is obligated to compensate the landowner for the fair market value of that land. Some common examples of this process are:
∞ The acquisition of land for roads and public works projects
∞ The development of public park land
∞ Utility acquisition of rights of way for transmission lines, etc.

When the power of eminent domain – the power of a government to acquire property whether the owner wishes to part with it or not – is exercised, the requirement of compensation is clear. The more difficult questions arise when a government uses its inherent police powers – the power to
enact measures to protect the public health, safety, morals and welfare – to regulate the use of private property in a manner that the owner’s economic use of the property is diminished. This can raise the question of whether a “taking” has occurred if the restrictions deprive the owner of substantial economic return on the use of his/her property. In a regulatory sense, a taking may occur when the government enacts a law, standard, or regulation that limits the use of the land to the extent that the owner has been deprived of all economic interest in using the property. Thus, the government has “taken” the property. This is known as inverse condemnation.

This issue may particularly arise where property is included in a designated floodway with subsequent tight controls over future land use. In recent years there has been increasing interest in the taking issue, mostly related to wetlands and endangered species issues. The “taking” of property remains a controversial issue.

In cases where a court has found a taking, the governmental body has been required to compensate the property owner. Often the regulations are retracted as applied to that property.

Second, is the issue of equal protection. The law or ordinance must be nondiscriminatory in its treatment of individuals in similar circumstances. If property owners “x” and “y” are subject to the same degree of hazard, then they should be subject to the same type or degree of land use restrictions. This issue is important in the designation of floodway boundaries when employing the “equal degree of encroachment” factor discussed in Chapter Five.

Fourteenth Amendment – “…nor shall any State deprive any person of life, liberty, or property, without due process of law; nor shall deny any person within its jurisdiction the equal protection of the laws.”

Third, is the issue of due process. This involves requirements that incorporate basic fairness into the legal process. Was a notice and public hearing opportunity given to those affected by the regulation (not secretly passed in a closed meeting)? Is it arbitrarily applied? Is it reasonably related to its declared purposes?

In determining the Constitutional validity of regulations, courts first look at the general validity of the regulations and then at their specific validity as applied to a particular landowner. Does the unit of government adopting the regulation have the authority (given by the state)? Then the courts decide whether the regulations:

- Serve valid police power objectives
- Have a reasonable prospect in the achievement of these objectives
- Afford equal treatment of similarly situated landowners
- Permit reasonable private use of land so a “taking” does not occur

Any legislative act, including floodplain regulations, is presumed constitutional because the statute or ordinance passed through the legislative process. The courts recognize the separation of judicial and legislative powers and defer to legislative judgment unless it is clearly erroneous.

Usually the court determines only the constitutionality of enforcing a particular restriction against a complaining landowner. The usual test for the validity of the regulation is the reasonableness of the restrictions as applied to the individual landowner. Emphasis is placed on the application of the regulation, not the regulation itself.

———Legal Framework and Ethical Issues———

12-19
Summary
Floodplain regulations are likely to be held valid if:

- They are adopted in compliance with statutory requirements
- They treat similarly situated individuals equally
- They are based on sound data
- They balance threats of flood damage and land-use needs
- They permit some private economic land uses

Do floodplain regulations take private property without compensation? Although the topic of taking is complicated and the rules vary somewhat from state to state, some general observations and conclusions can be summarized here.

With respect to constitutional claims against governmental units for reducing property values by floodplain regulations of the type required for community participation in the National Flood Insurance Program (NFIP), case law shows that the potential for successful suits is extremely low. The land use standards of the NFIP have been challenged as a taking in a number of cases. However, the courts have consistently, and sometimes overwhelmingly, upheld land use regulations because of the direct impact on the safety of the public. In other words, a locality is on sound legal ground in implementing the provisions of its local floodplain management ordinance.

Because the standards for community participation in the NFIP contain construction criteria that apply to all floodprone areas, so that any floodprone site may be built on, the presence of this inclusive construction criteria means that, if appropriately applied, the local regulations would never result in inverse condemnation. Therefore, not a single taking case has succeeded based upon the performance-oriented standards of the National Flood Insurance Program. This is a highly significant fact given the existence of more than 18,500 community floodplain management ordinances.

Ethical Issues in Providing Professional Services
Most professions are subject to practice limitations set forth by state licensing boards and/or their own code of ethics. These could include not offering professional services without being licensed to practice that profession, not practicing outside the field of expertise, or otherwise acting in an “unethical” manner.

One of the central problems in coping with disasters is the belief that technology can be used to control nature. This is a common theme in the engineering profession, i.e., students are educated and trained to look at “engineering” approaches and solutions to societal situations. Although engineered projects, typically flood control measures described in Chapter 7 (and later covered in more detail in Chapter 16) have significantly reduced the vulnerability of some areas to flooding, many have not addressed a broader issue. Engineering design and construction standards typically fail to address the appropriateness of the land use. Should engineers continue to aid and abet development and occupancy of hazardous areas by devising ways to build bigger and/or stronger structures? This subject should be examined through classroom discussions and preparation of scholarly papers on both sides of the issue.