



**NO ADVERSE IMPACT
FLOODPLAIN MANAGEMENT
AND
THE COURTS**

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PREFACE

This paper discusses selected legal issues associated with a “no adverse impact” approach to floodplain management. It is intended primarily for government lawyers, lawyers who advise such government officials as land planners, legislators, and natural hazard managers, and lawyers who defend governments against natural hazard-related common law or constitutional suits. The secondary audience is made up of federal, state, and local government officials, regulators, academics, legislators, and others whose duties and decisions can affect or reduce flood hazards. Given the primary audience, many case law citations have been included in the paper.

Readers should note that this paper addresses the general law of the United States. Anyone wishing for more specific guidance pertaining to a certain state should contact a local attorney.

The paper is based, in part, upon a review of floodplain cases from the last 15 years. Research was carried out by the author and by Todd Mathes, a law student at the Albany Law School. The paper is also based upon earlier surveys of flood, erosion, and other natural hazard cases carried out by the author in preparing a 1993 report, *The Law of Floods and Other Natural Hazards*, which was funded by the National Science Foundation. For other legal work by the author on related subjects see the citations listed in the Selected Bibliography at the end of this paper.

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EXECUTIVE SUMMARY

This paper examines the “no adverse impact” approach for local floodplain management from several legal perspectives. Under such an approach, being promoted as No Adverse Impact floodplain management (or NAI floodplain management) by the Association of State Floodplain Managers, a community manages its public and private development and redevelopment (including regulatory permitting, public works projects, and other activities) according to the principle of avoiding detrimental impacts anywhere in the watershed—such as increased flood peaks or flood stages, higher flood velocities, erosion and sedimentation, or other adverse consequences. A local government using NAI floodplain management would anticipate and estimate such adverse impacts, prevent them if possible and, if not, ensure that they are mitigated.

Local officials and the attorneys that advise and represent them consistently express concern about susceptibility to lawsuits brought by people who believe either that they have suffered property damage from flooding or erosion as a result of public (local government) actions, or that they have been deprived of the use of their property (it has been “taken”) as a result of local government regulations. The caution demonstrated by local officials is understandable, particularly when they are considering adoption of a broad approach, such as NAI floodplain management. This paper, therefore, explores both of those concerns (and related ones) by examining (1) the relationship of a no adverse impact approach to landowner common law rights and duties pertaining to flooding and erosion, and (2) the constitutionality of floodplain regulations that incorporate a no adverse impact standard.

Is a no adverse impact approach consistent with common law rights and duties? Will it reduce the potential for successful suits against communities (e.g., nuisance, negligence) by private landowners for increasing flood and erosion hazards on private lands? From a common law perspective, a no adverse impact approach for floodplain management coincides, overall, with traditional, truly ancient common law public and private landowner rights and duties with regard to the use of lands and waters. Courts have long followed the maxim “Sic utere tuo ut alienum non laedas,” or “so use your own property that you do not injure another’s property.” See *Keystone Bituminous Coal Association v. DeBenedictis*, 107 S. Ct. 1232 (1987), and many cases cited therein. This maxim characterizes overall landowner rights and duties pursuant to common law nuisance, trespass, strict liability, negligence, riparian rights, surface water law rights and duties (in many jurisdictions), and statutory liability. At common law, no landowner (public or private) has a right to use his or her land in a manner that substantially increases flood or erosion damage on adjacent lands except in the dwindling number of jurisdictions that apply the “common enemy” doctrine to diffused surface or flood waters.

Communities that adhere to a no adverse impact approach in public decisionmaking and activities that affect the floodplains will decrease the potential for successful liability suits from a broad range of government activities, such as road and bridge building, installation of stormwater facilities, building flood control works, grading, construction of public buildings, approving subdivisions and accepting dedications of public works, and issuing building permits.

Will courts uphold community floodplain regulations that contain a no adverse impact standard against “takings” and other constitutional challenges to regulations? From a

constitutional law perspective, courts are very likely to uphold community regulations that adopt a no adverse impact performance standard against claims of unreasonableness or “taking” of private property without payment of just compensation. This is particularly true if there is some flexibility in the regulations. Courts have broadly and consistently upheld state and local performance-oriented floodplain regulations (including many that exceed the minimum National Flood Insurance Program (NFIP) standards administered by the Federal Emergency Management Agency (FEMA)) against taking challenges. Recent U.S. Supreme Court decisions have not changed this trend.

Courts are likely to uphold a no adverse impact standard not only because of this general support, but because such a standard is consistent with overall common law rights and duties. Courts have reasoned that regulations take nothing from landowners when they enforce common law rights and duties. Courts have broadly upheld regulations designed to prevent landowners from creating nuisances or undertaking activities that violate other common law private property concepts, ruling that they are not “takings,” in part because no landowner has a “right” to create a nuisance or violate the private property rights of others, even in instances in which this may have a significant impact on the landowner.

Courts are likely to uphold not only a broad no adverse impact performance goal or standard but also the more specific implementing regulations for such a standard that tightly control development in floodways, coastal high hazard areas, and other high risk zones. They are also likely to uphold very stringent regulations for small strips of land (e.g., setbacks) and open space zoning for floodplains where there are economically viable uses such as forestry or agriculture. Communities are likely to encounter significant “taking” problems only in instances in which floodplain regulations permanently deny all economic use of entire floodplain parcels.

PART 1

INTRODUCTION

Introduction

Part 1 of this paper briefly explores the no adverse impact goal. Part 2 discusses community liability for increasing flood and erosion damage on private lands under common law theories and how a no adverse impact goal may help reduce such liability. In Part 3 the paper considers the constitutionality of community regulations (zoning, building codes, and subdivision controls) that incorporate a no adverse impact standard in the face of “takings” challenges and various types of implementing regulations. Finally, in Part 4, the paper offers recommendations to help communities avoid common law liability and constitutional problems with no adverse impact regulations.

This paper is based upon a general examination of state and federal case law pertaining to flooding and floodplain regulations. For more precise conclusions for a particular jurisdiction, the reader is advised to consult a lawyer or examine the case law from that jurisdiction.

The No Adverse Impact Approach

In 2000, the Association of State Floodplain Managers (ASFPM) issued a white paper recommending a “no adverse impact” goal or approach for local, state, and federal floodplain management. The ASFPM recommended that communities adopt this goal to help control the spiral of flood and erosion losses, new development that increases flood risks, and then additional flood losses. The paper stated, “**No Adverse Impact floodplain management is an approach that insures that the action of one property owner does not adversely impact the properties and rights of other property owners, as measured by increased flood peaks, flood stage, flood velocity, and erosion and sedimentation.**” The following explanation of the approach, which the ASFPM calls “NAI floodplain management,” is taken from that paper (available on the ASFPM website at <http://www.floods.org>).

According to the ASFPM, the no adverse impact goal is not intended as a rigid rule of conduct for all properties. Rather it is offered as a general guide for landowner and community actions (construction of public works, use of public lands, planning, regulations, etc.) in the watersheds and the floodplains that may adversely affect flooding and erosion on other properties or communities. A no adverse impact goal could also be applied to environmental and other impacts, if a community chooses to do so.

The ASFPM notes in its paper that flood damage in the United States continues to escalate. From the early 1900s to the year 2000, national flood damage increased sixfold, approaching \$6 billion annually. This occurred despite billions of dollars spent for structural flood control, and other structural and nonstructural flood loss reduction measures. Nationally, development within floodplains continues to intensify. Development is occurring in a manner whereby floodprone or

marginally protected structures are suddenly susceptible to damage because of the actions of others in the floodplain. These actions raise flood heights and velocities and erosion potential.

Current National Flood Insurance Program (NFIP) floodplain management standards (administered by FEMA, the Federal Emergency Management Agency) do not prohibit diverting floodwaters onto other properties; reducing channel and overbank conveyance areas; filling essential valley storage; or changing flood velocities. The NFIP standards do require maintenance of the capacity of altered or relocated channels, but there is limited regard for how other changes may affect other people and property in the floodplain and watershed.* The net result is that the damage potential in the nation's floodplains is intensifying. This current course is one that is not equitable to those whose properties are affected.

The ASFPM recommends NAI floodplain management as a way for local governments to prevent ever-worsening flooding and flood damage and potentially increased legal liability. Most local governments have simply assumed that the federal floodplain management approaches embody a satisfactory standard of care, perhaps not realizing that they actually induce additional flooding and damage.

According to the ASFPM, NAI floodplain management offers communities an opportunity to promote **responsible and equitable** as well as legally sound floodplain development through community-based decisionmaking. Communities with such an approach will be able to better use federal and state programs to enhance their proactive initiatives and utilize those programs to their advantage as communities. A community with an NAI floodplain management initiative empowers itself (and its citizens) to build stakeholders at the local level. NAI floodplain management can be a step towards individual as well as community accountability, because it calls for avoiding increases in flood damage on other properties and in other communities. An NAI floodplain management goal requires communities to be proactive in understanding the potential impacts of flood development and in implementing programs of loss mitigation before those impacts occur.

The ASFPM suggests that NAI floodplain management be the default management standard for community regulations. It can also serve as an overall goal for a community that wants to develop a comprehensive watershed and floodplain management plan that identifies acceptable levels of impact, specifies appropriate measures to mitigate any adverse impacts, and sets forth a plan of action for implementation. NAI floodplain management can be extended to entire watersheds to promote the use of retention and detention technologies to mitigate increased runoff from urban areas.

* The minimum standards of the National Flood Insurance Program require that communities "review all permit applications to determine whether proposed building sites will be reasonably safe from flooding." See 44 C.F.R. 60.3(a)(1). In addition, the regulations of the flood program specifically state that "[a]ny community may exceed the minimum criteria (in the regulations) by adopting more comprehensive flood plain management regulations. . . . Therefore, any flood plain management regulations adopted by a State or community which are more restrictive than [the Flood Program Minimum Standards] are encouraged and shall take precedence."

Legal Issues

The no adverse impact approach raises two main sets of legal issues, which are examined in this paper:

- (1) Is a no adverse impact goal consistent with the flood-related common law rights and duties of public and private landowners pertaining to flooding? Will adherence to this approach reduce lawsuits against governments for flood losses (e.g., where new community roads, bridges, or storm sewers will result in increased flood damage to private lands)?
- (2) Is community adoption of a no adverse impact regulatory standard consistent with the constitutional prohibitions against taking of private property without payment of just compensation? May specific implementing standards include attachment of conditions to permits, tight regulation of high risk areas, strict regulation of narrow strips of land (buffers), open space zoning, and other implementing regulations?

We will examine the two questions in sequence.

PART 2

NO ADVERSE IMPACT AND THE COMMON LAW

Is a no adverse impact goal consistent with the flood-related common law rights and duties of public and private landowners? Will adherence to the no adverse impact approach reduce successful lawsuits against governments for increasing flood and erosion losses on private property?

Successful Common Law Suits Against Governmental Units

Despite government efforts to protect lives and reduce property losses, natural hazards continue to take a heavy toll in the United States and abroad. The “Great Midwest Flood” along the Mississippi and Missouri rivers in 1993 caused damage in excess of \$12.5 billion and nearly 50 deaths. Loss of life has been reduced in the United States from hurricanes and flooding over the last several decades, but property losses continue to mount as private and public development occurs, increasing flood and erosion on other properties in the watershed.

When individuals are damaged by flooding or erosion, they often file lawsuits against governments or individuals, claiming that the governments have caused the damage, contributed to the damage, or failed to prevent or provide adequate warnings of natural hazards. Box 1 outlines the principal legal theories for such suits, including “nuisance,” “trespass,” “violation of riparian rights,” violation of the “law of surface water,” “strict liability,” “negligence,” “denial of support,” “statutory liability,” and constitutional liability for “uncompensated takings.” All but “statutory” grounds and “uncompensated takings” are common law grounds for suits. The common law is judge-made law dating back more than 1,000 years. This judge-made law is primarily concerned with resolving disputes between individuals.

In a typical common law suit over flooding, a private landowner damaged by flood waters sues a community, alleging that the community’s actions increased flood or erosion damage on his or her property. The landowner’s lawyer will argue liability based on one or several legal theories or grounds of the sort outlined in Box 1. To win in court, the landowner must prove the amount of flood damage, that the flooding or erosion was more severe than would have naturally occurred, and that the community’s actions were the cause of the damage.

Liability suits based upon natural hazards have become increasingly expensive to governments not only because of the increasing awards for flood and erosion damage but also because of increasing attorney and expert witness fees and court costs, which may exceed the damage award. See, for example, *City of Watauga v. Tayton*, 752 S.W.2d 199 (Tex., 1988), where the trial court awarded only \$3,000 for damage to a home flooded by city actions and \$6,800 for destruction of personal property and fixtures. But it awarded \$19,500 for mental anguish and \$15,000 for attorney’s fees, more than triple the amount of the physical damage. The appellate court overturned the award for attorney’s fees but upheld that for mental anguish. For a much larger award of damages and hefty attorney’s fees see *West Century 102 Ltd. v. City of Inglewood*, 2002 Cal. App. Unpub. LEXIS 1599 (Cal. App., 2002), in which the court awarded a judgment of \$2,448,120 against the city for water damage, including \$493,491 in attorney’s fees.

Box 1. Legal Theories or Grounds for Liability

Nuisance. At common law, no landowner (public or private) has a right to use his or her land in a manner that substantially interferes, in a physical sense, with the use of adjacent lands. See, e.g., *Sandifer Motor, Inc. v. City of Rodland Park*, 628 P.2d 239 (Kan., 1981) (Flooding due to city dumping debris into ravine, which blocked sewer system, was a nuisance). “Reasonable” conduct is usually no defense against a nuisance suit although reasonableness is relevant to a determination of nuisance in some contexts and also to the type of relief available.

Principal activities that increase natural hazard losses on adjacent lands and may be subject to nuisance suits include dikes; dams; levees; grading; construction of roads and other land alterations that increase flood heights and velocities on other lands; erosion control structures, such as groins and seawalls, which increase erosion and/or flooding on other lands; and mud slide, landslide, and other ground failure structures that increase rather than decrease damage on adjacent lands.

Trespass. At common law, landowners can also bring trespass actions for certain types of public and private actions that result in physical invasion of private property such as flooding or drainage. See *Hadfield v. Oakleim County Drain Com’r*, 422 N.W.2d 205 (Mich., 1988). There are several different types of trespass (trespass and “trespass on the case”). An extensive discussion of the law of trespass with all of its nuances is beyond the scope of this paper.

Violation of Riparian Rights. At common law, riparian landowners enjoy a variety of special rights incidental to the ownership of riparian lands. These rights or “privileges” include fishing, swimming, and construction of piers. Riparian rights must be exercised “reasonably” in relationship to the reciprocal riparian rights of other riparians. Courts in some instances have held that construction of levees, dams, etc. by one riparian that increase flood damage on other lands is a violation of the riparian rights of other riparians. See *Lawden v. Bosler*, 163 P.2d 957 (Okla., 1945).

Violation of the Law of Surface Water. Under the rule of “reasonable use” (or some variation of it), in most states landowners cannot, at common law, substantially damage other landowners by blocking the flow of diffused surface waters, increasing that flow, or channeling that flow to a point other than the point of natural discharge. Courts have applied these rules to governmental units as well as private landowners and have, in some instances, applied even more stringent standards to governmental units. See, for example, *Wilson v. Ramacher*, 352 N.W.2d 389 (Minn., 1984).

Strict Liability. In a fair number of states, courts have held that landowners and governments are “strictly liable” for the collapse of dams because, following an early English ruling, impoundment of water has often been held an “ultrahazardous” activity. Private and public landowners are liable for damage from ultrahazardous activities even when no negligence is involved.

Negligence. At common law, all individuals (including public employees) have a duty to other members of society to act “reasonably” in a manner not to cause damage to other members of society. “Actionable negligence results from the creation of an unreasonable risk of injury to others. . . . In determining whether a risk is unreasonable, not only the seriousness of the harm that may be caused is relevant, but also the likelihood that harm may be caused.” The standard of conduct is that of a “reasonable man” in the circumstances. Negligence is the primary legal basis for public liability for improper design of hazard reduction measures such as flood control structures, improperly prepared and issued warnings, inadequate processing of permits, inadequate inspections, etc. See, e.g., *Kunz v. Utah Power and Light Company*, 526 F.2d 500 (9th Cir., 1975).

Denial of Lateral Support. At common law, the owner of land has a duty to provide “lateral support” to adjacent lands and any digging, trenching, grading, or other activity that removes naturally occurring lateral support is done at one’s peril. Government construction of roads, bridges, buildings, and other public works may deny lateral support to adjacent lands causing land failures (landslides, mudslides, erosion, or building collapse). See discussion below; *Blake Construction Co. v. United States*, 585 F.2d 998 (Ct. Cl., 1978) (U.S. government liable for subsidence due to excavation next to existing buildings).

Statutory Liability. Some states have adopted statutes that create separate statutory grounds for legal action. For example, the Texas Water Code, section 11.086, makes it unlawful for any person to divert the natural flow of waters or to impound surface waters in a manner that damages the property of others. See *Miller v. Letzerich*, 49 S.W.2d 404 (Tex., 1932).

Inverse Condemnation or “Taking” Without Payment of Just Compensation. Courts have quite often held governments liable for direct physical interference with adjacent private lands due to flooding, mudflows, landslides, or other physical interferences based upon a theory of “taking” of property without payment of just compensation. Government (but not private) landowners may be liable for such a taking. Successful inverse condemnation suits have been particularly common in California. For example, see *Ingram v. City of Redondo Beach*, 119 Cal. Rptr. 688 (Cal., 1975), in which the court held that collapse of an earthen retaining wall maintained by the city was basis for an inverse condemnation suit. But inverse condemnation actions have been recognized in many other states as well. See, e.g., *Wilson v. Ramacher*, 352 N.W.2d 389 (Minn., 1984) (flooding); *McClure v. Town of Mesilla*, 601 P.2d 80 (N.M., 1979) (operation of drain pipe).

The number of successful liability suits of all types has increased in the last two decades for several reasons:

A growing propensity to sue. Historically, members of society were more willing to accept losses from a broad range of natural hazard causes. Now, individuals suffering losses look for fault and monetary compensation from other individuals (public or private) who may have played even a limited role in causing or failing to prevent the losses.

Large awards of damages and the willingness of lawyers to initiate suits. Dramatic increases in the amount of damages courts award, combined with expanded concepts of liability and lessened defenses, have encouraged lawyers to take liability cases on a contingent fee (20–60% or more) basis. This means that landowners and other claimants do not need large sums of money to initiate or pursue suits. Nor will they be responsible for attorney’s fees and court costs if they lose.

Governments viewed as having “deep pockets.” Governments are often considered to be “able to pay.” In some jurisdictions governments may be held liable for the full amount of damage even when government actions were only a small contributor to such damage. Such joint and several liability has often been criticized and either judicially or legislatively changed in many states. But even without joint and several liability, governments remain a good candidate for suit because juries often view them unsympathetically.

Expanded concepts of liability. Courts and legislative bodies have expanded the basic rules of liability to make landowners and governmental units responsible for actions which result in or increase damage to others. For example, the traditional “common enemy” doctrine with regard to diffused surface waters (and other flood waters in some states) whereby a landowner could grade, dike, levee, or otherwise protect himself or herself against surface water without liability to other landowners or individuals who might be damaged by increased flows has been replaced judicially or legislatively in most jurisdictions by a rule of “reasonable use.” Pursuant to this rule, landowners must act “reasonably” with respect to other landowners. See, e.g., *County of Clark v. Powers*, 611 P.2d 1072 (Nev., 1980). In general, any activity which substantially increases the amount, velocity, or depth of surface waters on other lands has been held by courts to be unreasonable and potentially subject to liability. See, e.g., *Lombard Acceptance Corp. v. Town of San Anselmo*, 114 Cal. Rptr. 2d 699 (Cal. App., 2002), in which the court issued an injunction against a town for unreasonable increases in surface water which caused a landslide.

Similarly, the doctrine of caveat emptor (let the buyer beware) with regard to the sale of improved or unimproved property has been partially replaced by one of “implied warranty of suitability.” Pursuant to this doctrine, a developer of new homes is now legally liable if the homes are not suitable for their intended uses due to flooding, erosion, subsidence, or other natural hazards.

Uncertainties about the legal rules of liability and defenses (e.g., “act of God”). The evolving and expanding nature of liability law, the site-specific nature of many tort actions, and the potential for large judgments have combined to encourage landowners and their lawyers to initiate suits even in situations where no plaintiff has won before. With the potential for a

several-million-dollar judgment in a single suit, lawyers can take chances on untested legal theories and factual situations even if there is a limited probability of success.

Even without expansion in basic rules of liability, the site-specific nature of negligence actions encourages a large number of suits due to the lack of hard and fast rules for negligent or non-negligent conduct. Negligence depends upon the circumstances. Negligence is, to a considerable extent, what a judge or jury says is reasonable or unreasonable in a specific circumstance.

Abrogation or substantial modification of sovereign immunity in most jurisdictions. Traditionally, governments could not be sued for negligence due to “sovereign immunity” although they were, in general, able to be sued at common law for nuisances and taking of property without payment of just compensation. In the last three decades, the defense of sovereign immunity has been substantially reduced or abrogated altogether by court action or, more commonly, by Congressional or legislative acts. As a result, governmental units at all levels can be sued for negligence under certain circumstances, although there are exceptions. Most governments now carry liability insurance.

Hazards becoming more “foreseeable” and predictable. The potential for private and government liability has increased as the techniques and capabilities for defining hazard areas and predicting individual hazard events have improved and actual mapping of hazard areas has taken place. With improved predictive capability and mapping, hazard events are now (to a greater or lesser extent) “foreseeable” and failing to take such hazards into account may constitute negligence. See, e.g., *Barr v. Game, Fish, and Parks Commission*, 497 P.2d 340 (Colo., 1972.)

Limitations on the “act of God” defense. “Act of God” was at one time a frequently successful defense to losses from flooding and erosion. But at common law, “acts of God” must not only be very large hazard events but must also be “unforeseeable.” See, e.g., *Barr v. Game, Fish, and Parks Commission*, 497 P.2d 340 (Colo., 1972). See also, *Lang et al. v. Wonneberg et al.*, 455 N.W.2d 832 (N.D., 1990); *Keystone Electrical Manufacturing, Co. v. City of Des Moines*, 586 N.W.2d 340 (Iowa, 1998). Improved predictive capability and the development of hazard maps for many areas have limited the use of this defense.

Advances in techniques for reducing hazard losses. Advances in hazard loss reduction measures (e.g., warning systems or elevating structures) create an increasingly high standard of care for reasonable conduct. As technology advances, the techniques and approaches that must be applied by engineers and others to reach a level of “reasonable conduct,” as judged by practices applied in the profession, also advance. Private landowners and governments are negligent if they fail to exercise “reasonable care” in the circumstances. Architects and engineers must exercise “reasonable care” and demonstrate a level of knowledge and expertise equal to that of architects and engineers in their region. See generally Annot., “Architect’s Liability for Personal Injury or Death Allegedly Caused by Improper or Defective Plans or Designs,” 97 *A.L.R.3d* 455 (2000). Widespread dissemination of information concerning techniques for reducing flood and erosion losses through magazines, technical journals, and reports has also broadened the concept of “region,” so that a broad if not national standard of reasonableness may now exist.

Advances in natural hazard computer modeling, which can be used to prove causation. Fifty years ago it was very difficult for a landowner to prove that a particular activity on adjacent land substantially increased flooding, subsidence, erosion, or other hazards on his or her land. This was particularly true when the increase was due to multiple activities on many lands, such as increased flooding due to development throughout a watershed. Today, sophisticated computer modeling techniques facilitate proof of causation and allocation of fault, although proof may still be difficult. See, e.g., *Souza v. Silver Development Co.*, 164 Cal. App. 3d 165 (Cal., 1985); *Lea Company v. North Carolina Board of Transportation*, 304 S.E.2d 164 (N.C., 1983).

Limitations on the defenses of contributory negligence and assumption of risk. Traditionally, contributory negligence (i.e., actions that contribute to the injury or loss) and assumption of risk were often partial or total defenses to negligence. Today, most states have adopted comparative negligence statutes, which permit recovery (based upon percentage of fault) even where the claimant has been partially negligent. In a somewhat similar vein, courts have curtailed the “assumption of risk” doctrine and have held, in some cases, that even relatively explicit assumption of risk is no defense against negligence actions.

In summary, all levels of government—the federal government, states, and local governments—may now be sued for negligence, nuisance, breach of contract, or the “taking” of private property without payment of just compensation under certain circumstances when they increase flood or erosion hazards, although vulnerability to suit varies. As a practical matter, local governments are most vulnerable to liability suits based upon natural hazards because they are, in many contexts, the units of government undertaking most of the activities that may result in increased natural hazards or “takings of private property”; they are also the least protected by defenses such as sovereign immunity and statutory exemptions from tort actions. It is at the local level that most of the active management of hazardous lands occurs (road building and maintenance; operation of public buildings such as schools, libraries, town halls, sewer and water plants; parks). It is also at the local level where most public services with potential for creating liability such as flood fighting, police, ice removal, emergency evacuation, and ambulance services are provided.

Examples of Flooding, Drainage, and Erosion Cases

Units of government have been successfully sued for flooding, drainage, and erosion damage in a broad range of contexts, illustrated below. Flooding affects much of the land in the United States to some extent. Approximately 7% of the nation lies within the 100-year floodplain. Flooding is a result of tides, storm surges, pressure differentials (seiches), long term fluctuations in precipitation leading to high groundwater levels or high lake levels, riverine flooding, flash flooding, storm surge (hurricanes), and stormwater flooding. High water levels and high velocities may kill people, livestock, and wildlife and destroy or damage structures, crops, roads, and other infrastructure.

Floods are, to a lesser or greater extent, foreseeable and predictable. As a result of the broad-scale incidence of flood and drainage problems and the foreseeability of flooding, most (perhaps 85%) of natural hazard related liability suits against governments have been the result of flood or drainage damage. Many examples of successful cases are provided below and in other

publications. See, e.g., D.B. Binder, *Legal Liability for Dam Failures*, Association of State Dam Safety Officials, Lexington, Ky. (1989); Annot, "Liability of Municipality or Other Governmental Subdivision in Connection with Flood Protection Measures," 5 *A.L.R.2d* 57 (1949 and 2003 update). Cases illustrating various types of situations in which courts have held that governments may be sued for flooding, drainage, or erosion damage include those listed below. They usually have been based on one or more of the legal theories identified in Box 1. At one time nuisance and trespass were the most common grounds for successful suits. More recently negligence and unconstitutional takings have become more common.

Examples of suits include:

- *Avery v. Geneva County*, 567 So.2d 282 (Ala., 1990) (County may be liable for breaking a beaver dam which resulted in a flood and drowning).
- *United States v. Kansas City Life Insurance Co.*, 70 S. Ct. 885 (S.Ct., 1950) (Federal government is liable for artificially maintaining the Mississippi River at an artificially high level, which raised the water table, blocked drainage of properties, and caused destruction of the agricultural value of lands).
- *Coates v. United States*, 612 F. Supp. 592 (D.C. Ill., 1985) (Federal government is liable for failure to give adequate flash flood warning to campers in Rocky Mountain National Park and to develop adequate emergency management plan).
- *Ducey v. United States*, 713 F.2d 504 (9th Cir., 1983) (Federal government is potentially liable for failure to provide warnings for flash flood areas for an area subject to severe flooding in Lake Mead National Recreation Area).
- *County of Clark v. Powers*, 611 P.2d 1072 (Nev., 1980) (County is liable for flood damage caused by county-approved subdivision).
- *Myotte v. Village of Mayfield*, 375 N.E.2d 816 (Ohio, 1977) (Village is liable for flood damage caused by issuance of a building permit for industrial park).
- *Masley v. City of Lorain*, 358 N.E.2d 596 (Ohio, 1976) (City is not liable under theory of trespass for increased flooding due to urbanization including lots and streets but may be liable for inverse condemnation for damage due to storm sewer system).
- *Barr v. Game, Fish and Parks Commission*, 497 P.2d 340 (Colo., 1972) (State agency is liable for negligent design of dam and spillway inadequate to convey maximum probable flood; "act of God" defense inapplicable because of the foreseeability of the hazard event).
- *Rodrigues v. State*, 472 P.2d 509 (Hawaii, 1970) (State is liable for damage due to inadequate maintenance of drainage culverts that were blocked by sand bars and tidal action).

Cases are not confined to flooding and erosion but also include water-related landslides and earth movements. See, for example:

- *ABC Builders, Inc. v. Phillips*, 632 P.2d 925 (Wyo., 1981) (Evidence of city's failure to maintain a drainage ditch was sufficient to establish city's liability for resulting landslide).

- *Blau v. City of Los Angeles*, 107 Cal. Rptr. 727 (Cal., 1973) (City potentially liable under a theory of inverse condemnation for approving and accepting dedication of subdivision improvements that resulted in landslide).

- *Albers v. County of Los Angeles*, 398 P.2d 129 (Cal., 1965) (County liable for inverse condemnation for landslide damage caused by public placement of fill, and landowner could recover not only difference in fair market value before and after slide but also cost of stopping slide).

Liability for Entirely “Natural” Flood and Erosion Damage

May a local government be held responsible for **all** flood or erosion damage occurring in a community? For example, is it responsible for damage caused by overflow waters from a creek that has not been channelized or otherwise altered by the community?

Courts have generally held that landowners and governments have no affirmative duty to remedy naturally occurring hazards except in some special situations. See, e.g., *Souza v. Silver Development Co.*, 164 Cal. App. 3d 165 (Cal., 1985). For example, a Georgia court held that one landowner with a beaver dam on his property was not responsible for removing this dam when it flooded adjacent property. *Bracey v. King*, 406 S.E.2d 265 (Ga., 1991). The court in this case demonstrated humor, which is uncommon in court decisions, when it observed that “There is no suggestion in this case that the appellee (landowner) and/or his brother imported the offending beavers onto their property, trained them to build the dams, or in any way assisted or encouraged them in this activity.”

Courts have also held in most contexts that landowners and governments ordinarily have no duty to warn visitors, invitees, trespassers, or members of the general public for **naturally occurring** hazards (not exacerbated or created by governments) on public lands, nor do they have a duty to correct or ameliorate these hazards or reduce hazard losses by adopting regulations or building hazard reduction structures (e.g., dams, disaster assistance, public insurance, etc.). However, there are exceptions to this general rule of no affirmative duty and also a gradual trend in the courts to broaden these exceptions whenever governments take any action that directly or indirectly contributes to the flood or erosion damage. In addition, if governments do warn about, correct, or ameliorate hazards or take other affirmative measures, they must do so with reasonable care.

Courts have repeatedly held that once a governmental unit elects to undertake government activities, even where no affirmative duty existed for such action, it must exercise reasonable care. See, e.g., *Indian Towing v. United States*, 76 S. Ct. 122 (S.Ct. 1955). In the context of emergency services, this is often referred to as the “Good Samaritan” rule. Although a public entity or private individual ordinarily has no duty to provide aid to an individual in distress not caused by the public entity or private individual, once a governmental unit (or a private individual) has decided to provide aid, it must do so with ordinary care. As will be discussed in greater depth below, the doctrine applies in a broad range of contexts.

Some governments believe they may avoid **all** liability for hazard losses by avoiding various **future**, affirmative actions that increase flood hazards by filling, grading, construction of bridges or flood control works, etc. This will reduce future liability. However, many public works projects already undertaken have increased flooding, drainage, erosion, or land failure hazards on other lands. Any construction of a public building and invitation to the public to use public land can create the potential for “premises” liability. Many of the land alteration activities that governments have been undertaking in the United States over the last 300 years (and are continuing to undertake) are “affirmative” acts that increase natural hazards on other lands—with liability implications. In such situations governments need not only to avoid actions that will increase future flood heights and velocities but also undertake flood loss mitigation measures, such as flood warning systems, to reduce potential liability.

At the risk of belaboring the point, consider the typical municipality in which many major land and water alternations have been carried out or approved by the government. These include public roads, sewers, water supply systems, stormwater systems, dikes, ditches, levees, general grading, and park development. Most private subdivisions have also been approved by governments under subdivision control laws and private buildings have been approved through building permits. These land alterations and permitted activities have modified runoff, drainage, stream and river channel flood characteristics, erosion potential, and landslide and mud slide potential throughout the community. The potential for damage from other hazards such as earthquakes (bursting pipelines), avalanches, and snow may also have been increased. Because government has modified the natural landscape, the argument of “doing nothing” to avoid liability now has limited applicability. To reduce potential liability, governments need to avoid future increases in flood heights and velocities and simultaneously address pre-existing increases through flood hazard planning and plan implementation.

Liability for Affirmative Acts that Increase Flood and Erosion Damage

In what contexts may a community be held liable for increases in the amount of and changes in the location of discharge of “surface” waters? Of waters in rivers, streams, and other channels?

As stated above, communities, like other landowners, may be held liable in almost all contexts for substantially increasing the amount of discharge or location of discharge of water with resulting damage to private property owners. They may be held liable under one or more of the theories described in Box 1 for increasing flood and erosion damage from both surface waters and waters in rivers, streams, and other channels.

Under English common law, and the law of some states, private and public landowners could block or dispose of “diffused surface water” (i.e., surface water not confined to a defined watercourse, lake, or the ocean) pretty much as they wished under the “common enemy doctrine.” The common enemy doctrine was so named because “at one time surface water was regarded as a common enemy with which each landowner had an unlimited legal privilege to deal as he pleased without regard to the consequences that might be suffered by his neighbor. . .” *Butler v. Bruno*, 341 A.2d 735 (R.I., 1975). However the common enemy doctrine has been judicially or legislatively modified in all but a few states so that anyone (public or private) increasing natural drainage flows or the point of discharge does so at his or her peril. See generally, Annot., “Modern Status of Rules Governing Interference with Drainage of Surface

Waters,” 93 *A.L.R.3d* 1193 (2003); R. Berk, “The Law of Drainage,” 5 *Waters and Water Rights*, #450 et seq. (R. Clark, ed., 1972); Kenworthy, “Urban Drainage—Aspects of Public and Private Liability,” 39 *Den. L.J.* 197 (1962).

Two alternatives to the common enemy doctrine are now applied to surface water in all but a few states. A highly restrictive “civil-law” rule has been adopted in a few states. The rule requires that the owner of lower land accept the surface water naturally draining onto his land but the upper owner may do nothing to increase the flow. See *Butler v. Bruno*, 341 A.2d 735 (R.I., 1975). The rule is that “a person who interferes with the natural flow of surface water so as to cause an invasion of another’s interests in the use and enjoyment of his land is subject to liability to the others.” *Id.* at 737. See also S.V. Kinyon and R.C. McClure, “Interferences with Surface Waters,” 24 *Minn. L. Rev.* 891 (1940). Like the common enemy doctrine, however, this civil-law rule has been somewhat modified in most states so that landowners may, to some extent, increase flows as long as they do so in good faith and “non-negligently.”

A third doctrine—the rule of “reasonable use”—has gradually replaced the common enemy and civil rules in most states. Under this rule, the property owner’s liability turns on a determination of the reasonableness of his or her actions. Factors relevant to the determination of reasonableness are similar to those considered in determining riparian rights and negligence (listed below). The issue of reasonableness is a question of fact to be determined in each case upon the consideration of all the relevant circumstances. *Butler v. Bruno*, 341 A.2d 735, 738 (R.I., 1975).

A very similar doctrine of reasonableness has been applied under the law of “riparian rights,” which applies to water in watercourses. See, generally, Annot., “Right of Riparian Owner to Construct Dikes, Embankments, or Other Structures Necessary to Maintain or Restore Bank of Stream or to Prevent Flood,” 23 *A.L.R.2d* 750 (1952 with 2004 updates). The factors considered in determining “reasonableness” are similar to those used in determining whether a landowner has been “negligent” (see discussion below). Riparian rights have been interpreted in some cases to include the right to construct flood and erosion protection measures as long as they do not damage other riparians. As the court in *Lowden v. Bosler*, 163 P.2d 957 (Okla., 1945), noted in holding a landowner liable for damage caused by a jetty placed in a river (*Id.* at 958):

A riparian proprietor may lawfully erect and maintain any work or embankment to protect his land against overflow by any change of the natural state of the river and to prevent the old course of the river from being altered; but such a riparian proprietor, though doing so for his convenience, benefit, and protection, has no right to build anything which in times of flood will throw waters on the lands of another such proprietor so as to overflow and injure him.

Factors Relevant to Reasonableness

A variety of factors are relevant to the “reasonableness” of conduct in particular circumstances pursuant to a suit based on negligence and, to a lesser extent, other theories incorporating a reasonableness standard such the rules of “reasonable use” pertaining to diffused surface water and the law of riparian rights. Some of these include:

The severity of the potential harm posed by the particular activity.

Where severe harm may result from an act or activity, a “reasonable man” must exercise great care. See *Blueflame Gas, Inc. v. Van Hoose*, 679 P.2d 579 (Colo., 1984), in which the court held that the greater the risk, the greater the amount of care required to avoid injury. With an ultrahazardous activity, the degree of care required may be so great that it approaches strict liability.

Foreseeability of the harm.

A “reasonable man” is only responsible for injuries or damage that are known or could be reasonably foreseen. See *Scully v. Middleton*, 751 S.W.2d 5 (Ark., 1988). To constitute negligence, the act must be one which a reasonably careful person would foresee such an appreciable risk of harm to others as to cause him not to do the act or to do it in a more careful manner. The test is not only whether he or she did in fact foresee the harm but whether he or she should have foreseen it, given all the circumstances. For example, direct warning of a dangerous condition such as the report from a user of a public road that a bridge was washed out provides foreseeability. But so may a flood map or other less direct information.

Custom.

The standard for reasonable conduct in a negligence suit is usually a community standard. Therefore, evidence of the usual and customary conduct of others under the circumstances is relevant and admissible. However, courts have found an entire industry careless and custom is not conclusive. See *The T.J. Hooper*, 60 F.2d 737 (2nd Cir., 1932). As noted by the Illinois Supreme Court in *Advincula v. United Blood Servs.*, 678 N.E.2d 1009 (Ill., 1996), “while custom and practice can assist in determining what is proper conduct, they are not conclusive necessarily of it. Such evidence may be overcome by contrary expert testimony (or its equivalent) that the prevailing **professional standard of care** [*emphasis added by the court*], itself, constitutes negligence.”

Emergency.

The overall context of acts determine their reasonableness for negligence purposes. For example, acts of a reasonable man in an emergency are subject to a lower standard of care than acts not in an emergency. See e.g., *Cords v. Anderson*, 259 N.W.2d 672 (Wis., 1977). An emergency is a sudden and unexpected situation that deprives an actor of an opportunity for deliberation.

The status of the injured party.

The duty of care owed by a private or public entity depends, to some extent, upon the status of the injured party and his or her relationship to the entity. Traditionally, at common law, the owner or occupier of land owed different standards of care to various categories of visitors for negligent conditions on the premises. See generally, Annot., “Modern Status of Rules Governing Landowner’s Liability Upon Status of Injured Party as Invitee, Licensee, or Trespasser, 22 *A.L.R.4th* 296 (1983 with 2003 updates). Some jurisdictions have held that an owner or occupier of land is held to a duty of reasonable care under all circumstances to invitees, licensees, and trespassers alike. Most others have held that the duty of reasonable care extends only to invitees and licensees but that a lesser standard of care exists with regard to trespassers. In general, a landowner is only responsible to a trespasser for “willful and wanton” conduct with the exception of attractive nuisances. See *Adams v. Fred’s Dollar Store*, 497 So. 2d 1097 (Miss, 1986).

Special relationship.

In some instances, a special relationship exists between an injured individual and a governmental unit that creates a special duty of care. For example, in *Kunz v. Utah Power and Light Company*, 526 F.2d 500 (9th Cir., 1975) a Federal Court of Appeals held that the Utah Power and Light Company, which operated a storage facility at a lake, had a special relationship with downstream landowners and a duty to provide flood control because they had operated the facility to provide flood control over a period of time and downstream landowners had come to rely upon such operation. Failure to act reasonably in light of this duty was negligence.

Statutes, ordinances, or other regulations applying to the area.

Negligence may arise from breach of a common law duty or one imposed by statute or regulation. See *Hundt v. LaCross Grain Co., Ind.*, 425 N.E.2d 687 (Ind., 1981). In general, violation of a statute or ordinance creates, at a minimum, a presumption of negligence or evidence of negligence. See, e.g., *Distad v. Cubin*, 633 P.2d 167 (Wyo., 1981). It is also relevant to nuisance and trespass. See, e.g., *Tyler v. Lincoln*, 527 S.E.2d 180 (2000).

Government Failure to Adopt Regulations

May a governmental unit be liable for failure to adopt floodplain regulations?

In general, governmental units have no duty to adopt regulations and no liability results from failure to adopt a regulation. See, for example, *Hinnigan v. Town of Jewett*, 94 A.D.2d 830 (N.Y., 1983) (New York court held that State of New York was not liable for failing to assure the participation of towns in the NFIP and similarly, that the town of Jewett was not liable for failing to meet the minimum federal standards of the NFIP, thereby making flood insurance available in the town). See also *Urban v. Village of Inverness*, 530 N.E.2d 976 (Ill., 1988) (No affirmative duty by city to prevent flooding due to land alteration through adoption and enforcement of regulations on development). However, see *Sabina v. Yavapai County Flood Control Dist.*, 993 P.2d 1130 (Ariz., 1999) (Court implied that Yavapai Flood Control District might be liable for failing to regulate).

However, legislatures in many states have adopted statutes requiring local governments to adopt floodplain regulations. See *County of Ramsey v. Stevens*, 283 N.W. 2d 918 (Minn., 1979). These statutes create a duty to adopt regulations and might serve as the basis for suit if regulations were not then adopted. For example, see generally *NRCD v. NYSDEC*, 668 F. Supp. 848 (S.D.N.Y., 1987) (State liable for failing to adopt regulations as required). See also *United States v. St. Bernard Parish*, 756 F.2d 1116 (5th Cir., 1985).

To be on the safe side, government units should adopt regulations where statutes require such adoption.

Failing to Adequately Consider Flooding in Permitting

May governmental units be liable if they fail to adequately consider flooding when issuing regulatory permits, if damage to private landowners results?

Courts in most jurisdictions have held that governments are immune from liability for issuance or denial of building and other types of permits because issuance is a discretionary function. See Annot., “Liability of Governmental Entity for Issuance of Permit for Construction which caused Accelerated Flooding,” 62 *A.L.R.3d* 514 (2000). See *Wilcox Associates v. Fairbanks North Star Borough*, 603 P.2d 903 (Ala. 1979), and cases cited therein. This rule continues to prevail in the majority of jurisdictions. See, for example:

- *Phillips v. King County et al.*, 968 P.2d 871 (Wash., 1998) (County not liable for approving a developer’s drainage plan that resulted in flooding).
- *Johnson v. County of Essex*, 538 A.2d 448 (N.J., 1987) (No township liability for approving plats and building permits that increased flow of water under pipe due to statutory plan and design immunity and discretionary immunity).
- *Loveland v. Orem City Corp.*, 746 P.2d 763 (Utah, 1987) (City not liable for approval of subdivision plat without requiring fencing of canal where child subsequently drowned, because approval was a discretionary function).

Although the general rule is still no liability, courts have recognized some in-roads and qualifications on the rule, particularly where issuance of a permit results in damage to other lands. Annot., “Liability of Governmental Entity for Issuance of Permit for Construction Which Caused or Accelerated Flooding,” 62 *A.L.R.3d* 514 (2000). See, for example:

- *Hutcheson v. City of Keizer*, 8 P.3d 1010 (Ore., 2000) (City liable for approving subdivision plans which led to extensive flooding).
- *Columbus v. Smith*, 316 S.E.2d 761 (Ga., 1984) (Government entity that regulated construction along a stream in violation of a floodplain ordinance had a duty to prevent flooding to property along the stream caused by construction).
- *Kite v. City of Westworth Village*, 853 S.W.2d 200 (Tex., 1993) (City was liable for approving subdivision plat which diverted water).
- *Hurst v. U.S.*, 739 F.Supp. 1377 (D.S.D., 1990) (U.S. Army Corps of Engineers potentially liable for failing to regulate building obstructions in navigable waters which increased erosion damage).
- *Columbus, Ga. v. Smith*, 316 S.E.2d 761 (Ga., 1984) (City may be held liable for approving construction project resulting in flooding).
- *Pickle v. Board of County Comm’r of County of Platte*, 764 P.2d 262 (Wyo., 1988) (County had duty of exercising reasonable care in reviewing subdivision plan).

Courts have also held governments liable to permittees for the erroneous issuance of building permits in a number of cases. See cases cited in Comment, “Municipal Tort Liability for Erroneous Issuance of Building Permits: A National Survey,” 58 *Wash. L. Rev.* 537 (1983). See, for example, *Radach v. Gunderson*, 695 P. 2d 128 (Wash., 1985) (City was liable for expense of moving house that did not meet zoning setback requirements constructed pursuant to a permit issued by city).

Acceptance of Dedicated Storm Sewers, Streets, Other Facilities

May a governmental unit be held liable for flood damage that results from ditches, channels, stormwater detention facilities, roads, and other infrastructure constructed by developers and dedicated to governmental units?

In an increasing number of cases, courts have held governmental units responsible for approving and accepting storm sewers and other facilities dedicated to governmental units by subdividers or other developers. See, for example:

- *City of Keller v. Wilson*, 86 S.W.3d 693 (Tex., 2002) (City liable for approving subdivision plat and acquiring easement which increased flood damage on other property).
- *Kite v. City of Westworth Village*, 853 S.W.2d 200 (Tex., 1993) (City liable for approving subdivision plat and acquiring easement which increased flood damage on other property).
- *City of Columbus v. Myszka*, 272 S.E.2d 302 (Ga., 1980) (City liable for continuing nuisance for approving and accepting uphill subdivision which caused flooding).
- *Powell v. Village of Mt. Zion*, 410 N.E.2d 525 (Ill., 1980) (Once village approves and adopts sewer system constructed by subdivision developer, village may be held liable for damage caused by it).

However, courts have refused to find cities liable in other contexts. See, for example:

- *M.H. Siegfried Real Estate v. City of Independence*, 649 S.W.2d 893 (Mo., 1983) (City cannot be required to construct culverts to facilitate the flow of surface water when it assumes maintenance of streets possibly built by others).
- *Martinovich v. City of Sugar Creek, Mo.*, 617 S.W.2d 515 (Mo., 1981) (City not responsible for sewer and catch basin constructed by private developer and never accepted by the city).

Inadequate Inspections

May a governmental unit be held liable for failing to carry out adequate building inspections (e.g., failure to determine whether a structure complies with regulatory flood elevations and floodproofing requirements)?

Traditionally, the failure of governments to carry out more traditional inspections or a lack of care in such inspections was not subject to suit because inspections were considered either “governmental” or “discretionary” in nature. See Annot., “Municipal Liability for Negligent Performance of Building Inspector’s Duties,” 24 *A.L.R.5th* 200 (2003). See, for example, *Stemen v. Coffman*, 285 N.W.2d 305 (Mich., 1979) (Failure of city to require owners of multi-dwelling unit to abate alleged nuisance due to inadequate fire protection devices was discretionary and not negligence); F.F. Stone and A. Renker, Jr., “Governmental Liability for Negligent Inspections,” 57 *Tul. L. Rev.* 328 (1982). In addition, many states, such as Kansas, Alaska, California, and Utah, have adopted statutes immunizing building inspection activities from suit. See Kans. Stat.

Ann. §75-6104(j) (1989). Other examples of cases in which courts have refused to hold units of government responsible for inadequate inspections include:

- *Stannik v. Bellingham–Whatcom Bd. of Health*, 737 P.2d 1054 (Wash., 1987) (Court refused to allow negligence claim against county by home buyers for failure to inspect and detect sewage disposal system which did not comply with county ordinance due to “public duty” doctrine).
- *Siple v. City of Topeka*, 679 P.2d 190 (Kan., 1984) (Court refused to hold city liable for inspection of private tree by city forester, which later fell on a car, due to statutory immunity for inspections and public duty doctrine).

But some courts hold governmental units responsible for inadequate inspections. See, for example:

- *Tuffley v. City of Syracuse*, 82 A.D.2d 110 (N.Y., 1981) (City was held liable based upon a theory of inverse condemnation for acts of a city engineer in failing to adequately inspect building site and determine that culvert running under site was part of a city storm water drainage system. The court held that a “special relationship” existed here).
- *Brown v. Syson*, 663 P.2d 251 (Ariz., 1983) (Court held that home purchaser’s action against city for negligent inspection of home for violations of building codes was not barred by doctrine of sovereign immunity and public duty doctrine).

Inadequate Enforcement of Regulations

Is a local government liable for failing to enforce floodplain regulations (e.g., illegal construction of a house in a floodway with resulting increased flood damage to adjacent lands)?

Courts have generally considered enforcement of regulations a discretionary function exempt from suit. However, as with negligent inspections, courts have held governmental units liable in a few instances. See, for example, *Radach v. Gunderson*, 695 P.2d 128 (Wash., 1985) (City was liable for expense of moving ocean-front house (which did not meet zoning setback) that was constructed pursuant to a permit issued by city. City was aware of violation before construction).

Legislative Modification of Common Law Rules

Could state legislatures modify the common law rules and impose a higher standard of care on local governments or private property owners for increasing flood damage on other lands, failure to comply with regulations, inadequate inspections, and similar actions?

It is clear that state legislatures could impose a higher standard of care on private landowners, public officials, and local governments than imposed by common law by adopting remedial statutes. For example, lower courts and the U.S. Supreme Court have upheld state laws changing the “common enemy” surface water doctrine to a doctrine of reasonable use against claims of taking or violation of due process. See, for example, *Chicago & Alton R. Co. v. Tranberger*, 35 S. Ct. 678 (1915); *Peterson v. Northern Pac. Ry. Co.*, 156 N.W. 121 (Minn., 1916); *Tranberger v. Railroad*, 156 S.W. 694 (Miss., 1913).

Local governments cannot, by ordinance, change the common law in a local unit of government. But they can adopt ordinances that help establish a higher standard of care in construction design and other activities. In many jurisdictions, violation of an ordinance or other regulation is considered negligence per se if (1) the injury was caused by the ordinance violation, (2) the harm was of the type intended to be prevented by the ordinance, and (3) the injured party was one of the class meant to be protected by the ordinance. See *Boyles v. Oklahoma Natural Gas Co.*, 619 P.2d 613 (Okla., 1980).

Although violation of a statute or ordinance is, at a minimum, evidence of negligence, compliance with an ordinance or statute does not bar a negligence suit. *Corley v. Gene Allen Air Service, Inc.*, 425 So. 2d 781 (La., 1983). In addition, approval of a permit for a project by a state administrative agency does not preclude a private lawsuit. For example, in *Oak Leaf Country Club, Inc., v. Wilson*, 257 N.W.2d 739 (Iowa, 1977), an Iowa court held that approval by a state agency of a stream channelization project did not preclude judicial relief to riparian landowners for damage from the project.

In summary, a no adverse impact approach is consistent overall with the rights and duties of landowners under the common law. Adherence to a no adverse impact standard in road building, grading, stormwater management, filling, grading, flood control works, permitting, and other activities will reduce community liability.

PART 3

**THE CONSTITUTIONALITY OF A NO ADVERSE IMPACT
REGULATORY STANDARD**

Would a community that adopted a no adverse impact performance standard in floodplain, zoning, subdivision control, or other regulations be subject to successful landowner suits for “taking” private property without payment of just compensation? Would it be subject to successful suits if it adopted more specific implementing regulations, such as a zero rise floodway restriction, stream setbacks, freeboard requirements for elevation of structures, or open space zoning?

As will be discussed below, courts are likely to uphold a general no adverse impact performance standard. They are also likely to uphold more specific implementing regulations as long as the regulations do not deny landowners all permanent, non-nuisance-like uses of entire properties. This will be explained below.

Despite the small number of regulatory cases holding that governments have, through flood hazard and other hazard regulations, “taken” private property without payment of just compensation, governments are often fearful that the regulations they adopt will be held a “taking.” Based upon the small number of successful cases to date and the overall trends in the courts, “taking” is not a serious challenge to performance-oriented hazard regulations and is an overrated economic threat to public coffers. Successful regulatory taking cases for hazard-related regulations are extremely rare and are vastly outnumbered by successful common law cases holding governmental units liable for increasing flood, erosion, or other hazard losses on private lands consistent with the legal theories described in Box 1.

Uncompensated “Takings”

The 5th Amendment to the U.S. Constitution and similar provisions in state constitutions prohibit governmental units from taking private property without payment of just compensation. Courts have held that unconstitutional “takings” may occur in two principal flood hazard contexts. The first occurs when a governmental unit increases flood or erosion damage on other lands by filling, grading, construction of levees, channelization, or other activities. Governmental units may be found liable for such increases based upon a broad range of common law theories described in Box 1. Alternatively, they may be held liable for “taking” private property without payment of just compensation under the U.S. Constitution and state constitutions.

The second context in which governmental units may be held liable for a taking is when they adopt floodplain regulations that severely restrict the use of private property. In such situations landowners sometimes also claim “inverse condemnation” of their lands. However, few of these suits have succeeded.

Over a period of years there have been only a handful of successful challenges to floodplain regulations as takings (less than a dozen appellate cases by my count) in contrast with hundreds of cases that support such regulations. Nevertheless, local governments are often concerned

about the possibility of a successful takings challenge to their regulations. Part of the concern with taking is due to seven U.S. Supreme Court decisions in the last decade addressing regulations for natural hazard areas described below. These decisions suggest that local and state regulations may be a “taking” in certain circumstances. However, each of the decisions gave overall support to regulations. These seven decisions are briefly described in Box 2. More detailed analysis is provided for some in the text that follows.

Traditional floodplain regulations permit some development in the floodplain, although an increasing number of local and state regulations requires various types of compensatory measures to insure that development will not increase flood heights on other lands, consistent with a no adverse impact standard. Regulations preventing landowners from increasing flood or erosion damage on other lands have been broadly upheld for a variety of reasons. With regard to uses with nuisance-like impacts, the U.S. Supreme Court in *Keystone Bituminous Coal Assn. v. DeBenedictis*, 107 S.Ct. 1232, 1245 (1987), concluded:

The Court’s hesitance to find a taking when the state merely restrains uses of property that are tantamount to public nuisances is consistent with the notion of “reciprocity of advantage.” . . . Under our system of government, one of the state’s primary ways of preserving the public weal is restricting the uses individuals can make of their property. While each of us is burdened somewhat by such restrictions, we, in turn, benefit greatly from the restrictions that are placed on others. . . . These restrictions are “properly treated as part of the burden of common citizenship.” . . . Long ago it was recognized that “all property in this country is held under the implied obligation that the owner’s use of it shall not be injurious to the community.” . . . and the Takings Clause did not transform that principle to one that requires compensation whenever the state asserts its power to enforce it.

A Texas court in *San Antonio River Authority v. Garrett Brothers*, 528 S.W.2d 266 (Tex., 1975), concluded, more broadly:

It is clear that in exercising the police power, the government agency is acting as an arbiter of disputes among groups and individuals for the purpose of resolving conflicts among competing interests. This is the role in which government acts when it adopts zoning ordinances, enacts health measures, adopts building codes, abates nuisances, or adopts a host of other regulations. When government, in its role as neutral arbiter, adopts measures for the protection of the public health, safety, morals or welfare, and such regulations result in economic loss to a citizen, a rule shielding the agency from liability for such loss can be persuasively defended, since the threat of liability in such cases could well have the effect of deterring the adoption of measures necessary for the attainment of proper police power objectives, with the result that only completely safe, and probably ineffective, regulatory measures would be adopted.

Box 2. Recent (Last 15 Years) Supreme Court Decisions with Special Relevance to Floodplain Regulations

The following seven Supreme Court decisions issued in the last 15 years have special relevance to floodplain regulations. Four (*Tahoe*, *Dolan*, *First English*, and *Keystone*) dealt with hazard reduction regulations; two with beach regulations (*Lucas* and *Nolan*), and one with wetlands (*Palazzolo*). The Court remanded the cases for further proceedings in five of the seven cases. The potential importance of holdings to future federal and state court cases are indicated.

- *Tahoe-Sierra Preservation Council, Inc. v. Tahoe Regional Planning Agency*, 122 S.Ct. 1465 (2002) (Court upheld Tahoe Regional Planning Agency temporary ordinances which had applied for 32 months to “high hazard” (steep slope) zones near Lake Tahoe against a claim that they were a taking of private property. The Court applied a “whole parcel” analysis to the duration of regulation to decide that no taking had occurred). This case can be cited as strongly supporting hazard-related regulations including “interim” regulations.

- *Palazzolo v. Rhode Island*, 121 S.Ct. 2448 (2001) (Court held that purchase of wetland subject to restrictions was not bar to a suit for taking of private property but the test for taking was the value of the entire parcel and not simply the wetland portion. The case was remanded for further proceedings). This case may be cited in the future to help support hazard regulations in some contexts because it requires courts to consider the impact of regulations on entire parcels. But it may also be cited in suits challenging regulations where a landowner purchased lands subject to regulations and wishes to challenge them.

- *Dolan v. City of Tigard*, 114 S.Ct. 2309 (1994) (Court held that city regulations for the 100-year floodplain which required a property owner to donate a 15-foot bike path along the stream were not reasonably related to the goals of the regulation and were therefore a taking. The Court stated that the municipality had to establish that the dedication requirement had “rough proportionality” to the burden on the public created by the proposed development). The Court later, in *City of Monterey v. Del Monte Dunes at Monterey, Ltd.*, 119 S.Ct. 1624 (1999), held that the rough proportionality test was limited to exactions of interests in land for public use. *Dolan* may be cited by those challenging floodplain dedication requirements where the dedication requirements are not roughly proportional to the burdens created by the proposed floodplain activity.

- *Lucas v. South Carolina Coastal Council*, 112 S.Ct. 2886 (1992) (Court held that state beach statute prohibiting building of a house which prevents “any reasonable use of lots” was a “categorical” taking unless the state could identify background principles of nuisance and property law that would prohibit the owner from developing the property. The case was remanded for further determinations by the South Carolina court). This case may be cited to challenge floodplain regulations if the floodplain regulations deny all economic use of entire lands and the prohibited uses are not nuisance-like in their surroundings or otherwise limited by public trust or other principles of state law. On the other hand, the case may be cited in the future to support floodplain regulations where proposed activities are limited by common law or other principles of state law or where regulations do not deny all economic uses.

- *Nollan v. California Coastal Commission*, 107 S.Ct. 3141 (1987) (Court held that the California Coastal Commission’s conditioning of a building permit for a beachfront lot upon granting public access to the beach lacked an “essential nexus” between the regulatory requirement and the regulatory goals and was a taking. The Court held that the access requirement “utterly fail(ed) to advance the stated public purpose of providing views of the beach, reducing psychological barriers to using public beaches, and reducing beach congestion”). This case may be cited in the future to challenge floodplain regulations if they lack adequate “nexus” to regulatory goals and dedications are required. However, inadequate nexus is very rarely a problem with floodplain regulations.

- *First English Evangelical Church of Glendale v. County of Los Angeles*, 482 U.S. 304 (1987) (Court held that a temporary restriction by a flood hazard reduction ordinance which prevented the rebuilding of a church property was (potentially) a taking. The court remanded the decision to the lower California court to re-determine whether a taking had occurred. The lower court again held that no taking had occurred. There was no further appeal). This case may be cited by landowners challenging floodplain regulations as a temporary taking. However, this ruling is qualified by *Tahoe*, above, which strongly upheld interim regulations as not a taking.

- *Keystone Bituminous Coal Association v. DeBenedictis*, 107 S. Ct. 1232 (1987) (Court held that public safety regulations which restricted the mining of all of the coal to prevent subsidence were not a taking because the impact of regulations upon an entire property (not simply the areas where coal could not be removed) should be considered). This case may be cited in the future as supporting whole-parcel analysis for floodplain regulations (see also *Tahoe* and *Palazzolo*, above). It also may be cited as supporting regulations that restrict threats to public safety or control nuisances.

Regulations Exceeding NFIP Minimum Standards

FEMA statutes and regulations provide that more restrictive state and local requirements take precedence over NFIP minimum standards. Courts have sustained a range of floodplain regulations that exceed the specifically articulated NFIP minimum standards against challenges that they are unreasonable or a taking. See particularly *Hansel v. City of Keene*, 634 A2d 1351 (N.H., 1993), in which the New Hampshire Supreme Court upheld an ordinance adopted by the city of Keene that contained a “no significant impact” standard. The zoning ordinance prohibited new construction within the floodplain unless it was demonstrated “that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevations of the base flood at any point within the community.” In sustaining the regulation, the court noted that the floodplain ordinance revealed “an understandable concern among city officials that any water surface elevation increase in the floodplain could, at a minimum, strain city resources and impose unnecessary hardship on city residents.”

For other examples sustaining regulations that exceed minimum NFIP standards against takings and other challenges, see the following and other cases cited below pertaining to setbacks, tight restriction of high hazard areas, and open space zoning:

- *American Cyanamid v. Dept. of Envir. Prot.*, 555 A.2d 684 (N.J., 1989) (Court held that New Jersey Department of Environmental Protection could use U.S. Geological Survey 500-year design flood line for regulatory purposes).
- *New City Office Park v. Planning Bd., Town of Clarkstown*, 533 N.Y.S.2d 786 (N.Y., 1988) (Court upheld planning board’s denial of site plan approval because the developer could not provide compensatory flood storage for 9,500 cubic yards of fill proposed for the property. The court noted that “Indeed, common sense dictates that the development of numerous parcels of land situated within the floodplain, each displacing only a relatively minor amount of floodwater, in the aggregate could lead to disastrous consequences”).
- *Patullo v. Zoning Hearing Bd. of Tp. of Middletown*, 701 A.2d 295 (Pa. Commw., 1997) (Court held that landowner was not entitled to a special exception or variance for construction of a garage in a 100-year floodplain where construction would have raised flood heights by 0.1 foot).
- *Reel Enterprises v. City of LaCrosse*, 431 N.W.2d 743 (Wis., 1988) (Court held that Wisconsin Department of Natural Resources had not taken private floodplain property by undertaking floodplain studies, disapproving municipal ordinance, and announcing an intention to adopt a floodplain ordinance for the city putting all or most properties within floodway designation. Plaintiff had failed to allege or prove the deprivation of “all or substantially all, of the use of their property.” However, the court decision was partially overruled on other grounds).
- *State v. City of La Crosse*, 120 Wis.2d 263 (Wis., 1984) (Court held that state’s hydraulic analysis showing that fill placed in the La Crosse River floodplain would cause an increase greater than 0.1 foot in the height of the regional flood, contrary to the city’s floodplain zoning ordinance and state regulations).

Courts have only held flood-related regulations to be a taking in a small number of cases where regulations denied landowners all economic use of private lands. Various versions of the denial of economic use test have been widely applied at the state level for more than 40 years. See J.A. Kusler, “Open Space Zoning: Taking or Valid Regulation?” 57 *Minn. L. Rev.* 1 (1972). For example, a New York Court of Appeals in *Arvene Bay Construction Co. v. Thatcher*, 15 N.E.2d 587 at 592 (N.Y., 1938), held that “An ordinance which permanently so restricts the use of property that it cannot be used for any **reasonable** purpose goes, it is plain, beyond regulation, and must be recognized as a taking of property.” See also the discussion below.

Simultaneous Constitutional Challenges

Landowners wishing to challenge a floodplain regulation often simultaneously argue that the regulations are unconstitutional under the state and federal constitutions in a number of different ways—the regulations are adopted for improper goals; the regulations are not reasonably related to (lack reasonable nexus to) regulatory goals; the regulations are discriminatory; and the regulations are an uncompensated taking of private property. Courts are more likely to find a taking if they find inadequate goals, inadequate nexus, or discrimination. See the discussion below.

Factors Considered by the Courts in a Takings Case

In deciding whether floodplain regulations take private property without payment of just compensation, courts simultaneously examine a variety of factors. They examine the following three with particular care:

The nature of the landowner’s property interest.

Courts ask: **Does the landowner own the floodplain area or is it owned by the public? Is the landowner’s property subject to public trust?** See, e.g., *Phillips Petroleum Co. v. Mississippi*, 484 U.S. 469 (1988), in which the Supreme Court held that private landowners who believed that they owned estuarine wetlands in Mississippi subject to the ebb and flow of the tide and who had paid taxes on such lands for more than 100 years did not, in fact, own such lands and could not claim a taking when the state leased the lands to someone else. See also *Bubis v. Kassin*, 733 A.2d 1232 (N.J. 1999), in which the court held that a private property owner’s easement over beach and bluff areas was extinguished between the beach and bluff areas which were entirely below the mean high water mark. See *McQueen v. South Carolina Coastal Council*, 580 S.E.2d 116 (S.C. 2003), in which the South Carolina Supreme Court held that no taking occurred when the state denied a permit to bulkhead and backfill tidelands, because tidelands were public trust property.

Courts further inquire: **What are the landowner’s common law rights and duties?** For example, no landowner has a right to create a nuisance. What are the landowners reasonable, investment-backed expectations for the property? See generally *Penn Central Transportation Co. v. City of New York*, 438 U.S. 104 (1978), in which the Supreme Court indicated that factors relevant to determination of a taking included “the character of the government action,” “the economic impact of the regulation on the claimant,” and “the extent to which the regulation has interfered with distinct investment-backed expectations.” *Id.* at 124.

The nature of the government action and the need for regulation.

In addressing the nature of the government actions and the need for regulation, courts consider the threats that private actions pose to public health and safety and the overall need for the regulations.

Focusing more specifically on the nature of the government action, courts ask:

Has the regulation been adopted to serve adequate goals? Landowners have apparently never succeeded (I could find no appellate case) in attacking floodplain regulations as lacking adequate goals. For a case upholding goals see, e.g., *Society for Environmental Economic Development v. New Jersey Department of Environmental Protection*, 504 A.2d 1180 (N.J., 1985).

Does the regulation have a reasonable relationship to the regulatory goals? Landowners have also very rarely succeeded in attacking floodplain regulations as lacking adequate nexus to regulatory goals. For a single example, see *Sturdy Homes, Inc. v. Town of Redford*, 186 N.W.2d 43 (Mich. 1971) (No evidence of flooding for an area regulated as a floodplain). If a landowner claims that regulations violate substantive due process because they lack an adequate relationship to regulatory goals, the landowner's burden to overcome the presumption of validity is particularly great if a legislative act or expert agency action is involved. Courts have held that with regard to local zoning adopted by a local legislative body, "[I]n order to support his constitutional claims the plaintiff is required to prove that the defendant's actions were clearly arbitrary, unreasonable, and discriminatory and bore no substantial relation to the health, safety, convenience and welfare of the community." *Burns v. City of Des Peres*, 534 F.2d 103, 108 (8th Cir. 1976), cert. denied, 429 U.S. 861 (1976). Courts have held that if the issue is "fairly debatable," a legislative act must be upheld. See *Shelton v. City of College Station*, 780 F.2d 475 (5th Cir. 1986), cert. denied, 477 U.S. 905 (1986).

Are the regulations discriminatory? Courts are more likely to find a taking if there is any hint of discrimination or unfairness. Conversely, landowners have not succeeded in attacking floodplain regulations as discriminatory except where discrimination was also linked to takings challenges. See, e.g., *Baggs v. City of South Pasadena*, 947 F.Supp. 1580 (Fla., 1996) where a court rejected discrimination charges where a variance had been granted to some landowners but not to others. See also *Hansel v. City of Keene*, 634 A.2d 1351 (N.H., 1993).

Has a community failed to follow statutory procedures in adopting and implementing regulations (e.g., notice, hearing, publication of maps)? Courts have required that communities follow statutory procedures in adopting and administering regulations and have occasionally invalidated regulations or permit decisions on this basis. See, e.g., *Ford v. Board of County Commissioners of Converse County*, 924 P.2d 91 (Wyo., 1996).

These inquiries concerning the nature of the government actions are relevant to the overall balancing of public and private interests in deciding whether an uncompensated "taking" has occurred. However, the inquiries may also form an independent basis for invalidation of regulations in some situations, even if a court decides there has been no taking.

The impact of the regulation on the landowner.

In evaluating the impact of the regulation on the landowner, courts want to know: **What has the landowner paid for the land? What are the taxes? What are the landowner's investment backed expectations? Does the landowner have some existing economic use of the land (e.g., a residence, agriculture, forestry, etc.)? If not, does the landowner have some economic use for the entire property? What is the diminution in value due to the regulations?** See, e.g., *McElwain v. County of Flathead*, 811 P.2d 1267 (Mont., 1991) (Court upheld 100-foot setback between septic tank field and floodplain against claim of taking although the regulation reduced property values from \$75,000 to \$25,000, because the property owner was still able to utilize the property although not as near the river).

Considering the nature of the landowner's interest, the nature of the government's action, and the impact on the landowner, courts balance public interests and private rights to decide whether regulations have "gone too far." See *Penn Central Transportation Co. v. City of New York*, 98 S.Ct. 2646 (S. Ct., 1978) (Court upheld denial of air rights over Grand Central Station as not a taking and looked at the impact of the regulations on the entire property). In general, it is only when floodplain regulations "deny all economic use" of lands that floodplain regulations have "gone too far" and encounter successful takings challenges.

The "denial of all economic use" test was set forth by Justice Scalia as a "categorical" test for taking in the 1992 Supreme Court decision, *Lucas v. South Carolina Coastal Council*, 112 S.Ct. 2886 (1992), although this test has been applied for many years in state courts. Justice Scalia concluded that "[w]here the State seeks to sustain regulation that deprives land of all economically beneficial use, we think it may resist compensation only if the logically antecedent inquiry into the nature of the owner's estate shows that the proscribed use interests were not part of this title to begin with." He emphasized, however, that this categorical rule applies only where there is a total loss of value through regulation.

Justice Scalia analogized regulations that prohibit all economically beneficial use of land to "permanent physical occupation" of land in arguing that such regulations should be subject to a categorical determination of taking if limitations upon use are not found in the property concepts of state law (like those outlined in Box 1 and discussed above). He offered the following guidance in deciding whether state property law limitations upon use would prevent the application of the categorical rule:

Any limitation so severe cannot be newly legislated or decreed (without compensation), but must inhere in the title itself, in the restrictions that background principles of the State's law of property and nuisance already place upon land ownership. A law or decree with such an effect must, in other words, do no more than duplicate the result that could have been achieved in the courts—by adjacent landowners (or other uniquely affected persons) under the State's law of private nuisance, or by the State under its complementary power to abate nuisances that affect the public generally, or otherwise.

On this analysis, the owner of a lake bed, for example, would not be entitled to compensation when he is denied the requisite permit to engage in a landfill operation that would have the effect of flooding

others' land [*emphasis added*]. Nor the corporate owner of a nuclear generating plant, when it's directed to remove all improvements for its land upon discovery that the plant sits astride an earthquake fault. Such regulatory action may well have the effect of eliminating the land's only economically productive use, but it does not proscribe a product use that was previously permissible under relevant property and nuisance principles. The use of these properties for what are now expressly prohibited purposes was always unlawful, and (subject to other constitutional limitations) it was open to the State at any point to make the implication of those background principles of nuisance and property law explicit. . . . The "total taking" inquiry we require today will ordinarily entail (as the application of state nuisance law ordinarily entails) analysis of, among other things, the degree of harm to public land and resources, or adjacent private property, posed by the claimant's proposed activities . . . , the social value of the claimant's activities and their suitability to the locality in question . . . , and the relative ease with which the alleged harm can be avoided through measures taken by the claimant and the government (or adjacent private landowners) alike. . . . The fact that a particular use has long been engaged in by similarly situated owners ordinarily imports a lack of any common-law prohibition (though changed circumstances or new knowledge may make what was previously permissible no longer so. . . . So also does the fact that other landowners, similarly situated, are permitted to continue the use denied to the claimant.

The denial of all economic use test will be discussed in a variety of contexts below.

Performance Regulations and Denial of All Economic Use

Will performance-oriented, no adverse impact floodplain regulations deny all economic use or be subject to other successful takings challenges?

Denial of all economic use is rarely an issue with performance-oriented regulations, including a performance-oriented no adverse impact standard. With a performance-oriented approach, landowners have a number of options for achieving the standard. This may include both primary and secondary uses. As noted by the Nebraska court of appeals in *Bonge v. County of Madison*, 567 N.W.2d 578 (Neb., 1997), "[T]o establish that a regulation constitutes a taking, the landowner bears the burden of showing not only that all primary uses are unreasonable, but also that no reasonable secondary use (one permitted by special use permit or variance) is available."

For examples of cases sustaining performance-oriented floodplain regulations see:

- *In the Matter of Quality by Father & Son, Ltd. v. John Bruscella*, 666 N.Y.S.2d 380 (N.Y., 1997) (Denial of a variance for a house constructed below the flood elevation specified in a floodplain ordinance was valid).
- *Beverly Bank v. Illinois DOT*, 579 N.E.2d 815 (Ill., 1991) (Floodplain legislation that restricted landowners from building in floodways was rationally related to several state interests and constitutional).

- *Responsible Citizens v. City of Asheville*, 302 S.E.2d 204 (N.C., 1983) (Performance standard floodplain regulations are not a taking).
- *Rolleston v. State*, 266 S.E.2d 189 (Ga., 1980) (Georgia’s Shore Assistance Act requiring permits for altering the shore is valid and not a taking).
- *Kopelzke v. County of San Mateo, Bd. of Supervisors*, 396 F. Supp 1004 (D. Cal., 1975) (County regulations requiring a geologic report concerning soil stability not a taking).

Denials of individual permits or variances or refusal to approve subdivisions for failure to comply with performance standards have also been broadly held not to be a taking. See, for example:

- *Wilkerson v. City of Pauls Valley*, 24 P.3d 872 (Okla., 2002) (Mobile home park operator failed to demonstrate that city’s denial of his request for variance for placement of additional homes on existing lots was abuse of discretion, contrary to law, or clearly against weight of evidence provided).
- *Gregory v. Zoning Board of Appeals of the Town of Somers*, 704 N.Y.S.2d 638 (N.Y., 2000) (Court upheld denial of a variance to a landowner to build a single-family residence with frontage on only a dirt road subject to ponding, deep ruts, abrupt grade, and vegetation because the condition of the dirt road made “emergency response difficult”).
- *Sarasota County v. Purser*, 476 So. 2d 1359 (Fla., 1985) (Court upheld denial of a special exception for a 350-unit mobile home park in the floodplain).
- *Rolleston v. State*, 266 S.E. 2d 189 (Ga., 1980) (Denial of permit for bulkheading pursuant to Georgia Shore Assistance Act not a taking).
- *Creten v. Board of County Commissioners*, 466 P.2d 263 (Kan., 1970) (Court sustained denial of county permit for mobile home park in an industrial area subject to odor nuisances and flooding).
- *Falcone v. Zoning Board of Appeals*, 389 N.E.2d 1032 (Mass., 1979) (Court held that zoning board of appeals did not exceed its authority in denying subdivision application for failure to comply with floodplain ordinance).
- *Kraiser v. Zoning Hearing Board*, 406 A.2d 577 (Pa., 1979) (Court upheld decision of zoning hearing board of township denying a variance for a duplex residential dwelling in a 100-year floodplain conservation zone, based upon substantial evidence of drainage and flooding problems and the possibility of increasing hazards to other buildings).
- *Vartelas v. Water Resources Comm’n.*, 153 A.2d 822 (Conn., 1959) (Court upheld denial of a single permit with a particular design and construction materials pursuant to a Connecticut state-level floodway program).

This is not to suggest that performance standards could not be held unreasonable or a taking if they made no sense (e.g., adoption of flood-related performance standards for an area not subject to flooding) or if they, in effect, prevented all economic, non-nuisance activities.

Attachment of Conditions to Permits

May governments attach conditions to permits to reduce the impacts of proposed activities on flooding and to protect structures? For example, might a state or federal agency attach a condition to a floodplain permit that requires the permittee to acquire flood easements from other potentially damaged property owners? Or will this be a taking under the “balancing” or “denial of all economic use” tests?

Courts have, with very little exception, upheld the conditional approval of permits or subdivision plats, provided the conditions are reasonable and proportional to the impacts of the permitted activity. Such conditional approvals are common with performance standard hazard-related regulations. Conditions may include design changes, preservation of floodways, dedication of certain floodplain areas to open space uses, adoption of deed restrictions for certain high risk areas, installation of stormwater drainage and detention areas, etc. This support for hazard mitigation conditions is due to the strong judicial support for hazard prevention and reduction goals and the clear relationship (in most instances) between the conditions and these goals. Examples of cases sustaining conditions include:

- *New City Office Park v. Planning Board of Town of Clarkstown*, 533 N.Y.S.2d 786 (N.Y., 1988) (Denial of site plan for office park was justified because it did not comply with planning board’s requirements for building in the floodplain. Regulations required compensatory storage).
- *Wilson v. Dept. of Environmental Conserv.*, 524 N.Y.S.2d 45 (1988) (State could condition a building permit upon obtaining septic tank permit).
- *Board of Supr’s of Charlestown Tp., v. West Chestnut Realty Corp.*, 532 A.2d 942 (Pa., 1987) (Court held that a condition to preliminary approval of a detailed stormwater plan was justified prior to final subdivision approval).
- *Osborn v. Iowa Natural Resources Council*, 336 N.W.2d 745 (Iowa, 1983) (Court held that conditions for an after-the-fact permit for a levee and straightening a creek channel were valid. These conditions included widening the channel, relocation of the levee, realignment of the channel, and providing a strip of land along the channel for wildlife habitat).
- *Cohalan v. Lechtrecker*, 443 N.Y.S.2d 892 (1981) (City may rezone property conditioned upon private declaration of covenant restricting use).
- *Metropolitan St. Louis Sewer District v. Zykan*, 495 S.W.2d 643 (Mo., 1973) (Court upheld regulations of the Metropolitan Sewer District requiring construction of drainage facilities in subdivisions and ordered both specific performance and payment of damages).
- *Longridge Estates v. City of Los Angeles*, 6 Cal. Rptr. 900, (Cal., 1960) (Court held that city could reasonably charge subdivider for connection to use municipal storm drains and sewers where fees went exclusively for the construction of outlet sewers).
- *City of Buena Park v. Boyar*, 8 Cal. Rptr. 674 (Cal., 1960) (Court upheld condition that \$50,000 be paid by developer to permit municipal construction of a drainage ditch to carry away surface waters from subdivision as a reasonable condition for subdivision plat approval).

- *County Council for Montgomery County v. Lee*, 148 A.2d 568 (Md., 1959) (Court held that county could require subdivider to obtain drainage easements for construction of storm drainage outlet and file a performance bond to assure that the easements would be acquired).

In broader land use control contexts, courts have sometimes disapproved conditions as a violation of due process or, in some instances, as a taking where the statute or ordinance did not expressly authorize such conditions, the conditions were unreasonable (not related to the regulatory goals), or the condition was not proportional to the impact of the proposed use. For example, in *Paulson v. Zoning Hearing Board of Wallace*, 715 A.2d 785 (Pa. Commw., 1998), a court held that efforts to restrict the hours of operation of a go-cart operation in the floodplain in issuing a special exception for a floodplain were not reasonably related to ordinance goals. The U.S. Supreme Court in *Nollan v. California Coastal Comm'n*, 483 U.S. 825 (1987), held that a public beach access dedication requirement did not bear a reasonable relationship (nexus) to regulatory goals and was a taking of private property. The U.S. Supreme Court in *Dolan v. City of Tigard*, 114 S.Ct. 2309 (1994), further held that regulations adopted by the City of Tigard which required a floodplain landowner to dedicate a bike path along a stream were unconstitutional and a taking because the bike path requirement was not “roughly proportional” in “nature and extent to the impact of the proposed development.” The Supreme Court clarified this requirement in the *City of Monterey v. Del Monte Dunes at Monterey, Ltd.*, 526 U.S. 687 (1999), by stating that it applied to “land use decisions conditioning approval of development on the dedication of property to public use.”

There was some concern that courts would broadly disapprove conditions in light of the *Nollan* and *Tigard* decisions. However, this has not come to pass. State and federal courts continue to approve reasonable conditions, including dedications. See, e.g., *City of Annapolis v. Waterman*, 745 A.2d 1000 (Md., 2000), for a particularly thorough analysis and many case citations. But see *Isla Verde International Holdings, Inc. v. City of Camas*, 990 P.2d 429 (Wash., 1999), in which the court held unconstitutional an across-the-board 30% lot area dedication requirement.

One way for a community to address case-by-case determinations of “rough proportionality” with regard to dedication requirements is suggested by an Oregon case, *Lincoln City Chamber of Commerce v. City of Lincoln City*, 991 P.2d 1080 (Ore. 1999). In this case the court upheld an ordinance requiring dedication of “easements for drainage purposes” and “to provide storm water detention, treatment and drainage features and facilities.” The ordinance further required that “[i]f the applicant intends to assert that it cannot legally be required, as a condition of building permit or site plan approval, to provide easements or improvements at the level otherwise required by this section, the building permit or site plan review application shall include a “rough proportionality” report, prepared by a qualified civil or traffic engineer. . . .”

Restrictive Regulation of High Risk Areas

May a government unit adopt tight regulations for high risk areas, such as floodways and velocity zones and dunes, to implement a no adverse impact standard?

Courts have upheld very restrictive regulations for high risk areas even when there were few economic uses for the lands because of the potential nuisance impacts of activities in these areas and because of public trust and public ownership issues. Examples include:

- *Wyer v. Board of Environmental Protection*, 747 A.2d 193 (Me., 2000) (Court upheld denial of a variance for a sand dune area against claims of taking because the property had uses for parking, picnics, barbecues, and other recreational uses and was of value to abutters).
- *Stevens v. City of Cannon Beach*, 854 P.2d 449 (Ore., 1993) (Court held that denial of a permit to build a sea wall as part of development for motel or hotel use in a flood area was not a taking).
- *Our Way Enterprises, Inc. v. Town of Wells, et al.*, 535 A.2d 442 (Me., 1988) (Court upheld a 20-foot coastal setback from seawall).
- *Usdin v. State Dept. of Environmental Protection*, 414 A.2d 280 (N.J., 1980) (Court upheld state floodway regulations prohibiting structures for human occupancy, storage of materials, and depositing solid wastes because of threats to occupants of floodway lands and to occupants of other lands).
- *Maple Leaf Investors, Inc. v. State Dept. of Ecology*, 565 P.2d 1162 (Wash., 1977) (Court upheld denial of a permit for proposed houses in floodway of the Cedar River because there was danger to persons living in a floodway and to property downstream).
- *Turner v. County of Del Norte*, 24 Cal. App. 3d 311 (Cal., 1972) (Court upheld county floodplain zoning ordinance limiting areas subject to severe flooding to parks, recreation, and agricultural uses).
- *Spigle v. Beach Haven*, 218 A.2d 129 (N.J., 1966) (Court sustained dune and fence ordinances for a beach area subject to severe storm damage where buildings had been destroyed in a 1962 storm. The regulation effectively prevented all building or rebuilding on several lots. The Court held that the plaintiff had not met the burden of proving a taking because he had failed to prove “the existence of some present or potential beneficial use of which he has been deprived”).
- *McCarthy v. City of Manhattan Beach*, 264 P.2d 932 (Cal., 1953) (Court sustained a zoning ordinance that restricted ocean-front property to beach recreation uses for an area subject to erosion and storm damage due, in part, to the fact that there were questions about the safety of the proposed construction at the site).

Parcel as a Whole Doctrine

Can governmental units adopt very stringent regulations, such as setbacks and floodway regulations that apply only to portions of lots, without encountering problems with denial of all economic use?

Floodway regulations, beach setbacks, bluff setbacks, fault line setbacks, and other regulations for high risk areas that prohibit development in narrow strips of land pose less severe taking problems than regulations that apply to broader areas. The U.S. Supreme Court and lower federal and state courts have usually examined the impact of the regulation upon entire parcels in deciding whether a taking has occurred. Lot sizes, therefore, also become important. Examples of U.S. Supreme Court cases in which the court refused to divide single parcels into discrete segments for a taking analysis include:

- *Tahoe-Sierra Preservation Council, Inc. v. Tahoe Regional Planning Agency*, 122 S.Ct. 1465 (2002) (Court upheld temporary ordinances for “high hazard” (steep slope) zones near Lake Tahoe. The Court applied a “whole parcel” analysis to the duration of the regulation to decide that no taking had occurred).
- *Palazzolo v. Rhode Island*, 121 S.Ct. 2448 (2001) (Court held that test for taking was the impact on value of the entire parcel and not simply the wetland portion).
- *Keystone Bituminous Coal Association v. DeBenedictis*, 107 S.Ct. 1232 (1987) (Court considered the impact of regulations restricting the mining of coal upon the entire property, not just the areas where coal could not be removed).
- *Penn Central Transportation Co. v. City of New York*, 98 S.Ct. 2646 (1978) (Court upheld denial of air rights over Grand Central Station as not being a taking and looked at the impact of the regulations on the entire property).
- *Gorieb v. Fox*, 47 S.Ct. 675 (1927) (Court sustained a street setback of about 35 feet).

Many examples can be also cited of lower courts sustaining regulations that tightly restrict only a portion of a property. See, for example:

- *K & K Const. Inc., v. Department of Natural Resources*, 575 N.W.2d 531 (Mich., 1998) (Three contiguous parcels should be considered in deciding whether wetland regulations are a taking).
- *Zealy v. City of Waukesha*, 548 N.W.2d 528 (Wis., 1996) (Landowner’s whole property needed to be considered, not just portion subject to wetland restriction, to determine whether a taking had occurred).
- *MacLeod v. County of Santa Clara*, 749 F.2d 541 (9th Cir., 1984), cert. denied 472 U.S. 1009 (1985) (Denial of a permit for a timber operation on part of a parcel not a taking).
- *Deltona Corp. v. United States*, 657 F.2d 1184 (Ct. Cl., 1984) (U.S. Court of Claims held that denial of a permit by the Corps of Engineers to dredge and fill a mangrove wetland in Florida did not take private property because the denial of the permit would affect the usefulness of only a portion of the property).
- *Moskow v. Commissioner of the Dept. of Environmental Management*, 427 N.E.2d 750 (Mass., 1981) (Court upheld against claims of taking a state restrictive order for a wetland area important in preventing floods in the Charles River watershed).
- *Krahl v. Nine Mile Creek Watershed District*, 283 N.W.2d 538 (Minn., 1979) (Minnesota Supreme Court held that watershed district’s floodplain encroachment regulations tightly controlling development in 2/3 of an 11-acre tract were not an unconstitutional taking of property).

Because courts usually look at the impact of regulations upon an entire property, large-lot zoning for hazard areas may make sense, not only in providing a greater potential for safe building sites on each lot but also in insuring the constitutionality of regulations. Courts have often sustained large-lot zoning for hazard-related areas as serving proper goals. See, for example:

- *Kirby v. Township Committee of the Township of Bedminster*, 775 A.2d 209 (N.J., 2000) (Court sustained 10-acre minimum lot size for environmentally sensitive area that included some floodplain).
- *Grant v. Kiefaber*, 181 N.E.2d 905 (Ohio, 1960), affirmed 170 N.E.2d 848 (Ohio, 1960) (Court sustained 80,000-square-foot lot size for a floodprone area).
- *Gignoux v. Kings Point*, 99 N.Y.2d 285 (N.Y., 1950) (Court sustained 40,000-square-foot lot size for swampy area and observed that the “best possible use of this lowland would be in connection with its absorption into plots of larger dimensions”).

Although courts have, in general, examined the impact of regulations upon an entire property, there are exceptions. For example, the U.S. Supreme Court in *Nollan v. California Coastal Commission*, 107 S. Ct. 3141 (1987), held that an attempt by the California Coastal Commission to require a landowner to dedicate a beach access agreement as a condition to receiving a building permit was a taking, although this dedication affected only a portion of the property. However, this factual situation was different from most others because the Court held that this restriction lacked adequate relationship to the regulatory goals and attempted to allocate a portion of the land to active public use. See also *Dolan v. City of Tigard*, 114 S.Ct. 2309 (1994), and discussion above.

Open Space Zoning

Could governmental units apply open space zoning in implementing a no adverse impact standard?

Quite a number of courts have sustained regulations that restrict entire hazard areas to open space uses, although there are some adverse decisions as well where the regulations were found to deny all economic use. Examples of cases upholding such regulations include:

- *Bonnie Briar Syndicate, Inc. v. Town of Mamaroneck, et al.*, 94 N.Y.2d 96 (N.Y., 1999) (Court held that recreation zoning was not a taking for a golf course which was partially floodplain).
- *Dodd v. Hood River County*, 136 F.3d 1219 (C.A. 9, 1998) (Court held that prohibition of homes in a forest zone was not a taking).
- *Hall v. Board of Environmental Protection*, 528 A.2d 453 (Me., 1987) (Court held that sand dune law was not a taking despite a prohibition of year-round structures, because the owner could live in or rent out spaces for motorized campers connected to utilities).
- *Krahl v. Nine Mile Creek Watershed District*, 283 N.W.2d 538 (Minn., 1979). (Court held that watershed district’s floodplain encroachment regulations affecting 2/3 of an 11-acre tract were not an unconstitutional taking).
- *Turnpike Realty Co. v. Town of Dedham*, 284 N.E.2d 891 (Mass., 1972), cert. denied, 409 U.S. 1108 (1973) (Court upheld zoning regulations essentially limiting the floodplain to open space uses despite testimony that the land was worth \$431,000 before regulations and \$53,000 after regulation).

Several older, contrary cases exist in which courts held that regulations prevented all economic use of entire lands. But in these cases, the courts found that proposed uses would not cause safety threats or cause nuisances, or the regulations were subject to other infirmities. See, for example:

- *Dooley v. Town Plan & Zoning Comm'n*, 197 A.2d 770 (Conn., 1964) (Court held that open space floodplain zoning ordinance that denied all economic use of specific land was a taking).
- *Morris County Land Imp. Co. v. Parsippany-Troy Hills Tp.*, 193 A.2d 232 (N.J., 1963) (Court invalidated in total a wetland conservancy district which permitted no economic uses where the district was primarily designed to preserve wildlife and flood storage).

When the Only Economic Uses Threaten Public Safety or Cause Nuisances

Can governmental units prohibit uses and activities that may threaten safety or cause nuisances, even if these activities may be the only economic use of specific hazard areas?

In a fair number of cases, courts have held regulations valid even where the regulations prevent all economic use of lands if the proposed use would be nuisance-like, threaten public safety, or be “unreasonable” in terms of the rights and duties of all landowners. Here is where common law rights and duties, discussed above and referenced by Scalia in the *Lucas* decision, become important. Examples include:

- *Goldblatt v. Town of Hempstead*, 82 S. Ct. 987 (1962) (Supreme Court upheld ordinance which prohibited extraction of gravel below the groundwater level against a taking claim due, in part, to the possible safety hazards posed by such open water pits. This ordinance effectively prevented an economic use of the land).
- *Consolidated Rock Products Co. v. Los Angeles*, 370 P.2d 342, appeal dismissed, 371 U.S. 36 (Cal., 1962) (Court held that regulations which prevented the extraction of sand and gravel in a floodplain were not a taking despite the fact that extraction was the only economic use for the land, because extraction of sand and gravel would have had nuisance-like impacts upon the suffers of respiratory ailments who lived nearby).
- *McCarthy v. City of Manhattan Beach*, 264 P.2d 932 (Cal., 1953), cert. denied, 348 U.S. 817 (1954) (Court held that open space beach regulations designed in part to prevent construction in areas subject to flooding and erosion were not a taking as applied to the facts of the case because the plaintiff did not show that the proposed use would have been safe).

I was, in fact, unable to find a single case from any jurisdiction in which a landowner prevailed in a taking suit where the proposed use would have caused a nuisance or would have threatened public safety.

A somewhat more difficult issue arises where the proposed activity will not threaten adjacent lands but will cause damage primarily to the landowner if the activity is located in a high risk area. For example, a landowner may wish to site his or her home in a coastal wave or erosion zone. This may not increase flood or erosion losses on other property but the home itself may be destroyed. It has been argued that prohibition of such an activity is, in fact, “protecting a man against himself.”

Prohibition of activities that may damage the landowner does have some support in other legislation. For example, legislatures have adopted vehicle seat belt, motorcycle helmet, and other laws that also are primarily designed to reduce injuries to individuals from risks they consciously assume. Such laws have been upheld in most instances. See, J. Kusler et al., *Regulation of Flood Hazard Areas to Reduce Flood Losses*, Vol. 1, (1972) at p. 309 et seq. Part of the justification for such laws is that seriously injured individuals often do not pay the medical or long-term disability costs, which then are borne by society as a whole.

This may also be true for construction of a home in a flood or erosion area. The individual constructing his or her house in a high risk hazard area (flash flooding, avalanche, mudslide, landslide, earthquake, fault line) may place not only himself in danger but also his family, friends, and guests. Subsequent purchasers may be unaware of and threatened by the hazards. This can be a real problem because vacation properties (e.g., beach, mountainside) have a high turnover rate and are often purchased by visitors not familiar with the area. In addition, over time many of these private structures are converted to rental units and condominiums with broader public exposure to risk. The costs of extending public services to these areas may be high and such services may be repetitively damaged at public expense. If emergency rescue is necessary during a hazard event, police, fire, or other rescue personnel may be put at risk. Finally, governments often end up paying much of the bill for private occupation of high risk areas through disaster assistance, flood loss reduction measures, etc.

Public safety and welfare arguments, therefore, can be made that development (or at least development lacking extensive safety measures) is unreasonable in high risk areas even where such development lacks common law nuisance impacts. For example, in *Spiegle v. Beach Haven*, 218 A.2d 129 (N.J., 1966) the New Jersey Supreme Court held that a beach setback line that prevented building in an area subject to severe storm damage was not a taking, in part because the proposed activities were not “reasonable” in the circumstances, given the severe storm hazard. The language of the court is interesting and may be similar in other high risk situations (Id. at 137):

Plaintiffs failed to adduce proof of any economic use to which the property could be put. The borough, on the other hand, adduced unrebutted proof that it would be unsafe to construct houses oceanward of the building line (apparently the only use to which lands similarly located in defendant municipality had been put) because of the possibility that they would be destroyed by a severe storm—a result which occurred during the storm of March, 1962. Additionally, defendant submitted proof that there was great peril to life and health arising through the likely destruction of streets, sewer, water and gas mains, and electric power lines in the proscribed area in an ordinary storm. The gist of this testimony was that such regulation prescribed only such conduct as good husbandry would dictate that plaintiffs should themselves impose on the use of their own lands. Consequently, we find that plaintiffs did not sustain the burden of proving that the ordinance resulted in a taking of any beneficial economic use of their lands [*emphasis added*].

How Safe is “Safe”?

Who decides what “safe” means? To what extent will courts defer to legislative bodies on this issue?

This is still an open question. However, courts have traditionally afforded legislative bodies broad discretion in deciding acceptable and unacceptable limits when public health and safety is involved. See, for example, the U.S. Supreme Court case *Queenside Hills Realty Company v. Saxl*, 66 S. Ct. 850 (1946), in which the Court upheld a New York “Multiple Dwelling Law” which required that lodging houses of non-fireproof construction in existence before enactment of the statute be modified to comply with safety requirements. The owner of such a building argued that the cost of installing such a system (about \$7500) was too great. The Court rejected the due process arguments with language that can easily be applied to earthquake or flood retrofitting as well as regulation of new development (Id. at 83):

[T]he legislature may choose not to take the chance that human life will be lost in lodging house fires and adopt the most conservative course which science and engineering offer. It is for the legislature to decide what regulations are needed to reduce fire hazards to a minimum. . . . [I]n no case does the owner of property acquire immunity against exercise of police power because he constructed it in full compliance with the existing laws.

Summary, Constitutional Challenges to Regulations

Courts are likely to uphold a performance-oriented, no adverse impact standard in floodplain regulations and more specific implementing regulations against claims of taking or unreasonableness. Such community regulations could be more stringent than existing NFIP minimum standards or state standards. FEMA encourages more restrictive state and local regulations. Local no adverse impact regulations could require additional freeboard, establish setbacks, impose tighter floodway restrictions, and very strictly regulate high risk areas. However, communities should approach with particular care situations in which regulations prevent all economic use of entire properties, particularly where there are uses for these lands that pose no threats to safety or have no nuisance-like impacts. Consideration could be given to creating a residual value in the property through transferable development rights, seasonal recreational use, or open space use in conjunction with adjacent properties.

PART 4

KEEPING OUT OF LEGAL TROUBLE

What, then, can a community do when applying a no adverse impact approach to reduce its potential common law liability for increased flood or erosion damage? How can it avoid constitutional problems with no adverse impact regulations for private properties?

To reduce potential liability from landowner suits due to increased flood or erosion damage induced by the community (Part 2, above), a community could:

1. **Adopt a no adverse impact standard for public works projects.** Potential liability will be reduced if flood and erosion on adjacent lands is not increased.
2. **Incorporate the no adverse impact standard in master plans and policies.** Implement this standard, in part, through master plans for community public lands and infrastructure construction and management, including bridge and road construction and reconstruction, sewer and water installation, use of public parks and other public lands, construction of public buildings, construction of flood control structures, and other activities.
3. **Conduct a liability audit.** Assess existing situations for potential liability by determining where increased flooding or erosion on private lands is likely to occur as a result of inadequate culverts or bridges, public roads or fill, increased runoff due to urbanization, or flooding due to approval of subdivisions and acceptance of dedicated stormwater facilities. Hazard mitigation measures can then be focused on these areas to reduce potential liability.
4. **Carry out hazard reduction planning.** Develop and implement plans for reducing potential flood and erosion losses and liability through improved flood mapping, warning systems, evacuation plans, relocation of floodprone structures, resizing of bridges and culverts, acquisition of flood easements, and flood control. All these measures can reduce the potential for successful liability suits.
5. **Encourage private landowners to purchase insurance.** Landowners are less likely to sue governments for flood and erosion damage if their insurance coverage compensates them for their losses.
6. **Adopt floodplain regulations for private property.** A community may reduce landowner suits claiming that the community has increased flood heights or velocities by adopting regulations that restrict the intensive use of floodplain lands. For example, it can adopt large-lot zoning, setbacks, and increased elevation requirements for private structures in such areas.

To reduce potential takings claims based on floodplain regulations that incorporate a no adverse impact standard (Part 3 above), a community could:

1. **Fairly and evenly apply a no adverse impact standard.** As discussed above, courts are more likely to find a taking if there is any hint of discrimination or unfairness in regulation. A community should implement the no adverse impact standard fairly and uniformly to building permits and site plan review, subdivision approval, acceptance of dedicated open space and stormwater facilities, building code inspections, and enforcement. Courts provide great support for regulations that are fairly and uniformly implemented.
2. **Require flood easements for increases in flood heights or velocities.** Allow landowners to increase flood heights and velocities only through special exception or variance processes. Allow such increases only if landowners will acquire flood easements from anyone who may be damaged by the increased flood heights and velocities.
3. **Prepare detailed and accurate maps.** Develop particularly accurate flood and erosion maps and other information in cases where the regulations must tightly control development (e.g., an urban floodway) and there is the possibility of a taking challenge based on denial of all economic use.
4. **Reduce real estate taxes.** Many states allow local governments to reduce real estate taxes for wetlands, agricultural lands, and other open spaces.
5. **Undertake education efforts.** Work actively with landowners to educate them about flood hazards and help them prevent future increases in flood hazards. Such measures can help reduce their potential liability to other private landowners for increasing flood heights and velocities.
6. **Help landowners identify economic uses.** Work actively with landowners to help them identify economic uses for their floodplain lands, particularly in situations where regulations may severely limit development on existing lots. Such uses could include farming, forestry, parking, recreation areas in subdivisions, open spaces to meet minimum lot size requirements for residential zoning (by placing the structures on uplands), ecotourism, and other activities.
7. **Undertake selective acquisition.** Acquire and place in public ownership selected floodplain areas as part of programs for post-flood relocation, greenways, stormwater management, parks and recreation, and other goals. Acquisition may be particularly appropriate in situations where regulations may deny all economic use of low-risk private lands.

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