FLOOD RISK IN THE COURTS: REDUCING GOVERNMENT LIABILITY WHILE ENCOURAGING GOVERNMENT RESPONSIBILITY

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Hurricane Katrina
This paper is one of several prepared by the author for the Association of State Floodplain Managers dealing with legal issues in floodplain management. This paper has been prepared to help governments administratively and/or legislatively reduce liability for flood losses and better meet “taking” challenges to regulations while maintaining government responsibility in addressing flood problems. It addresses a series of questions: Why is flood-related liability a concern of governments? What governmental units are most susceptible to suits? Are government staff personally liable? Is government liability consistent with sound public policy? How does degree of flood risk affect liability based upon common law legal theories? Constitutional theories? What measures can governments take to reduce successful suits based upon common law or Constitutional legal theories while, simultaneously, acting responsibly?

For other papers prepared by the author for the Association of State Floodplain Managers see Jon Kusler, Esq. and Ed Thomas, Esq., NAI and the Courts: Protecting the Property Rights of All Updated (2008); Jon Kusler, Esq., A Comparative Look at Public Liability for Flood Hazard Mitigation (2009); Jon Kusler., Esq., Professional Liability for Construction in Flood Hazard Areas (2007). All of these are available as “legal papers” on the Association of State Floodplain Managers web site: http://www.floods.org/index.asp?menuID=301&firstlevelmenuID=188&siteID=1.

For other related papers also located or referenced on the ASFPM web site see Ed Thomas, Esq. & Sam Riley Medlock, JD, CFM, Mitigating Misery: Land Use and Protection of Property Rights Before the Next Big Flood, 9 Vt. J. Envtl. L. 155 (2008); Ed Thomas, NAI Protecting the Property Rights of All: NAI Floodplain and Storm Water Management (2007). See web site, above, for a broader list of publications. See also footnote 157 below.

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The paper incorporates some materials from earlier papers by the author and by the author and Ed Thomas, Esq. dealing with liability for flood risks. The excellent work by Ed over a period of years and suggestions to me on the content of the present paper are much appreciated.

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Foundation, and others such as Dan Mandelker, Esq. who reviewed drafts of the paper and provided helpful comments.

The paper should not be considered “legal advice” because case law, statutes and regulations vary from state to state. For specific legal advice you should contact a lawyer in your jurisdiction.
EXECUTIVE SUMMARY;  
RECOMMENDATIONS

Courts are increasingly holding governments liable for flood damages including the “residual” flood risks from dikes, levees, stormwater systems and other flood reduction structures. Structures often decrease hazards on some lands and increase it on others, particularly for larger, less frequent floods which exceed design flows. The more severe the flood hazard risk including residual risks, the greater the potential for successful suit and the greater the care which governments must exercise.

On the other hand, courts are continuing to provide strong judicial support for floodplain regulations when challenged as an unconstitutional taking of private property without payment of just compensation. These include but are not limited to restrictive regulations for high risk areas such as coastal barrier islands and beaches, inland flash flood areas, dunes floodways and other areas with nuisance or public safety concerns.

In general, the greater the degree of hazard, the greater the judicial support for restrictive regulations, providing the hazards are properly documented and some economic uses remain for lands. Courts have upheld restrictive regulations even where few or no economic uses remain when uses have nuisance characteristics (e.g., block flood flows damaging adjacent lands) or threaten public safety.

Government employees are not, in general, personally liable for government actions which increase flood damages on private lands or for the adoption of floodplain regulations providing they act within the scope of their government duties and in good faith.

Governments have available to them a range of administrative actions to reduce liability based upon common law theories. These include government avoidance of actions which increase flood hazards and flood damages such as construction of roads which block flood flows, installation of bridges and culverts which increase flood heights and velocities, channelization which increases runoff, and construction of dams and levees which decrease flood heights and velocities in some contexts or events while increasing damages in others (e.g., overtopping or collapse of an urban levee). These include adoption of a “no adverse impact” policy as recommended by the Association of State Floodplain Managers which will both reduce government liability and encourage government responsibility.

States, the federal government, and local governments can also, through a variety of administrative actions, reduce the chances of successful Constitutional challenges to floodplain regulations. Most important are development of sound hazard information and adoption of performance standard regulations.
States and Congress can legislatively modify the rules of common law liability by statute through state and federal tort claim acts, emergency management statutes, or other statutes. However this may also have unintended results and discourage responsible government actions. It should be done with great care and consideration of long term implications that may add to the flood risk.

If responsible government decision-making as well as reduction in law suits is the goal, legislatures should avoid limitations upon liability which discourage long term consideration of hazards such as adoption of relatively short time frame statutes of repose for architects and engineers (e.g., 2-5 years) which begin to run from the time the architectural or engineering service is performed rather than the time injuries become apparent during a natural hazard event. It is often only then that design flaws are revealed. Such limitations on liability reduce government and private liability but they also discourage government responsibility.

If legislative bodies wish to reduce damage awards while still maintaining common law rules of liability for levees, they might provide some measure of liability protection for governments and contractors for “good faith” certification of compliance with specified design guidelines.

Should governments be held responsible for all losses? Governments need to be held responsible for their actions. But there should, arguably, be limits to government responsibility, particularly where landowners place themselves in harm’s way.

More specific issues pertaining to flood-related liability include the following. Each of issues, which are stated as questions, will be briefly addressed in this summary and then examined in greater detail in the paper:

**Why is flood-related liability a growing problem for governments?** As flood damages have increased and the foreseeability of flood events have increased, the number of flood and erosion-related law suits has also increased. Successful liability suits based upon natural hazards have not only become more common but the damage awards larger.

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   Recommendation #8: Congress should swiftly address growing concerns regarding liability for damages resulting from levee failures through exploration of a range of measures aimed at reducing the potential liability of engineering firms and/or government agencies that perform engineering services for levee systems (e.g., inspections, evaluations, design, construction administration, certification, or flood fighting.)

2 The term “responsible” government action is used in this paper to mean government flood-related actions which avoid “externalities”. For example, governments can responsibly construct bridges and install culverts with apertures large enough to conduct flood flows without increasing flood heights on adjacent lands.

Landowners have also increasingly challenged the Constitutionality of land and water regulations adopted by governmental units to reduce hazard losses as a “taking” of private property without payment of just compensation although only a few of these challenges have succeeded.

2. Why has the number of successful common law suits increased?

Flood damage-prone development continues in flood hazard areas despite the adoption of regulations by approximately 20,800 communities to comply with requirements of the National Flood Insurance Program. Regulations typically regulate only major floodplains, not hundreds of thousands of miles of floodplain along smaller streams, lakes, and coastal areas. Regulations, where adopted, typically allow development in the floodplain where structures are protected from the 100 year flood. Damage or destruction may occur with larger, less frequent floods. Calculations of the 100 year flood usually take into account only existing watershed conditions not future conditions so the protection can become quickly outdated. This also results flood damages. And, high risk flood factors (e.g. high velocity water, erosion, subsidence) are often not reflected in regulations.

Continued floodplain development means increased flood damages. Increased flood damages mean increased law suits based upon various legal theories: trespass, nuisance, negligence, riparian rights, surface water reasonable use doctrine, and “taking” without payment of just compensation.

More specific reasons for successful law suits are discussed in the paper.

3. What units of government are most susceptible to flood-related damage claims?

All levels of government--the federal government, states, and local governments--may be sued for negligence, nuisance, trespass, breach of contract, or the "taking" of private property without payment of just compensation for increasing flood hazards on private lands or for “taking” private property without payment of just compensation although vulnerability to suit varies.

As a practical matter, local governments are most vulnerable to liability suits because they are, in many contexts, the units of government most often undertaking activities which result in increased natural hazard losses or are approving development that may be flooded or whose impact may injure other properties. Most floodplain regulations are also adopted at the local level. However, states and federal agencies are also being sued in some contexts.

4. Is government liability consistent with sound public floodplain management policy?

The threat of law suits encourages governments to avoid increasing flood hazards. The threat encourages governments to carefully evaluate building permit applications and proposed subdivisions. It encourages governments to take into account residual risk in
constructing dikes and dams and levees in flood hazard areas. It encourages governments to carefully construct and maintain flood control works. It encourages governments to carefully operate flood warning systems.

The judicial trend toward holding governmental units and private landowners responsible for natural hazard losses caused by their actions (including losses due to residual flood risk from failure of structures such as levees) is consistent with the overall goal of responsible government decision-making for flood hazard areas.

On the other hand, the threat of lawsuits may discourage governments from undertaking flood loss reduction measures such as establishment of flood warning systems or adoption of regulations. It may discourage governments from allowing campers and others to use floodplains in public ownership. It may discourage governments from mapping floodplains with the fear that once they know the extent and severity of flood hazards this knowledge will be turned against them.

There is also much concern by governments and government staff that they might be held liable for increasing flood hazards, failing to prevent flood losses, or tightly regulating flood hazard areas. And, this has led to proposals to legislatively limit government liability for issuing floodplain permits which increase flood hazards on other lands, for failing to prevent flood damages, for failing to enforce floodplain regulations, and for providing assurance of the adequacy of levees for a 100 year flood.

A middle ground position concerning government liability may best serve the dual goals of reducing lawsuits while encouraging responsible decision-making. Continued liability is consistent with sound public policy where it encourages governments to consider flood risks including residual risks and to avoid externalities in their decision-making. It makes particular sense where governments can reduce the risk of liability through relatively inexpensive administrative measures.

But there may also be a need for limits. Legislative limitations upon common law liability may be appropriate in some circumstances. For example, emergency management or floodplain management statutes could be adopted or amended to exempt governments from liability for “natural” flood conditions, “vertical evacuation” in an emergency, or the non-negligent design of flood loss reduction structures which meet contemporary and current (not minimum) national standards.

5. To what extent are governmental officials liable as individuals?

In general, governmental employees at all levels of government acting in good faith and within the scope of their jobs are not personally liable for flood damages under common law or Constitutional theories although in the case of local governments, the governmental units for which they work may be held liable. Employee immunity at any level of government does not extend to ultra vires acts (acts outside of the scope of the employee’s duties). Employees may also, under limited circumstances, be held personally liable under 42 USC 1983 for actions which flagrantly violate Constitutional guarantees.
Courts are gradually expanding liability pursuant to 1983 although it remains very restricted.

6. Does the threat of common law liability increase with degree of flood risk?

The greater the flood and erosion risks caused by governments, the greater the resulting flood damages. The greater the resulting flood damages, the greater the chances of successful law suits.

7. How is the Constitutionality of regulations related to the degree of flood risk?

In general, the greater the flood risk, the greater the judicial support for floodplain regulations although courts have also broadly supported floodplain regulations for relatively low risk areas. Courts have broadly supported restrictive regulations for high risk areas based upon public safety, nuisance prevention, public trust and other concerns.

Courts have broadly upheld regulations for high risk areas, but they have also warned that that regulations which deny all economic use of lands may be a taking if such uses are not subject to restriction under state laws of nuisance and property.

8. How can governmental units reduce government flood-related tort liability through “administrative” measures?

The most important option a government typically has for reducing tort (common law) liability for flood losses while maintaining responsibility in the use of land is the prevention of increases in flood and erosion hazards due to government actions. To do this governments can best adopt a no adverse impact hazard management standard for new public and private activities and implement this goal through regulatory and nonregulatory approaches. Governments can also reduce to or below natural levels existing flood, erosion, and other hazards through structural works such as dams, levees, bioengineering and similar structural measures although these must be designed and used with care because they can increase flood damages in some instances such as catastrophic losses from larger than a design event or collapse of a levee while reducing it for lower frequency flood events.

Complete avoidance of hazard areas is particularly desirable for rapid onset and serious hazard areas such as flash floods, earthquakes, mudslides, landslides, and bluff caving. The degree of care exercised and the selection of mitigation measures should reflect the degree of risk both with regard to the type of natural hazard and the type of use (e.g., school in a flash flood area versus agricultural activity in a floodplain.

9. How can governmental units reduce Constitutional challenges to regulations through administrative measures?

The term “administrative” is used in this paper to mean actions which may be carried out by governments in the operation of their programs without changing the statutes authorizing their programs.
Governmental units may reduce the potential for successful Constitutional challenges to hazard area regulations in a number of ways which are also consistent with government responsibility in the management of floodplain areas.

These measures include: utilize a "performance standard" approach in regulations and allow variances or other special permits under controlled circumstances; develop and utilize accurate hazard maps; adopt and administer regulations in close conformance with statutory procedures including notice and hearing; insure that regulations are reasonable and fair in concept, administration and enforcement. Where restrictive regulations are adopted to serve multiple objectives such as simultaneous reduction of flood losses and protection of wildlife, governments should nevertheless provide careful documentation for natural hazards including threats to public health and safety and the potential for nuisances because courts give great weight to these factors in determining the validity of regulations.

If governments attach conditions to development permits such as preservation of floodway areas, governments should make sure that conditions are reasonably related to the impacts of the development. They should be particularly careful if dedications of land are required with the goal of providing public use areas. In such circumstances, governments should insure that the dedication requirements are related to and roughly proportional to the impacts generated by proposed activities.

10. How can governmental units legislatively reduce common law liability?

States have in most states already reduced local and state government liability for flood damages through adoption of immunities and exemptions in “tort claim acts”, “emergency management acts”, “recreational use” or other statutes. State legislatures and Congress could further reduce federal, state, and local liability by providing statutory liability exemptions for flood damages occurring in certain areas (e.g., beaches, unaltered floodplains in public ownership). They could exempt specified “emergency” activities such as emergency evacuations if they have not already done so. They could exempt certain types of design decisions (e.g., those consistent with accepted engineering practices). They could adopt relatively short time period statutes of repose or limitation; institute caps on the amounts of tort awards, limit attorney and expert witness fees; and require that injured parties file claims with governmental units before initiating court actions.

Legislators should, however, carefully consider the long term impact of legislative changes because legislative measures may also encourage government irresponsibility and provide landowners with no legal recourse when they suffer flood damages due to government activities.

11. How can governmental units legislatively reduce Constitutional challenges to regulations or reduce the amounts of awards for uncompensated “taking”? 

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State legislatures could legislatively reduce Constitutional challenges to flood regulations although the need for such legislation is questionable since courts have sustained very few Constitutional challenges to regulations. Legislatively dealing with Constitutional claims is also legally more difficult than dealing with tort claims because the adequacy of compensation (“just compensation”) is ultimately a Constitutional issue for the courts not legislative bodies. However, legislatures and Congress do have several options. They could cap the amounts and types of damages which are compensable in the event a court decides that a taking without payment of just compensation has occurred. They could adopt statutes of limitation or repose with short time frames and specify that the statutes begin to run with date of adoption of regulations. They could limit attorney’s fees. They could authorize an administrative agency to modify regulations in the event a court finds specific regulations or denial or conditioning of a permit to be a “taking”. These measures are discussed in greater length in the paper which follows.
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1. Why is flood-related liability a growing problem for governmental units?

In the last two decades courts have increasingly held governments liable under common law theories for their activities which increase flood hazards on adjacent private lands and/or cause injuries to the public while on government lands. Courts have also held governments liable for “residual” damage from flood control structures.

In addition, landowners have increasingly challenged the Constitutionality of land and waters regulations adopted by governmental units to reduce hazard losses as a “taking” of private property without payment of just compensation although only a few of these challenges have succeeded.

Despite government efforts to protect lives and reduce property losses, natural hazards continue to take a heavy toll in the U.S. and abroad. Hurricane Katrina in 2005 killed more than 1300. It caused damages which have been estimated to approach $200 billion dollars. The "Great Flood" along the Mississippi in 1993 and its tributaries caused damages estimated by the U.S. Geological Survey to be $15-20 billion dollars. Average annual damages in the 20th century increased about 2 ½ times in current dollars to nearly $6 billion/year. Average annual damages in the first decade of the 21st century were about $10 billion/year.

Loss of life has been reduced in the U.S. from hurricanes and flooding, but property losses continue to mount as private and public development occurs along our rivers and coasts in flood, erosion and other types of hazard areas.

Governments are increasingly held liable for several reasons which will be discussed in greater depth below. Included are:

--Damage-prone development continues to be built in floodplains although floodplain regulations have been adopted by communities for larger rivers and streams, coastal and estuarine areas, and the Great Lakes.

--Courts have expanded the common law rules pertaining to landowner (public and private) liability for flood damages such as adopting a rule of “reasonable use” rather than “common enemy” for surface waters.

--Advances in flood modeling facilitate proof of causation and damage.

--Courts have limited many of the defenses to suits such as modification or abrogation of a sovereign immunity and the act of God defense.

Successful liability suits based upon natural hazards have become expensive to governments. For example, in 2003 the California Court of Appeals upheld a damage award against the State of California for flood damages. The settlement total in this suit

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5 http://www.msnbc.msn.com/id/11281267/ns/us_news-katrina_the_long_road_backIt is to be noted that there is some disagreement with regard to the total dead and missing.


was approximately $464 million dollars. In this suit, 3,000 plaintiffs sued the state when heavy rains in 1986 caused a levee to collapse on the Yuba River. The levee had been constructed with uncompacted mining debris. The state had not constructed the levee but had assumed responsibility for the levee in 1953. The court held that “when a public entity operates a flood control system built by someone else, it accepts liability as if it had planned and built the system itself.”

Even larger amounts of money are at stake in the lawsuits filed by private landowners in Louisiana and the neighboring states of Florida, Alabama, and Mississippi after Hurricane Katrina struck the Gulf on August 29, 2005. Suits have been filed on behalf of an estimated 250,000 people seeking over $278 billion in damages from the federal government alone. Landowners damaged by Hurricane Katrina have sued insurance companies, businesses, local parishes, levee districts, the state of Louisiana, and the Federal government based upon a broad range of legal theories—insurance contract, negligence, pollution control laws, wetland destruction, and taking without payment of just compensation.

Most successful liability suits have involved situations in which governments or individuals have directly increased flood or drainage problems on private property adjacent to public lands or public works projects (e.g., roads, bridges) or through construction or operation of structural hazard reduction measures such as dams, levees, reservoirs or stormwater detention facilities.

Courts have often held governments liable for natural hazard related injuries caused by "unreasonable" government conduct which causes injury. This trend toward successful suits for unreasonable conduct causing damages (usually based upon a theory of negligence but sometimes upon riparian rights) is due, in part, to the widespread availability of flood maps and the foreseeability of flooding. Courts have increasingly held governmental units to the same standard of reasonable care as private individuals.

Natural hazard-related litigation is part of a larger body of litigation involving suits by one individual against another individual (or government body) for causing injuries or various types of damages to persons or real or personal property. Most liability litigation involves one private individual suing another rather than one individual versus a

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9 *Id.* at 1003.
governmental entity. These cases involve damages caused by one individual to another in automobile accidents, medical malpractice contexts, work-related accidents, and many other situations. Both natural hazard litigation and this broader body of litigation share most of the same theories of action and defenses.

Large damage awards have encouraged governments at all levels to seek ways of minimizing suits which will be discussed below. Some of these measures (such as adoption and implementation of “no adverse impact” standard) are consistent with responsible government decision-making which avoids increasing flood hazards on other, nongovernment lands. Other measures for reducing liability such as legislative adoption statutes of limitation with short time frames of two to five years for architectural or engineering negligence may reduce costs to government but provide limited recourse for private landowners when flood losses occur.

2. Why has the number of successful suits increased?

Reasons why governments are being held liable under various legal theories (trespass, nuisance, negligence, riparian rights, surface water reasonable use doctrine, and inverse condemnation) include:

--Landowners and governments are continuing to construct homes and other structures in flood hazard areas. Landowners often want to build as close to the water (lakes, streams, estuaries, the oceans) as possible even if this involves the potential for severe flood, wind and erosion damage. This is a particular problem for coastal and estuarine areas where landowners often underestimate the height and power of storm surge and waves. Public infrastructure such as roads, stormwater systems, dikes, levees, also continues to be constructed in hazard areas.

When flood and erosion damages occur, disgruntled landowners often sue anyone who might be held legally responsible.

--Foreseeability of harm is increasing. A "reasonable man" is responsible for injuries or damages which could be reasonably foreseen.\textsuperscript{12} To constitute negligence, the act must be one which a reasonably careful person would foresee as creating an appreciable risk of harm to others so 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. Most hazards are now to a greater or lesser extent “foreseeable” because of the broad availability of flood hazard maps including floodway and high risk coastal flood maps. Direct warning of a dangerous condition such as the report from a user of a public road that a bridge is washed out also provides foreseeability. Courts do not require that events be specifically predictable (e.g., date, place) to be "foreseeable". It is enough that the event could have been anticipated in a more general sense.

A number of courts have considered the foreseeability of hazard events with particular assigned reoccurrence intervals. For example, in *Barr v. Game, Fish and Parks*, the Colorado Court of Appeals rejected an "act of God" defense for flooding, erosion and silt deposition damage caused by construction of a dam with an adequate spillway by the Colorado Game, Fish and Parks Commission. The court noted that a "maximum probable storm, by definition, is both maximum and probable." The Court of Appeals agreed with the lower court which had concluded:

> (With modern meteorological techniques, a maximum probable storm is predictable and maximum probable flood is foreseeable. Thus being both predictable and foreseeable to the defendant in the design and construction of the dam, the defense of act of God is not available to them. In short, the flood which occurred in June of 1965 could not be classified as an act of God.

The court concluded that the dam should have been designed to meet the requirements of the maximum probable flood—about 200,000 cfs at this point of the stream.

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**The rules of law pertaining to common law liability have been expanded.** Courts and legislative bodies have expanded the basic rules of liability to make landowners and governmental units increasingly responsible for actions which result in or increase damages to others. For example, the traditional "common enemy" doctrine with regard to diffused surface waters 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. In general, any activity which substantially increases the amount, velocity or depth of surface waters on other lands with resulting damage may be held by courts to be unreasonable and the basis for a liability suit.

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**Hazards have become more 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 mapping of hazard areas has taken place. With improved predictive capability and the mapping of areas, even relatively infrequent hazard events are now (to a greater or lesser extent) "foreseeable" and failing to take such hazards into account may constitute negligence or invoke strict liability. This includes the “residual risk” from levees, dams, and other flood control structures.

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**The "Act of God" defense has been limited.** "Act of God" was, at one time a common, successful defense to losses from flooding and erosion and common law suits

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14 *Id.* at 344.
15 *Id.*
17 See, e.g., *Barr v. Game, Fish, and Parks Comm’n*, 497 P.2d 340 (Colo. 1972.)
based upon such losses. But, at common law, "acts of God" must be not only very large hazard events but must be "unforeseeable."\footnote{See id. at 343.} Improved predictive capability and the development of hazard maps have limited the use of this defense.

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**Advances have been made in the techniques available for reducing hazard losses.** Advances (e.g., computerized warning systems) create an increasingly high standard of care for reasonable conduct. As technology advances, the techniques and approaches which must be applied by engineers, architects and others for "reasonable" conduct", judged by the practices applied by their profession in their region, also advance. Private landowners, architects, engineers and governments are negligent if they fail to exercise "reasonable care". Architects and engineers must demonstrate a level of knowledge and expertise equal to that of architects and engineers in their region.\footnote{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 (1980).}

Widespread dissemination of information concerning techniques for reducing flood and erosion losses through magazines, technical journals, and reports, has broadened the concept of "region" so that a broad if not national standard of professional reasonableness now exists.

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**Advances have been made in natural hazard modeling techniques available to establish causation, the reasonableness of conduct, and damages.** Fifty years ago, it was very difficult for a landowner to prove that a particular activity on adjacent land 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 modeling techniques facilitate proof of causation and allocation of fault.\footnote{See, e.g., Schneider v. State, 789 N.W.2d 138, 145 (Iowa 2010) in which the court observed: "Computer models... illustrated that the bypass structures increased the depth of the 1999 flood waters by as much as three feet in certain areas of the city and caused flooding in a part of the city that would not have flooded but for the construction of the bypass. The models also produced evidence tending to prove the bridge and related structures would have caused flood waters in a 100-year flood event to rise higher in some parts of Denver upstream from the bridge than would have been the case had the bridge and related structures not been placed in the floodway."; Lea Co. v. N. C. Bd. of Transp., 304 S.E.2d 164 (N.C. 1983).}

Modeling techniques may be used to establish relative degree of risk including flood frequency, flood heights, and identification of floodway areas.\footnote{See generally, Schneider v. State, 789 N.W.2d 138, 145 (Iowa 2010).}

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**The standard for “reasonable” conduct is becoming a national standard.** The development and widespread distribution of engineering handbooks and analytical tools by FEMA, the Army Corps of Engineers, engineering societies, and other agencies and groups create are creating a national standard for reasonableness. See, for example, Reidling v. City of Gainesville,\footnote{634 S.E.2d 862 (Ga. 2006).} in which the court held that the Department of Transportation’s plans for a parkway were exempt from sovereign immunity protection and consequentially the DOT could be held liable for a nuisance due to placement of fill and flooding. There was evidence that the plan or design for placement of fill “was not
prepared in substantial compliance with generally accepted engineering or design standards at the time such plan was prepared."\textsuperscript{23} Evidence of the usual and customary conduct of others under the circumstances is relevant and admissible.\textsuperscript{24} However, general custom is not conclusive\textsuperscript{25} and courts have found the practices of an entire industry to be wanting.\textsuperscript{26}

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\textbf{A special relationship has, in some instances, been developed.} In some instances, a special relationship exists between an injured individual and a governmental unit that creates a duty of care. For example, in \textit{Kunz v. Utah Power and Light Company},\textsuperscript{27} a Federal Court of Appeals held that the Utah Power and Light Company which operated a flood storage facility at a lake had a special relationship with downstream landowners and a duty to provide flood control because the Company 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, potentially, negligence.

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\textbf{Statutes, ordinances, or other regulations applying to the area or activity establish an increased standard of care.} More than 20,800 communities have adopted floodplain regulations to qualify for the National Flood Insurance Program. Many have adopted standards which exceed the minimum standards of the Program. Negligence may “arise from breach of a common law duty or one imposed by statute or regulation since the conduct of a reasonable man may be prescribed by legislative enactment.”\textsuperscript{28} In general, violation of a statute or ordinance may create, at a minimum, a presumption of negligence or evidence of negligence.\textsuperscript{29}

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.”\textsuperscript{30}

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. See for example, \textit{Corley v. Gene Allen Air Service, Inc.},\textsuperscript{31} in which the court observed that “(u)nreasonable conduct is not an excuse when one merely complies with minimum regulatory

\textsuperscript{23} Id. at 866, quoting \textit{Dep’t of Transp. v. Dupree}, 256 Ga.App. 668 (Ga.App. 2002).
\textsuperscript{24} See The Law of Torts p. 193.
\textsuperscript{25} See, e.g., \textit{The T.J. Hooper}, 60 F.2d 737 (C.A.2 1932).
\textsuperscript{26} Id. The court in this case found that the general practice of failing to equip tug boats with operational radios rendered them unseaworthy.
\textsuperscript{27} 526 F.2d 500 (9th Cir., 1975).
\textsuperscript{31} 425 So. 2d 781, 784 (La., 1983).
requirements.” 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, 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 due to the project. In Schneider v. State, a court held that the state of Iowa was liable for highway project which encroached on the floodway and caused damages in violation of an Iowa statute. The court held that “discretionary” immunity under tort claim act did not apply because of the clear statutory and regulatory provisions prohibiting fill or other obstructions in the floodway.

3. What units of government are most susceptible to flood-related damage claims?

All levels of government—the federal government, states, and local governments—may be sued for negligence, nuisance, breach of contract, or the ”taking” of private property without payment of just compensation although vulnerability to suit varies.

**Local government liability.** As a practical matter, local governments are most vulnerable to liability suits based upon government increasing or negligently addressing natural hazards because they are, in many contexts, the units of government undertaking the activities which result in increased natural hazards or “takings” of private property and they are the least protected by defenses such as sovereign immunity and statutory exemptions contained in tort claim acts. It is at the local level that much of the active management of hazardous lands occurs (e.g., 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 fire fighting, police, snow removal, garbage pickup and disposal, emergency evacuation, and ambulance services are provided. Finally, most land use regulation occurs at the local level and ”regulatory takings” claims challenging such regulations are, therefore, most common at this level.

**State liability.** States may also be liable in some instances for hazard losses occurring on state lands, hazard losses due to state highway projects, operation of state buildings, and for the actions of state agency personnel such as state police and emergency

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32 257 N.W.2d 739 (Iowa., 1977).
33 789 N.W.2d 138 (Iowa 2010).
34 See, e.g., ClarkCounty v. Powers, 611 P.2d 1072 (Nev. 1980) (County is liable for increased flood damage caused by county-approved subdivision.); Myotte v. Village of Mayfield, 375 N.E.2d 816 (Ohio App., 1977) (Village is liable for flood damage caused by issuance of a building permit for industrial park.)
35 See, e.g., Monsoldo v. State, 898 A.2d 1018 (N.J. 2006) (State floodway regulations may be an unconstitutional taking). Lucas v. South Carolina Coastal Council, 505 U.S. 1003 (, 1992) (State beach regulations may be a taking.)Pumpelly v. Green Bay Co., 80 U.S. 166 (1871) (State is liable for taking of private property due to flooding of private lands by state reservoir.); Rodrigues v. State, 472 P.2d 509 (Haw. 1970) (State is liable for damages due to inadequate maintenance of drainage culverts which were blocked by sand bars and tidal action.); Schneider v. State, 789 N.W.2d 138 (Iowa 2010). State was liable for highway project which increased flood heights. Discretionary immunity under tort claim act did not apply.
management operations. Some states also directly regulate activities in hazard areas such as floodways and coastal erosion areas although the state regulatory role is more restricted than the local one. States may be sued for negligence, trespass, takings, and on contract theories. States may also be liable for unconstitutional “taking” without payment of just compensation when they tightly regulate areas.\textsuperscript{36} States are less vulnerable than local governments due to the smaller number of state activities undertaken with liability potential (e.g., limited state land use controls), continued sovereign immunity, and other defenses (e.g., 11th Amendment defense to Section 1983 actions). But, as described above, there are exceptions. As discussed above, the State of California has been held liable for massive flood damages in a class action suit dealing with state-owned levees.\textsuperscript{37} The settlement in this suit was approximately $464 million dollars.

**Federal liability**\textsuperscript{38} for flood hazard-related losses arises in certain contexts such as federal construction of reservoirs for recreation and water supply. Liability may also result from filling or grading of federal lands thereby increasing flooding or erosion on adjacent lands. Much of the land in the West is in federal ownership. Floods, erosion, and avalanche hazards are common. Federal agency activities may increase hazards on adjacent private lands and public users of federal land may be injured or killed by natural hazards. The federal government may be sued, under the Federal Tort Claims act of 1946, for some types of negligence. Under this statute, the Federal government may be held liable for “nondiscretionary” negligence including negligence in the design or operation of certain natural hazard loss reduction measures such as erosion control works (e.g., groins). However, Congress has specifically exempted federal agencies for liability for negligence with regard to construction of flood control measures by Section 702c of the Flood Control Act of 1928.\textsuperscript{39} This is an extremely important statutory exemption to liability. Section 702c exempts the federal government for liability for "negligence" associated with the design, operation, and maintenance of any federal flood control facility. It provides that "(n)o liability of any kind shall attach to or rest upon the United States for any damage from or by floods or flood waters at any place."\textsuperscript{40}

This exemption has been broadly applied except where the federal government constructs or operates dams or other structures with the primary goal of irrigation, recreation or navigation rather than flood control.\textsuperscript{41} Landowners damaged by the collapse of levees in Hurricane Katrina are arguing that at least a portion of the damage should be

\textsuperscript{36}Monsoldo v. State, 898 A.2d 1018 (N.J. 2006) (State floodway regulations may be an unconstitutional taking.)

\textsuperscript{37}Paterno vs. State of California, 113 Cal.App.4th 998 (Calif., 2003).


\textsuperscript{40}Id.

compensated by the federal government because the levees were constructed as part of a navigation project.\textsuperscript{42}

Federal agencies, states, and local governments may also be sued for uncompensated taking of private property under the 5th Amendment under some circumstances. For example, federal agencies may be held liable for flooding or saturating private land by constructing reservoirs.\textsuperscript{43}

Finally, the federal government, states and local governments may be held liable for breaches of contract in leasing or selling hazard prone lands and structures and to contractors constructing roads or buildings damaged by natural hazards during the construction (depending upon the terms of the contract).

4. Is government liability consistent with sound public floodplain management policy?

On the one hand, the threat of law suits encourages floodplain decision-makers to avoid increasing flood hazards on public and private lands. The threat encourages governments to carefully evaluate building permit applications and proposed subdivision plats. It encourages governments to take into account residual risk in constructing dikes and dams and levees. It encourages governments to carefully construct, maintain and operate flood control works, flood warning systems, other flood loss reduction measures.

The judicial trend toward holding governmental units and private landowners responsible for natural hazard losses caused by their actions (including losses due to residual flood risk from failure of structures such as levees) is consistent with the overall goal of responsible government decision-making for flood hazard areas stated by the Federal Task Force on Flood Control. This Task Force, in its report to Congress, recommended in 1965 that "\textbf{those who occupy the floodplain should be responsible for the results of their own actions.}" See Task Force on Federal Flood Control Policy, A Unified National Program for Managing Flood Losses, H.R. Doc. No. 465, p.3, 89th Congress 2d Sess. (1966). The recommendations of this Task Force have provided the conceptual basis for federal, state/tribal, and local floodplain management for the last four decades. Efforts have been made at all levels of government to shift more of the costs of occupancy of hazard areas to the private and public landowners. For example, increased cost-sharing requirements for federal flood loss reduction projects and reduced federal spending for disaster assistance support such a changed philosophy. So does providing National Flood Insurance at actuarial rates.

\textsuperscript{42} See note 37, Katrina Canal Breaches, supra.

\textsuperscript{43} See, e.g., U.S. v. Kansas City Life Ins. Co., 339 U.S. 799 (1950) (Federal government is liable for maintaining the Mississippi River at an artificially high level which raised the water table, blocking drainage of properties and causing destruction of the agricultural value of lands.) See also footnote 3 of Vaizburd v U.S., 384 F.3d 1278 (C.A. Fed. 2004) citing many cases.
While damage awards like those for the Paterno case have in a few instances been great, there is little indication that such suits are, overall, bankrupting local governments or seriously impairing government operations.

On the other hand, the threat of law suits may discourage governments from undertaking flood loss reduction measures such as establishment of flood warning systems. It may discourage governments from allowing campers and others to use floodplains in public ownership. It may discourage governments from mapping floodplains with the fear that once they know the extent and severity of flood hazards this knowledge will be turned against them.

Courts have, as a matter of public policy refused to hold governments responsible for flood losses in some instances. See, for example, Butler v. Advanced Drainage, in which the Wisconsin Supreme court held as a matter of public policy that the City of Shell Lake was not liable for gradually rising waters in a lake and resulting flood damage. The court reasoned that imposing liability “would be to enter a field with no sensible or just stopping point.” The court concluded

The natural hazard, flooding caused by the rising water level of the Lake, has been know for decades...The plaintiff in this case were aware of the flooding hazard surrounding the Lake; yet they continued to place themselves in harm’s way, often by building dwellings below the 100-year floodplain for the Lake. When the potential for damage from the Lake’s flooding was known and of an ongoing nature, should an unsatisfactory abatement effort serve as the source of recoverable damages? …. (I)t is probable that absent any act by the defendants, the plaintiffs, nevertheless, would have suffered damage.

This is a natural hazard that was amplified by development on the Lake. Should every failed effort at controlling the flooding bring a lawsuit? For example, if a retaining wall had been constructed in the hope of holding off rising water and the property flooded nevertheless, should that contractor also be held responsible for the damage to the plaintiffs or to neighboring resident’s properties because the efforts were unsuccessful?

(W)e conclude that to open the door for this type of claim would be to enter a field with no just or sensible stopping point. Therefore, we conclude that the defendants may not be held liable for their unsatisfactory abatement efforts and the dismissal of the plaintiff’s negligence claim was proper.

There is much concern by government staff that they might be held personally liable for increasing flood hazards, failing to prevent flood losses, or tightly regulating flood hazard

44 717 N.W.2d 760 (Wis. 2006).
45 Id. at 769, quoting Coffey v. City of Milwaukee, 74 Wis.2d 526, 541, (Wis. 1976).
46 Id. at 768, 769.
areas. And, this has led to proposals to legislatively limit government liability for issuing floodplain permits which increase flood hazards on other lands, for failing to prevent flood damages, for failing to enforce floodplain regulations, and for certifying levees. 47 These measures will be discussed later in this paper.

A middle ground position concerning government liability may best serve the dual goals of responsible decision-making and reduced law suits. Continued liability is consistent with sound public policy where it encourages governments to consider flood risks including residual risks and to avoid “externalities” in their decision-making. It makes particular sense where governments can reduce the risk of liability through relatively inexpensive administrative measures.

But there may also be a need for limits. Legislative limitations upon common law liability may be appropriate in some circumstances. For example, states could in their emergency management statutes specifically exempt “vertical evacuation” and emergency evacuation from liability. They also could also in these statutes explicitly limit government liability for flood warning systems except for gross negligence. They could, in their tort claim acts or zoning, building code statutes, limit government liability for issuance of floodplain permits under specified conditions.

5. To what extent are governmental officials liable as individuals?

Government officials such as zoning administrators, state and local floodplain regulators, planners, city engineers, and local legislators worry that they will be held liable as individuals for adoption of highly restrictive floodplain regulations, the denial of permits for floodplain activities, the issuance of permits and subsequent flooding of other property, and for government activities such as the design, construction, and maintenance of dams, levees, stormwater systems, and drainage channels.

Courts have quite often held states and local governments liable for increasing flood damages on private lands under common law or Constitutional theories. However, government officials have been very rarely been held personally liable. Despite the rarity of successful suits, defending oneself against a suit can be time-consuming and expensive. Suits can have a chilling effect on regulations if governmental units decide not to enforce regulations out of fear they will be sued.

Courts and state legislators have through tort or Constitutional case law or through state tort claim acts, provided various classes of government employees with partial or complete immunity as individuals although local governmental units may not have immunity. 48 These immunities have been applied not only to tort actions but most “takings” claims including taking and due process suits based upon Section 1983 of the Civil Rights Act.

47 See note 1, supra.
Courts have held that governmental employees at all levels of government acting in good faith and within the scope of their jobs are not personally liable. This immunity is based upon public policy considerations. There are, however, exceptions to the rule which are slowly being broadened. For a case addressing qualified government liability under state law see *City of Birmingham v. Brown*, in which the court held that a city and an employee of city were not liable for approving a stormwater system because of state tort claim act immunity for city and “discretionary function” immunity for employee. Quoting an earlier case (*Ex parte Cranman*), the court stated:

“A State agent shall be immune from civil liability in his or her personal capacity when the conduct made the basis of the claim against the agent is based upon the agents

1. formulating plans, policies, or designs;
2. exercising his or her judgment in the administration of a department or agency of government…
3. discharging duties imposed on a department or agency by statute, rule, or regulation, insofar as the statute, rule, or regulation prescribes the manner for performing the duties and the State agent performs the duties in that manner.…” (emphasis added by court, some quotation marks omitted.)

Federal employees have broad immunity from common law tort liability for discretionary acts committed within the scope of their duties. See, for example, *Friedman v. Young* in which a federal district court observed:

Federal employees have long been entitled to absolute immunity from common law tort liability for acts committed within the scope of their official duties, as long as the acts are discretionary in nature….In order for absolute immunity from common law tort liability to attach, two factors must be met. First the alleged tortuous acts must fall within the federal employee’s scope of authority, or the outer perimeter of the employees scope of authority, or the outer perimeter of employees line of duty…The second factor that must be established is that the federal employee exercised judgment or discretion (case citations omitted)”

However, employee immunity at any level of government does not extend to ultra vires acts (acts outside of the scope of the employee’s duties).

In general, governmental officials are also immune from personal liability based on Constitutional claims although there are exceptions under the Civil Rights Act of 1871,

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50 See, for example, *Cords v. Anderson*, note 49 supra in which a Wisconsin court held a park manager liable for negligence in implementing a “ministerial” duty for failing to place warning signs on cliff under common law and statutory law in effect at time of injury. The Wisconsin legislature later amended state recreation use statute to reduce potential liability of state employees in situations like this.
51 969 So.2d 910, 915 (Ala 2007).
52 792 So.2d 392, 405 (Ala. 2000).
codified, in part, at 42 U.S.C. Sec. 1983. Section 1983 has become an increasingly important basis for suits against local government and government employees based upon Constitutional violations although there have been few successful suits dealing with natural hazards.

Section 1983 provides at 42 U.S.C. Sec. 1983:

“Every person who, under color of any statute, ordinance, regulation, custom, or usage, of any State or Territory, subjects, or causes to be subjected, any citizen of the United States or other person within the jurisdiction thereof to the deprivation of any rights, privileges, or immunities secured by the Constitution and laws, shall be liable to the party injured in any action at law, suit in equity, or other proper proceeding for redress….”

Some landowners have filed Section 1983 suits against local governments and local government officials claiming a taking private property where government has increased flood, storm water, landslide and other types of natural hazard damages on private lands. They have also challenged land use regulations on due process on due process and equal protection grounds in several Section 1983 suits. See, e.g., County Concrete Corp., Town of Roxbury 56. With some very limited exceptions, both types of suits have failed in hazard contexts.57

The essence of a 1983 damage suit is a claim that federal civil rights have been denied due to "state action" under the color of law, there is an inadequate state remedy, and damages should be paid for such denial of civil rights. Violation of state or local law alone does not give rise to a Section 1983 action which only applies to violations of federal rights. The plaintiff must prove both "(1) deprivation of a federal Constitutional or legal right...which (2) resulted from the sort of abuse of government power that is necessary to raise an ordinary tort by a government agent to the stature of a violation of the constitution." Boihem v. Drainage & Sewerage Dept. of Jefferson Parish.58 A Section 1983 suit may not be filed against a federal agency although federal employee may be sued directly in some limited circumstances. Similarly, an unconsenting state may not be sued for violation of a federal right due to the provisions of the 11th Amendment. See Welch v. State Dept of Highways.59 A Section 1983 suit can be filed in certain circumstances against state officials acting under the color of state law but acting as

56 442 F.3d 159 (3rd Cir., 2006).
57 See, e.g., Wozniak v. County of Du Page, 569 F.Supp. 813 (N.D. Ill.1983) in which the court held that property owners might have a valid claim under Section 1983 that the grounds for denial of a permit for development in a flood prone area was a sham. However, the case was ultimately dismissed for lack of proof. In another case, Oswalt v. Ramsey County, 371 N.W.2d 241 (Minn. App. 1985) a Minnesota court of appeals held that city could be held liable for condemning a flood prone building as hazardous without complying with the requirements of the state’s safe building law and, instead, effectively applying a floodplain ordinance.
individuals if the award would not come from the state treasury. In contrast, a suit can be filed directly against a local government while local government officials have a “qualified” immunity.

Section 1983 suits involving local governments were rare until the U.S. Supreme Court in 1978 in Monell v. Department of Social Services of the City of New York held that local units of government are "persons" under the act and subject to lawsuits for depriving private individuals of federal rights. “Local governing bodies…can be sued directly under 1983 for monetary, declaratory, or injunctive relief where…the action that is alleged to be unconstitutional implements or executes a policy statement, ordinance, regulation, or decision officially adopted and promulgated by that body’s officers.” Id. at 690. A local government entity is responsible under 1983 “only when execution of a government’s policy or custom…inflicts the injury….” Id. at 694. The court in Hillard v. Walker’s Party Store, Inc. observed that “(a) plaintiff can establish a municipal policy or custom in two ways: (1) a decision-maker with final authority issues an official proclamation on the subject or (2) a custom is established through a course of conduct that is so permanent and well settled as to virtually constitute law.”

Section 1983 does not create any additional or new civil rights but provides remedies for violation of existing rights (e.g., uncompensated “taking”, due process violations). Not all violations of existing rights are, however, actionable pursuant to Section 1983. An ordinary tort such as negligence is not actionable. Only intentional misconduct, gross negligence, or gross indifference will sufficiently deny “civil rights” to serve as the basis for a Section 1983 action. See generally Berquist v. County of Cochise; Spell v. McDanie.

Courts have held in a number of cases that natural hazard-related damages may be actionable in tort but do not give rise to a 1983 “ takings”. See, for example, York v. City of Cedartown, (Court rejected claim that negligent municipal design and operation of street and drainage system so as to cause a nuisance were sufficient to raise an ordinary tort to the status of a Constitutional violation.); Boihem v. Drainage & Sewerage Dept. of Jefferson Par., (Court held that drainage and flooding damages of landowners next to drainage canal due, in part, to actions of parish did not rise to the level of an unconstitutional taking or deprival of federal Constitutionally protected rights.); City of Watauga v. Tauton (Court held that there must be more than negligence in maintenance of a drainage ditch to recover for a due process violation under Section 1983).

Restrictive regulation of private lands may also, in certain circumstances, be unconstitutional but not actionable in federal court as a Section 1983 violation if adequate

63 806 F.2d 1364 (9th Cir., 1986).
64 824 F.2d 1380 (4th Cir., 1987).
65 648 F.2d 231 (5th Cir., 1981).
67 752 S.W.2d 199 (Tex., 1988).
state remedies exist under state law. Landowners claiming the floodplain regulations “take” their property without payment of just compensation must ordinarily first exhaust both state and local administrative and judicial remedies before filing a taking claim in federal court.

In the context of Section 1983 suits, absolute immunity for Constitutional violations has been provided to the following: state supreme court justices, see e.g., Supreme Court of Virginia v. Consumers Union; state lower court judges, see e.g., Stump v. Sparkman; state legislators operating in a legislative capacity, see e.g., Tenney v. Brandhove; regional agency legislative members acting in a legislative capacity, see e.g., Lake County Estates, Inc. v. Tahoe Regional Planning Agency; state prosecutors, see e.g., Imbler v. Pachtman; and witnesses at a trial, see e.g., Briscoe v. Lahue. However, some courts have found limited immunity, particularly where local legislatures are acting in an administrative capacity. See, e.g., Epstein v. Township of Whitehall.

Other governmental officials such as planners, building inspectors, engineers, and architects also have only qualified immunity from Section 1983 suits. Other governmental officials have, at least qualified immunity, depending upon their functions and actions. See, e.g., Louisiana Farms v. Louisiana Department of Wildlife and Fisheries. An official may be individually liable for damages if he or she flagrantly violates a well-established Constitutional right. See e.g., Friedman v. Young; Bivens v. Six Unknown Agents of the Federal Bureau of Narcotics.

For a discussion of qualified immunity in a Section 1983 context, see Dunedin Development Co. v. City of Dunedin, Florida in which the federal district court in this Section 1983 case dismissed a suit against a floodplain administrator who had revoked an occupancy permit for a high hazard zone due to occupancy of the first floor. The court held that the administrator had qualified immunity from suit as an individual and that the landowner had failed to show that the administrator had violated a “clearly established” due process right. The court observed that (Id. at 11):

A government official is immune from suit in his or her individual capacity unless the conduct violated clearly established constitutional or federal rights of which a reasonable person would have known...Qualified immunity represents a balance

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69 Id.
70 446 U.S. 719 (S.Ct., 1980).
72 341 U.S. 367 (S.Ct., 1951).
75 460 U.S. 325 (S.Ct., 1983).
77 685 So.2d 1086 (La., 1997)
79 403 U.S. 388 (S.Ct., 1971).
80 (M.D. Fla. 11-10-2009).
between the need for a remedy to protect citizen’s rights and the need for government officials to perform their duties without the fear of constant, baseless litigation.

Qualified immunity is not absolute immunity. By its definition qualified immunity contemplates instances where government officials are not protected…Qualified immunity gives ample room for mistaken judgments but does not protect the “plainly incompetent or those who knowingly violate the law.” (Cases, citations, and some quotation marks omitted.)

As indicated above, Section 1983 suits have had limited success in both regulatory and nonregulatory natural hazard contexts. See, for example:

--Zisk v City of Roseville, (Court held that members of city legislative body acting in good faith are immune from a Section 1983 "taking" suit for adopting a Park and Streambed Element to its General Plan, recommending acquisition of selected floodplain areas, adopting a floodway and flood fringe regulatory ordinance, and later acquiring area.)

--Creative Environments, Inc. v. Estabrook, (Federal court held that municipal employees are entitled to qualified immunity pursuant to Section 1983 action for rejection of subdivision plan.)

--York v. Cedartown, (Federal court held that city was not liable under Section 1983 for negligent design of street and drainage system which diminished the value of plaintiff’s property. Court held that damage did not rise to the level of an uncompensated taking.)

--Lee v. Town of Estes Park, Colorado, (Federal court of appeals held that police officers and the city of Estes Park were not liable under Section 1983 for failure to adequately train police officer for actions after Lawn Lake flood.)

--Marino v. Goss, (State court held that members of town board of adjustment could not be held liable for damages for issuance or denial of building permit as long as they acted in good faith.)

84 648 F.2d 231 (5th Cir. 1981).
85 820 F.2d 1112 (10th Cir., 1987).
86 418 A.2d 1271 (N.H., 1980).
--Ravalese v. Town of East Hartford,\textsuperscript{87} (State court held that landowner could not recover for a “taking” by town board members under Section 1983 for use of its own flood maps rather than FEMA’s map.)

--Pigott v. City of Wilmington,\textsuperscript{88} (State court held that owners of greenhouse could not recover from building inspector for negligence in interpretation of building codes which resulted in demolition of their greenhouses where there was no evidence his action or failure to act was “corrupt or malicious” or “beyond the scope of his duties.”.)

--Baucom's Nursery Co. v. Mecklenburg County,\textsuperscript{89} disc. rev. denied.\textsuperscript{90} (State court held that county and county commissioners were exempt from liability for actual or punitive damages as a result of enactment and enforcement of zoning ordinances.)

--Wozniak v. County of DuPage\textsuperscript{91} (Federal court held that denial of a permit for development in a floodplain was barred by res judicata and therefore not subject to a possible Section 1983 claim.)

--Halverson v. Skagit County,\textsuperscript{92} (Federal court held that no Section 1983 claim existed for denial of due process existed for maintaining inadequate flood protection plan but there was possible liability for operation of a diking system.)

--New Holland Village Condominium v. Destaso Enterprises,\textsuperscript{93} (Federal court held that town, county, and state Department of Environmental Conservation could not be held liable for taking or negligence under Section 1983 due to collapse of a dam during Hurricane Floyd. The court held that a claim for mere “negligence” was not a Constitutional claim and therefore a suit could not be brought under Section 1983. The court also held that no takings claim was stated, that if it a taking claim were stated it was unripe because there was a remedy in state courts, and that the state enjoyed sovereign immunity.)

--Levin v. Upper Makefield Township,\textsuperscript{94} (Federal court upheld town’s denial of a variance to develop in conservation and floodplain district and dismissed due process and civil conspiracy claims pursuant to Section 1983 against the township, board of supervisors, zoning hearing board and others based in part on “safety” concerns.)

--Metzger v. Village of Cedar Creek,\textsuperscript{95} (Federal court held that Section 1983 taking claim against private landowner and village for floodplain area were not ripe due to failure to exhaust state remedies.)

\textsuperscript{87} 608 F. Supp. 575 (D. Conn. 1985).
\textsuperscript{88} 273 S.E.2d 752 (N.C., 1981).
\textsuperscript{89} 366 S.E.2d 558 (N.C., 1988).
\textsuperscript{90} 371 S.E.2d 274 (N.C., 1988).
\textsuperscript{91} 845 F.2d 677 (7th Circuit, 1988).
\textsuperscript{92} 42 F.3d 1257 (9th Cir., 1994).
\textsuperscript{93} 139 F.Supp.2d. 499 (S.D.N.Y., 2001).
\textsuperscript{95} 370 F.3d 822 (Neb. 2003).
- *Ahern v. Fuss & O’Neill, Inc.*\(^{96}\) (State court held that developer could not recover under Section 1983 for adoption of a revised floodplain map where there was a mistake in an original map because the town’s adoption of a revised map was required by FEMA and was not the town’s own policy decision.)

- *Fred’s Modern Contracting, Inc. v. Horsham Township*,\(^{97}\) (Federal court rejected landowner’s Section 1983 claims of procedural and substantive due process and common law conspiracy for failing to issue permits for development in the floodplain.)

- *WAWA, Inc. v. Government of New Castle County Delaware*,\(^{98}\) (Federal court rejected a Section 1983 equal protection challenge when government prohibited new petroleum storage tanks in the Water Resource Protection Areas including floodplains.)

- *Neifert v. Department of Environment*,\(^{99}\) (State court denied equal protection and takings claims against officials denying permits under Section 1983 where Department denied permits for septic tanks and this rendered lots undevelopable. Court held that “nuisance exception” recognized by the Supreme Court in Lucas applied.)

- *Tilton v. Reclamation District*,\(^{100}\) (State court held that reclamation district was not subject to Section 1983 suit for taking for failure to adequately maintain or operate levee to protect property from flooding.)

- *DDA Family Limited Partnership v. City of MOAB*\(^{101}\) (Federal court upheld city floodplain regulations against Section 1983 Constitutional challenge. The court more specifically rejected a procedural due process claim, a substantive due process claim, an equal protection claim, and a claim pursuant to 28 U.S.C. s. 2201. The court observed that “this is a classic case for proving the rule that “(f)ederal courts should be reluctant to interfere with zoning disputes which are local concerns.”

- *Golden Gate Water Ski v. Contra Costa County*,\(^{102}\) (Federal court in this Section 1983 case upheld city regulations designating 5 acre island as open space in county plan designed to protect critical marsh and safety considerations against taking and due process claims. The court rejected Section 1983 due process and taking claims. The court also rejected estoppel and laches claims. The court held that structures not constructed consistent with regulations were a nuisance.)

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\(^{98}\) 391 F.Supp.2d 291 (Del., 2005).

\(^{99}\) 910 A.2d 1100 (Md. 2006).

\(^{100}\) 48 Cal. Rptr.3d 366 (Cal., 2006).

\(^{101}\) 2006 WL 1409124 (D.C. Utah, 2006).

--Sullivan v. Monroe County, Illinois\textsuperscript{103} (Federal court held that plaintiff did not have standing to sue pursuant to Section 1983 for a floodplain variance due to inadequate interest in property.)

--Dunedin Development Co. v. City of Dunedin, Florida\textsuperscript{104} (Federal court in this Section 1983 case held that floodplain administrator had qualified immunity from a due process suit as an individual when he denied a permit in a high hazard zone.)

A 1983 suit may be brought for damages due to denial of procedural or substantive due process as well as an uncompensated “taking” although few courts have allowed such damages in land use control cases. Courts have specifically rejected Section 1983 claims for denial of due process or equal protection in a number of hazard cases. See Golden Gate, DDA, and WAWA cases above. See also City of Watauga v. Tayton\textsuperscript{105} (Negligence of city in maintaining drainage way was not an adequate basis for a 1983 due process claim.); Terrace Knolls v. Dalton, Dalton, Little & Newport\textsuperscript{106} (Regulating use of land subject to flooding is valid and does not constitute a denial of substantive due process although factual base may be inadequate.)

Individuals injured by government emergency evacuations or other flood hazard-related actions such as razing badly damaged structures may argue that injuries have been the result of improper training of governmental officials. The U.S. Supreme Court has recognized inadequate police training as the basis for Section 1983 civil rights liability where it amounts to “deliberate indifference” to Constitutional rights. See generally Canton v. Harris\textsuperscript{107} in which the Court held that inadequacy of training may serve as the basis for 1983 municipal liability. Almost all cases involving allegations of inadequate training have involved police actions including alleged false arrests, false imprisonment, malicious prosecution, and assault and battery. They have involved egregious situations and not mistakes, lack of expertise, or lack of overall competence.

For this reason, lack of training has apparently not succeeded as the ground for liability in any natural hazard suit. See, e.g., Lee v. Town of Estes Park, Colo.,\textsuperscript{108} in which the court of appeals held that the city of Estes Park was not liable under Section 1983 for failure to adequately train police officer for actions after Lawn Lake flood. Nevertheless training should be a matter of some concern to government officials in both Section 1983 and, state law negligence and other common law contexts given the increasingly technical nature of hazard prediction, mapping, evacuation and other mitigation measures and the need for staff to be adequately trained if they are to act reasonably in natural hazard contexts.

\textsuperscript{103} (S.D. Ill. 4-10-2008).
\textsuperscript{104} (M.D. Fla. 11-10-2009).
\textsuperscript{105} 752 S.W.2d 199 (Tex., 1988).
\textsuperscript{106} 571 F. Supp. 1086 (N.D. Ohio, 1983).
\textsuperscript{107} 489 U.S. 378 (S.Ct., 1989).
\textsuperscript{108} 820 F.2d 1112 (10th Cir., 1987).
6. Does the threat of common law liability increase with degree of flood risk?

At common law, courts have generally held that landowners and governments have no affirmative duty to remedy naturally occurring hazards however severe as long as they do not increase such hazards. This includes no duty to adopt regulations or to construct hazard reduction structures such as dams.

However, courts have frequently held governments liable when they undertake activities in flood areas and the activities increase flooding and damages on other lands.

Flood hazards in the United States vary greatly from infrequent basement flooding in upland areas to frequent and deep flooding (20 or more feet in depth) in the floodplains of high gradient mountain streams. They include flood risks which are both within and which exceed the design criteria of dams, levees, sea walls, stormwater systems and other flood reduction measures. Levees and other flood control structures are usually designed to provide protection to specific frequency of flooding (e.g. a 100-500 year flood). When the design frequency elevation is exceeded flood control structures are typically overtopped. As in the case of Hurricane Katrina, catastrophic losses result from what are often viewed as “residual” risks.

Residual risks pose a particularly serious challenge to floodplain managers. Landowners and the general public do not understand that the flood protection provided by structures is limited. Consequently, when they are damaged by flooding they often sue under a number of legal theories including (principal) strict liability and negligence:

Strict Liability

Where waters are artificially impounded, courts have often held that governmental units may be "strictly" or “absolutely” liable for damages which result from the intentional or accidental discharge of these waters. Unlike negligence which requires a showing of

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109 See, e.g., *Burg v. The City of Seattle*, 24 P.3d 1098 (Wn., 2001), review denied 145 Wn.2d 1011 (Wn.2d 2001) (City of Seattle was not liable under tort or taking theories for landslides where the city did not cause or increase naturally occurring landslides.); *Goldstein v. Monroe County*, 432 N.Y.S.2d 966 (N.Y., 1980) (Municipal corporation is not liable for failing to restrain waters between banks of creek or keeping channel free of obstructions it did not cause.); *Vanguard Tours, Inc. v. Town of Yorktown*, 442 N.Y.S.2d 19 (N.Y., 1981) (Municipality is not liable for its failure to install a drainage system which adequately disposes of surface waters. But, if it does install a system it must exercise ordinary care in maintaining it.).

110 See e.g., *Allain-Lebreton, Co. v. Dept. of Army*, etc., 670 F.2d 43 (5th Cir., 1982) (Decision by Army Corps of Engineers not to locate hurricane protection levee on property owner’s land and thereby to reduce naturally occurring flood damage was not a unconstitutional taking of property.)

unreasonable conduct, strict liability requires only the showing of duty, damages and causation. Most strict liability cases involve dams but some involve irrigation canals and levees as well.112

States which do not follow the doctrine of strict liability for the construction and operation of dams and related flood loss reduction structures recognize nuisance, trespass, and negligence as grounds for suits. Because of the severe harm which may result from a failure of water control structure, the standard of care in negligence suits often approaches strict liability. In general, the greater the flood risk created by government activity, the greater the potential for successful liability suits based upon negligence, nuisance, riparian rights, trespass, or other theories.

Negligence

The essence of a negligence suit is the "unreasonableness" of government or private conduct in the circumstances.113 Private individuals increasingly sue governments for causing or contributing to natural hazard losses under a legal “negligence” theory.

In general, all individuals have a duty to exercise "reasonable care" in their actions in order to avoid injury to others. Unlike suits based upon nuisance and trespass which involve damages to land, negligence is much broader and applies to a broad range of actions where one individual may damage others. The claimant in a successful negligence suit must establish that an individual failed to conduct himself or herself as a hypothetical "reasonable man" in the circumstances and this resulted in damage. The essential elements which must be proven in a negligence suit are: duty, breach, damage, and causation.

Whether a government is “negligent” in undertaking actions which increase flood damages in a specific context depends upon a broad range of factors described above in section 2 of this paper.

As the degree of flood risk increases, the degree of care governments must exercise to act “reasonably” also increases. This includes the design, construction, and maintenance of roads, stormwater facilities, flood warning systems, and dams, dikes, and levees (where strict liability does not apply). Where severe harm may result from an activity or use, a


112 See, e.g., Lingren v. City of Gering, 292 N.W.2d 921 (Neb., 1980) (Court held that a city and irrigation district were liable for seepage and other water damage from an irrigation canal based upon strict liability or, alternatively, negligence.)


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"reasonable man" must exercise great care. 114 With an ultrahazardous activity such as a dam, the degree of care required may be so great that it approaches strict liability.

7. Is the Constitutionality of flood plain regulations related to the degree of flood risk?

In general, the greater the flood risk, the greater the weight given by courts to character of the public action in balancing public interests and private rights. Courts apply three overall tests in deciding whether a taking has occurred in regulatory contexts. See, e.g., *Lingle v. Chevron U.S.A., Inc.*, 115 *Mansoldo v. State*.

--First, they determine whether a “physical” taking has occurred. This is a “categorical test.” Courts, with very limited exceptions, find a taking if private property is physically used for public purposes. See, e.g., *Loretto v. Teleprompter Manhattan CATV Corp.* 117 An example of a physical taking would be government construction of a levee on private property. This test applies primarily to nonregulatory government activities because physical taking is rare in regulatory contexts.

--Second, they determine whether the regulations “deny all economic use” of lands. This is a second “categorical test”. See e.g., See *Lucas v. South Carolina Coastal Council*. 118 Courts, with important exceptions, find a taking if regulations deny all economic use of private lands. See, e.g., *Morris County Land Imp. Co. v. Parsippany-Troy Hills Tp* 119 (Court invalidated in total a wetland/floodplain conservancy district which permitted no economic uses where the district was primarily designed to preserve wildlife and flood storage.) This is the most common ground for courts holding regulations to be a taking although few suits have been successful in natural hazards contexts.

-- Third, if there is no physical taking or denial of all economic use, courts apply a third test: Does the public interests served by the regulations outweigh private interests? This is the so called “Penn Central” balancing test. See, e.g., *Penn Central Transp. Co. v. New York City*; 120 *Agins v. City of Tiburon*. 121 The results in a specific circumstance depend upon a number of factors. Principle factors include “(t)he economic impact of the regulation on the claimant and particularly, the extent to which the regulation has interfered with distinct investment-backed expectations…” and the “character of the governmental action”. 122 As far as the author could determine, no court has held that hazard regulations are a taking when applying the Penn Central balancing of public and

114 See *Blueflame Gas, Inc. v. Van Hoose*, 679 P.2d 579, 588 (Col., 1984) in which the court held “(t)hat the greater the risk, the greater the amount of care required to avoid injury.”
117 458 U.S. 419 (S.Ct., 1982).
120 438 U.S. 104 (S.Ct., 1978).
121 447 U.S. 255 (S.Ct., 1980).
private interests test. Courts have traditionally given great weight to public health and safety considerations in sustaining regulations against Constitutional taking challenges. See, e.g., *Queenside Hills Realty Co., v. Saxl*,\(^{123}\) in which the Court stated where public safety is involved, the “legislature may take the most “conservative course which science and engineering offer.” See also, *Mugler v. Kansas*,\(^{124}\) (Court rejected a taking challenge to laws prohibiting the production or sale of intoxicating beverages.), *Goldblatt v. Town of Hempstead*,\(^{125}\) (Court upheld ordinance which prohibited extraction of gravel below the groundwater level against taking claim due, in part, to the possible safety hazards posed by such open water pits. This ordinance effectively prevented any economic use of the land.)

Courts have broadly supported restrictive regulations for high risk flood areas based upon public safety, nuisance prevention, public trust and other concerns.\(^{126}\) See cases described below.

Although courts have broadly upheld restrictive regulations for high risk areas because of the threats to safety and nuisance impacts, courts have also warned that governments that regulations which deny all economic use of lands could be a taking. See, for example, *Lucas v. South Carolina Coastal Council*\(^{127}\) in which the Supreme Court held that state beach statute prohibiting building of a house in a high risk hurricane/erosion area which prevented “any reasonable use of lots” was a “categorical” taking unless the state could identify background principles of nuisance and property law which would prohibit the owner from developing the property. Courts have held or warned that regulations could be unconstitutional in a small number of other flood-related cases where regulations prevented all economic uses.\(^{128}\)

Examples of cases in which courts have supported tight regulations for high risk areas include the following:


However, in *Lingle v. Chevron U.S.A., Inc.*, 544 U.S. 528 (2005) the Supreme Court held that violation of due process rights is not, in itself, a taking and that due process and takings inquiries are separate. This raises the question to what extent the goals of regulations should be considered in deciding whether a taking has occurred. In interpreting *Lingle*, the federal court of appeals in *Rose Acre Farms v. U.S.*, 559 F.3d 1260 (Fed. Cir. 2006) held that health and safety considerations continue to be relevant to the “character of government action” in applying the Penn Central test for taking. The court held that “(W)e do not believe Lingle caused any diminution in the importance of Penn Central character prong, at least with respect to public health and safety regulations.” *Id.* at 1281.


*See Annicelli v. Town of South Kingstown*, 463 A.2d 133 (R.I., 1983) (Court held that prohibition of construction on a heavily developed barrier island subject to hurricane damage was a taking of property where environmental values rather than hazards were heavily emphasized in regulation.); *Monsoldo v. State*, 898 A.2d 1018 (N.J., 2006) (New Jersey Supreme Court held that state floodway restrictions could be a taking of private property if regulations deny all economic or productive use citing *Lucas, Lingle* and other cases. However, the court also held that considerations of legitimate state interest have no bearing on whether the state regulation was a taking (citing *Lingle v. Chevron U.S.A. Inc.*. 544 U.S. 528 (S.Ct. 2005). Other cases such as *Rose Acre Farms v. U.S.* 550 F.3d 1260 (Fed. Cir. 2009) suggest that the New Jersey Supreme Court may have misinterpreted *Lingle*. See discussion in note 122, supra.
--Coastal barrier islands and beaches. See Gove v. Zoning Board of Appeals of Chatham,129 (Court held that zoning board’s denial of a residential building permit for a parcel of land located within a coastal conservancy and flood district subject to severe coastal flooding was not a taking because it did not deny the landowner all economically beneficial use of land and did not deprive her of distinct investment backed expectations.); McQueen v. South Carolina Coastal Council,130 (Court held that denial of permits to backfill two lots and build bulkheads for an area considered “tidelands” was not a taking because they were public trust property and subject to control by the state.); Spiegle v. Beach Haven,131 (Court upheld, against facial challenge, building setbacks and fence ordinances for a coastal area which had been badly damaged by the Ash Wednesday storm of March 1962 against claims that the regulations were a taking of private property.); McCarthy v. City of Manhattan Beach,132 (Court upheld a beach zoning district which limited the beach to open space recreational uses based, in part, upon potential for storm damage to structures if constructed in the beach area.); Town of Indialantic v. McNulty,133 (Court upheld setback line in part, to prevent future flood and erosion damage from hurricanes.)

--Flash flood areas. See Linquist v. Omaha Realty, Inc.,134 (Court held that a resolution of Rapid City council of June, 1972 prohibiting issuance of building permits for one block on each side of Rapid Creek after a devastating flood until a study was completed by the planning commission was a valid exercise of police powers and not a taking.); First English v. County of Los Angeles,135 (On remand from the Supreme Court, the California court held that, as a matter of law, the Los Angeles County’s interim floodplain regulations for an area subject to severe fire and flood hazards and public safety concerns was not a taking.); Turner v. County of Del Norte,136 (Court upheld county floodplain zoning ordinance limiting areas subject to severe flooding to parks, recreation, and agricultural uses in an inverse condemnation action.)

--Dunes. See Wyer v. Board of Environmental Protection,137 (Court held that denial of variance under sand dune laws not a taking because property could be used for parking, picnics, barbecues and other recreational uses.); Hall v. Board of Environmental Protection,138 (Court upheld regulations prohibiting construction in sand dune areas against taking claim.)

129 831 N.E.2d 865 (Mass. 2005).
132 264 P.2d 932 (Cal., 1953).
133 400 So. 2d 1227 (Fla., 1981).
137 747 A.2d 192 (Me. 2000).
138 528 A.2d 453 (Me.,1987).
--Floodways. See *Foreman v. State Department of Natural Resources*,\(^\text{139}\) (Court sustained an injunction prohibiting defendants from making deposits on a floodway and requiring removal of deposits previously made as not a taking of property.); *Vartelas v. Water Resources Comm’n.*,\(^\text{140}\) (Court held that denial of a single permit with a particular design and construction materials pursuant to a Connecticut state level floodway program was not a taking.); *Usdin v. State Dept. of Environmental Protection*,\(^\text{141}\) (Court upheld against a takings challenge to state floodway regulations prohibiting structures for human occupancy, storage of materials, and depositing solid wastes in floodways because of threats to occupants of floodway lands and to occupants of other lands.); *Young Plumbing and Heating Co. v. Iowa Natural Resources Council*,\(^\text{142}\) (Court sustained denial of a state permit for a condominium in a floodway where such a structure would have raised the level of flood waters on property on the other side of the creek. The concept of equal degree of encroachment was endorsed as well as efforts to anticipate future watershed conditions.); *Maple Leaf Investors, Inc. v. State Dept. of Ecology*,\(^\text{143}\) (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.)

--Other areas with public safety concerns. Courts have upheld regulations where there was even a hint of threat to public safety. See *Goldblatt v. Town of Hempstead*,\(^\text{144}\) (Supreme Court upheld ordinance which prohibited extraction of gravel below the groundwater level against taking claim due, in part, to the possible safety hazards posed by such open water pits. This ordinance effectively prevented any economic use of the land.); *Consolidated Rock Products Co. v. Los Angeles*,\(^\text{145}\) (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-impacts upon the sufferers of respiratory ailments who lived nearby.)

The Illinois Supreme Court in *Beverly Bank v. Ill. Dep’t of Transp.*,\(^\text{146}\) addressed some of these broader public safety concerns in upholding state flood regulatory legislation which prohibited all new residential construction in a 100 year floodway. The court cited with approval the state’s arguments for prohibiting new residential construction in the 100-year floodway:\(^\text{147}\)

In addition to the interest of reducing flood damage, defendant (state) argues that the prohibition protects the health and welfare of those who would live in the new houses, reduces the expenditure of public funds, and limits the extent of emergency relief services required by the periodic inundation of flood

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\(^{139}\) 387 N.E.2d 455 (Ind., 1979).
\(^{140}\) 153 A.2d 822 (Conn., 1959).
\(^{142}\) 276 N.W.2d 377 (Iowa, 1979).
\(^{143}\) 565 P.2d 1162 (Wash., 1977).
\(^{144}\) 369 U.S. 590 (S.Ct., 1962).
\(^{146}\) 579 N.E.2d 815 (Ill., 1991)
\(^{147}\) Id. at 226.
waters....Even if plaintiff were to successfully build the two proposed houses in the floodway at an elevation which would not flood, defendant points out, the homes would still be surrounded by moving water during the 100-year floods. Emergency vehicles would not have access to the homes, and the residents could find themselves stranded without food, clean water, or electricity. In such a situation, defendant points out, the residents would very likely need to relocate temporarily to emergency shelters provided by the State's disaster relief services. Defendant argues that each and all of the above rationales justify the challenged flood control legislation and sustain its validity.

On a somewhat similar note, the New Jersey Supreme Court in *Usdin v. Department of Environmental Protection*,148 upheld restrictive floodway floodplain regulations for a commercial area because of the potential impact on “employees” and “nearby citizens”. The court observed:149

It seems clear that the DEP regulations are aimed to prevent injury during flooding to potential employees of the warehouse or materials which may be stored to other nearby citizens whose lives or property may be endangered by stored items being swept along in a flood and to all residents who might drink water polluted because the stored items have entered an aqueduct or aquifer. These restrictions are consistent with their stated purposes and are a reasonable means of attaining those goals. The subject regulations as applied to the facts of this case, have as their purpose the prevention of harm befalling other citizens

See also *Maple Leaf Investors, Inc. v. State Dep’t of Ecology*,150 in which a Washington court upheld denial of a permit for houses in floodway of the Cedar River because there was danger to persons living in a floodway and to property downstream.

Even where activities are not negligent or violation of water law, they may pose health and safety risks to property owners or their guests. For example, in *Spiegle v. Beach Haven*151 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 may apply in many similar high risk situations:152

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.

149 Id. at 331.
152 Id. at 137.
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.

The costs of extending public services to hazard areas are often 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. See, e.g., Board of County Commissioners v. O’Dell,153 in which the Colorado Supreme Court upheld the denial of subdivision approval by the county board of commissioners for a wildfire area with limited access, lack of water for fire suppression, and soil and slope problems. See also Matter of Gregory v. Zoning Bd., Somers,154 in which the court held that zoning board’s denial of an area variance because of inadequate access for emergency vehicles was justified. See Chiancola v. Board of Appeals of Rockport,155 in which the court upheld decision of zoning board of appeals deny a landowner a variance to construct a single-family home on a landlocked lot on the ground that a lengthy driveway made access by emergency vehicles too precarious. See Schwister Family v. Outagamie Cnty.,156 in which the court upheld denial of conditional permit for raised road within a floodplain due to access problems for emergency vehicles.

8. How can governmental units through administrative measures reduce government liability based upon tort (common law) legal theories of liability?

Governments have at their disposal a number of approaches to reduce potential liability based upon tort (common law) theories of liability. Approaches governmental units can take for reducing liability based upon common law legal theories may divided into two general categories: (1) approaches for reducing potential liability where governments have already increased natural hazards due to grading of lands, fills, construction of roads, levees, or other activities, and (2) approaches for reducing potential liability where governments have, as yet, limited liability but their future actions may increase hazards or hazard losses and potential liability. Strategies for achieving these goals include the following:

156 730 N.W.2d 460 (Wis. 2007) Unpublished.
Reducing common law (tort) liability from existing flood problems.

Governments have a number of options for reducing common law (tort) liability for existing hazards while maintaining responsibility in the use of their lands:

---Governments can, in some situations, reduce to or below natural levels existing flood, erosion, and other hazards through dams, levees, bioengineering and similar structural hazard reduction measures. However, care must be taken because these hazard reduction measures may, in some instances, create additional potential liability by increasing hazards on other lands or result in catastrophic losses when dams, levees or other structures fail.

---Governments can acquire private hazard areas and relocate private houses and other development outside of such areas. For example, more than 12,000 flood prone structures were acquired by federal agencies working with states and local governments along the Mississippi and its tributaries after the Great Flood of 1993. See Conrad, D. Higher Ground: A Report on Voluntary Property Buyouts in the Nation’s Floodplains, National Wildlife Federation.

---Governments can provide technical assistance and grants in aids to help private landowners who are subject to increased hazards caused by government actions flood proof their structures. If landowners floodproof their structures and are, therefore, not damaged by natural hazards, they have no basis or incentive for suit.

---Governments may implement flood warning systems, evacuation planning efforts, and other nonstructural damage reduction measures to reduce potential natural hazard damages to private landowners and entrants on public lands. For example, after the Big Thompson Canyon flash flood disaster in 1976, Larimer, Colorado erected "Climb to Safety" signs along the length of the Canyon. Similar signs have been erected by Boulder County and by other Front Range communities. Reduction in damage will reduce the number of suits and the amounts of damage awards.

---Governments may limit public use of high risk areas on public lands. For example, the Wisconsin Department of Natural Resources has prohibited public use of certain bluff-edge and canyon areas in Parfrey's Glen (a natural area) to prevent hikers from falling from a bluff. Again, private individuals will not sue governments for flood damage if they do not suffer damages.

---Governments can encourage private landowners to acquire hazard insurance such as flood insurance from the National Flood Insurance Program. Landowners are less likely to sue governments for hazard losses caused by governments if damages are compensated by insurance, disaster assistance or other forms of assistance. Insurance is no guarantee against private suits. But, landowners rarely sue if they are made financially whole in other ways.
Governments can adopt regulations which establish tight nonconforming use standards for rebuilding buildings in hazard areas. If enforced, these regulations will, over time, result in removal of some hazard prone buildings and activities from hazard areas or hazard-proofing such as elevation of buildings in flood zones. By reducing the potential for damage, governments also reduce the potential for law suits.

Governments can prepare and implement natural hazard assessment and liability reduction plans, including pre and post disaster mitigation plans, which include many of the measures already suggested. Preparation of such liability reduction plans may include the following steps:

A. Make a community-wide survey of natural hazards. Sound factual information including hazard maps indicating not only where hazards are located but the severity of the hazards can guide public actions to reduce liability including adoption of mitigation measures (e.g., warning systems), erosion and flood control works, and regulation of hazard prone activities.

B. Once a survey of natural hazards is completed, conduct a "liability appraisal". In such an appraisal, governments should identify areas where governments have substantially increased or may increase natural hazard damages to adjacent private lands. Such an appraisal should also identify areas on public lands where private individuals or where the public or government employees could be injured by natural hazards in using public lands. Particular attention should be paid in such an audit to public works (e.g., reservoirs, dams, levees, bridges, stormwater systems) which have increased hazards on other lands since such increased damage is a common basis for successful liability suits. The dates of such activities should be noted to determine whether statutes of limitation have run barring suits.

C. Prepare an action plan to reduce potential liability. Having inventoried hazard areas and decided where the potential for liability is the greatest, a governmental unit can then take remedial actions. Where existing uses have increased the potential for natural hazard losses on private lands, the government unit should consider mitigation measures to reduce potential damage to levels at or below those which would occur naturally. Such mitigation measures may include mapping, warning systems, education, regulation, evacuation, relocation, and hazard reduction structures. As suggested above, by reducing damage potential to or below those naturally occurring, the potential for successful suits is reduced as well as the amount of damages if suits succeed. Mitigation measures must be undertaken carefully to insure that they are not, in themselves, the source of potential liability. A hazard mitigation plan should be undertaken with knowledge that the process of identifying hazards and planning mitigation measures may increase the foreseeability and potential for community liability if mitigation actions do not follow.

D. Implement the plan. Plans are of little value if they are not implemented. Often governments will need to implement plans in stages with the areas posing threats.
to health and safety addressed first. In designing and undertaking mitigation measures, governments should not promise more than what they can provide and should not over-represent the benefits of hazard mitigation actions where such assistance may create false expectations. For example, governments should state on hazard maps that the maps do not reflect all possible hazard events and may contain inaccuracies. Governments should also provide caveats and state limitations with regard to hazard warnings, evacuation plans, and emergency shelters. For example, hurricane “vertical evacuation” shelters should not (depending upon the circumstances) be represented as “safe havens” because there is often considerable risk associated with these structures. They may, however, be represented as providing “last resort” protection if other means have failed.

Reducing tort liability for future increases in flooding.

Governments have more flexibility in preventing future increases in natural hazards and resulting damages and lawsuits. To avoid future problems, governments need to make informed decisions which reflect the full range of risks including risk of catastrophic losses if a dam fails or a levee is overtopped. Governments have the following options to reduce potential future problems which are also consistent with maintaining government responsibility in the management of flood hazards:

--Government units may reduce future liability by reducing government and private activities in hazard areas and by adopting regulations which require private mitigation measures such as floodproofing where private development is permitted. (Note these approaches overlap with approaches for addressing existing problems.)

--Governments can accurately map hazard areas. Accurate maps can help governments avoid hazard areas for roads, sewer and water, and other government activities in the floodplain. Sound data is key to informed future decision-making and reducing future problems.

--Governments can prepare and implement natural hazard assessment and liability reduction plans of the sort described above with an emphasis upon preventing future problems.

--Governments can adopt a no adverse impact hazard management standard for public and private activities and implement this goal through regulatory and nonregulatory approaches.157

--Governments can locate damage-prone government buildings such as post offices, roads, and sewer and water out of hazard areas. Complete avoidance of hazard areas is particularly desirable for rapid onset and serious hazard areas such as flash floods, earthquakes, mudslides, landslides, and bluff caving where government employees and members of the public may be killed or injured.

--Governments can acquire hazard areas and put them into open space use. For example, many local governments have acquired flood hazard areas as greenways and other open spaces. Examples include Milwaukee county and Baltimore county. This can reduce potential, future common law suits and suits based upon Constitutional claims.

--Governments can acquire flood easements wherever government activities will increase hazards. For example, the U.S. Army Corps of Engineers has purchased flowage easements from private landowners where lands may be periodically inundated by Corps’ projects.

--Where governments allow the public to use public lands which are subject to natural hazards, governments can avoid high risk flood, erosion, avalanche, and other hazard for construction of public buildings, roads, and trails and remedy or reduce hazards (where this is practical) such installing railings on bridges. Other government options include excluding the public from particularly dangerous areas; posting warning signs; and issuing warnings. It may also be advisable, in some instances, not to charge the public for use of public lands subject to natural hazards; otherwise the public may be considered "invitees". Governments owe invitees a high standard of care to investigate hazards and to either warn of hazards or to remedy such hazards.

--Where outright avoidance of hazard areas is not possible for roads, sewage treatment plants, libraries, schools, and other public uses, governments can employ mitigation measures to reduce potential damages. The degree of care exercised and the selection of mitigation measures should reflect the degree of risk both with regard to the type of natural hazard and the type of use (e.g., school versus sewage treatment plant). In siting and design of government activities in the floodplain, several more specific suggestions include:

(A) Governments should apply a “no adverse impact” standard to any activity which may result in physical damage to adjacent lands (e.g., flooding, erosion, landslides).

(B) Governments can approach structural hazard loss reduction measures with particular care because of their high potential for increasing hazards in some instances and resulting liability suits. More specifically, they should consider residual risk in construction of groins, seawalls, dikes, dams, and levees. They should also approach with care construction of roads, bridges, and any filling or grading which may increase flood and erosion hazards and damages.

(C) Where governments undertake hazard reduction measures, decisions involving the weighing of costs, safety and other factors such as the level of protection to be afforded (e.g., the 100-year flood) and the design and implementation specifications should be submitted to the legislative body for approval. Documentation of the discretionary nature of decisions reduces government liability exposure. Once the overall design criteria have been selected, governmental units should be careful in construction, maintenance, and operation since these activities are often considered "ministerial" and subject to suit.

(D) Where government lands are leased, rented, or sold, notice of hazards can be provided in writing to lessees, renters, or buyers. Governments could also place disclaimers in leases and titles with regard to hazards on rented, leased, or sold lands but need to proceed with knowledge that courts may not recognize liability disclaimers for affirmative acts of negligence.

--To reduce potential liability for issuance of permits for private development in hazard prone areas which may increase hazards on other lands, governments can:

(A) Apply a no adverse impact standard to private activities and refuse to approve permits which will increase flood heights or other hazards on other lands. For example, the Wisconsin Department of Natural Resources refuses to approve permits for activities in floodways areas unless the permit applicant works out an easement with any upstream, adjacent, or downstream landowner who will be subjected to increased flood heights or velocities caused by such a permit.

(B) Refuse to accept subdivision dedications of stormwater systems, roads and other infrastructure which may result in potential liability. In some instances, particularly in California, communities have successfully refused to accept dedications of stormwater systems from subdividers to reduce potential liability.

(C) Incorporate disclaimers in natural hazard ordinances pertaining to potential inaccuracies of flood and other hazard mapping. Minnesota and many other states have adopted model floodplain ordinances for use by local governments containing disclaimers pertaining to the accuracy of flood maps and the magnitude of the regulatory flood.
(D) Require that disclaimers and warnings concerning flood be recorded in deeds and on subdivision plats. Regulatory agencies can also require that permit applicants agree to hold harmless governmental units if permitted buildings or activities are subject to natural hazards and damages. This may not protect a regulatory agency from gross negligence but may otherwise help.

Tight regulation of private land may of course, result in “takings” claims in some instances. A number of measures discussed below may be taken to reduce the potential for successful taking claims.

9. How can governmental units reduce Constitutional challenges to regulations through administrative measures?

Governmental units may reduce potential Constitutional challenges to hazard area regulations and the “taking” of private property without payment of just compensation through a number of administrative measures. If carried out with care, all of the following administrative measures are also consistent with government responsibility in the management of floodplain areas:

--Utilize a "performance standard" approach in regulations and allow variances or other special permits only under tightly controlled circumstances. Courts have unanimously endorsed performance standards for buildings and other activities in hazard areas. Denial of permits or conditioning of permits and to achieve other hazard reduction goals has been broadly upheld. Variances and special exceptions provide a safety value and reduce the chance that a regulation will be held unconstitutional. However, they also need to be tightly controlled to prevent increasing flood hazards and hazard losses.

--Collect and utilize good hazard information. Scientifically sound information is particularly important to meet Constitutional challenges for areas subject to highly restrictive regulations. A governmental unit may use floodway and floodplain maps, soils maps, earthquake maps, geotechnical studies, erosion studies, and other technical studies to document not only hazards but the offsite threats to other lands.

--Adopt clear and certain regulations for hazard areas as soon as possible. Courts consider the reasonable "investment-backed expectations of landowners", usually measured at the time that they acquired property. This means that the sooner that areas are regulated, the smaller the chances that future landowners will be able to make successful taking or due process challenges.

--Adopt and administer regulations in close conformance with statutory procedures including notice and hearing. Courts are particularly sensitive to taking arguments where regulations have been adopted or administered without clear Due Process although, technically, “taking” and “due process” claims are separate.
--Ensure that regulations are reasonable and fair in concept, administration and enforcement. Courts are also sensitive to discriminatory regulations and are more likely to find a taking when there is even a hint of discrimination.

--Do not adopt regulations for the principal objective of reducing future land acquisition costs (e.g., for dikes, dams, reservoirs, artificial levees, etc.) since courts, in general, have held that stringent regulations adopted primarily for this objective are a taking.

--Where restrictive regulations are adopted to serve multiple objectives such as reduction of flood losses and protection of wildlife values, emphasize and provide careful documentation for natural hazard loss reduction, public health and safety, and nuisance protection objectives as well as habitat values. Courts give particularly great weight to protection of public safety and prevention of nuisances.

--If governments attach conditions to development permits such as flood proofing requirements or preservation of floodway areas, governments should make sure that conditions are reasonably related to the impacts of the development. They should be particularly careful if dedications of land for public use are required with the goal of providing public use of open areas. In such circumstances, governments should ensure that the dedication requirements are related to and roughly proportional to the impacts generated by proposed activities.

--If governments apply highly restrictive regulations (prohibiting most uses) to hazard areas, they should:

(A) Provide accurate and well-documented hazards maps. In general, the more severe the restriction, the better the data and documentation should be.

(B) Limit highly restrictive regulations to narrow areas such as setbacks (where this is possible and consistent with good hazard area management) so that there is some possibility of a buildable area on each lot. Governments can help achieve this goal by adopting large lot zoning for hazard areas so that there will be a buildable site on each lot even if a portion of each lot is tightly regulated.

(C) Coordinate real estate tax policies and special assessment policies with regulations so that individuals subject to highly restrictive regulations are not being taxed on the full development value of the land.

(D) Provide (where appropriate) transferable development rights.

(E) Provide variances or special exception procedures to act as escape value where regulations may deny all economic use of land. However, even in such situations, applicants for variances or special exceptions should have the burden of showing not only that no economic use is possible for each parcel but that proposed activities will be safe, will not cause nuisances, and will not pose threats.
to not only the permit applicant but family, guests, business invitees, and members of the public who may have to conduct emergency rescue operations. Permits or variances should also incorporate no adverse impact hazard loss reduction measures.

(F) Identify lots where hazard regulations may deny all economic use of lands. These areas may then be targeted by the community for acquisition, easements, and tax breaks.

(G) Work with landowners to find positive uses and solutions where land owners claim that economic use are not possible for entire lots. Make positive proposals to landowners for economic uses such as the use of hazard lands to meet side yard, open space, and other regulatory requirements and the clustering of buildings on upland areas.

(H) Set aside funds for acquisition of fee or easement interests in lands where no economic use is possible and there are economic uses without nuisance impacts or other violation of state property and tort law. Acquisition of hazard areas is not legally needed to prevent uses which will have nuisance impacts or threaten health and safety. But acquisition can often serve broader objectives such as providing public outdoor recreation opportunities for a greenway that cannot be provided through regulations alone.

10. How can governmental units through legislation reduce government liability based upon common law legal theories?

States and the federal government have a number of legislative options to reduce tort and from natural hazard losses caused or exacerbated by governments in managing lands or waters. The following discussion first examines the overall Constitutionality of legislative changes to liability. It then considers more specific legislative options for limiting tort liability.

Constitutionality of legislation modifying liability. Courts have, with some exceptions, upheld legislative attempts to change the common law rules of tort liability to reduce the liability of states, the federal government, and local governments in the public sector and architects and engineers in the private sector. They have also endorsed legislative efforts to reduce liability for negligence where private and/or public landowners allow the public to use their lands recreationally. See generally, Silver v. Silver, in which the Supreme Court observed that “the Constitution does not forbid the creation of new rights, or the abolition of old ones recognized by the common law, to attain a permissible legislative object.” See also cases cited in "Annot. Effect of Statute Limiting Landowner's Liability for Personal Injury to Recreational User", 47 A.L.R.4th 262 (1986). See, for example, Fish v. Coffey, in which the Ohio court held that a statute exempting police officers from liability in responding to emergency calls was not arbitrary exercise of police

158 280 U.S. 117, 122 (S.Ct., 1929).
159 514 N.E.2d 896 (Ohio, 1986).
power. The Supreme Court and lower courts have upheld state laws changing the "common enemy" doctrine to “reasonable use” with regard to surface waters against claims of taking or violation of due process. But some courts have also found attempted changes to tort rules to be unconstitutional. See, for example, *Bornman v. Kossuth County Bd. of Sup’rs*, in which the court held that statutory abrogation of nuisance claims for agricultural activities was a taking.

Although courts have broadly upheld statutes changing the rules of tort liability, courts do not favor limitations on liability and have often restrictively applied these statutes. Other examples of legislative changes in tort liability and judicial reaction to such measures include the following:

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**Providing exemptions for activities in certain areas.** State legislators may reduce government liability by exempting activities carried out on certain hazard areas from liability. For example, some states have limited state and municipal liability for injuries on unimproved state lands. See, for example, *Mercer v. State* in which a California court applied a statute establishing immunity for injuries on unimproved state land to a dune area and held that the state had no duty to warn. See also recreational use statutes which exempt private and in some instances public landowners from liability where owners open their lands without charge to recreational uses.

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**Providing exemptions for certain activities in “emergencies”**. States have broadly adopted “emergency management”, Civil Defense, and other statutes reducing government liability for activities undertaken in a declared emergency. These statutes could be expanded or made more explicit.

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161 584 N.W.2d 309 (Ia., 1998).
163 See *Dyniewicz v. Cty. of Hawaii*, 733 P.2d 1224 (Haw. 1987) which held that the County of Hawaii was not subject to a suit for inadequate flood warnings and resulting deaths pursuant to a statute (Hawaii Revised Statutes, #128-18) which provided in part that neither the State nor any political subdivision “engaged in civil defense functions pursuant to this chapter…shall be civilly liable for the death of or injury to persons, or property damage, as a result of any act or omission in the course of the employment or duties under this chapter”.

In *Castile v. Lafayette City*, 896 So.2d 1261, 1263 (La. 2005), writ denied 05-0860, 902 So.2d 1029 (La. 2005) a Louisiana court held that the immunity provision in the Louisiana Homeland Security and Emergency Assistance and Disaster Act absolved Lafayette City of legal responsibility for damages and injuries caused when employees put hurricane debris from Hurricane Lili at a road intersection and a traffic accident resulted. The court observed that the Act covered the “mitigation of, preparation for, response to, and the recovery from emergencies or disasters.” However, the court in *Clement v. Reeves*, 935 So.2d 279 (La. 2006) concluded that immunity provisions of this Act did not extend in time beyond the Governor’s declaration of emergency.

In *Miller v. Cambell Cty.*, 722 F.Supp. 687 (D. Wyo. 1989) a district court held the county’s evacuation order adopted pursuant to Wyoming’s Disaster and Civil Defense Act for a subdivision with health and safety problems posed by methane and hydrogen sulfide gas seepage did not give rise to a Section 1983 due process or taking claims and that it was doubtful that preventing a landowner from returning to his home for a few days was compensable as a taking.
--Exempting certain types of design decisions. Some states have adopted statutes partially or wholly exempting government design decisions from liability under certain circumstances. For example, Cal. Govt. C. Sec. 830.6 provides that damages from design features of public improvements are not the basis for legal action if the design feature was actually approved in advance by the public entity exercising its discretionary authority in some explicit manner, and the choice of the design feature is supported by "substantial evidence." However, the California courts have created an exception to design immunity where "changed conditions" subsequent to the original design approval creates a dangerous condition and the public entity has constructive or actual notice of the condition. See Baldwin v. State.\textsuperscript{164} For a case interpreting a design immunity statute as providing immunity (changed conditions are not considered) see Leliefeld v. Johnson.\textsuperscript{165}

--Immunizing classes of government workers. Some states have adopted statutes immunizing specific classes of government workers from tort liability for specific classes of activities. See, for example, Fish v. Coffey,\textsuperscript{166} in which the court held that an Ohio statute is Constitutional absolving from liability police officers engaged in the operation of a motor vehicle in responding to emergency call. See also cases cited in Annot., Validity and Construction of Statute Authorizing or Requiring Governmental Unit to Indemnify Public Officer or Employee for Liability Arising Out of Performance of Public Duties, 71 A.L.R.3d 90 (1976). But see Madden v. Kuehn,\textsuperscript{167} in which the court held that a doctor working for state was not immunized from liability by state statute.

--Adopting statutes of repose or limitation. State legislatures have reduced private and public liability for tort violations by adopting statutes of limitation or repose with short time periods for certain activities. A statute of repose begins to run when an activity or structure (e.g., construction of a dam, levee, stormwater detention pond) is completed. In contrast, a statute of limitation begins to run when an injury occurs (e.g. when a 100 year flood destroys a house adjacent to a drainage channel.) For examples of cases applying statutes of limitation or repose in public hazard-related contexts see for example:

--Durden v. City of Grand Prairie,\textsuperscript{168} (Suit against city for nuisance and negligence causing flood damages was barred by 2-year statute of limitation.)

--Capitol Supply Co. v. City of St. Paul,\textsuperscript{169} (Statute of limitation/repose for damage from storm sewer was 2 years from injury or 10 years from construction.)

\textsuperscript{164} 491 P.2d 1121 (Cal., 1972).
\textsuperscript{165} 659 P.2d 111 (Ida., 1983).
\textsuperscript{166} 514 N.E.2d 896 (Ohio, 1986).
\textsuperscript{167} 372 N.E.2d 1131 (Ill., 1978).
\textsuperscript{168} 626 S.W.2d 345 (Tex., 1981).
\textsuperscript{169} 316 N.W.2d 554 (Minn., 1982).
--Autin v. Parish of Lafourche,170 (10- year statute of limitation applies to Parish agreement to construct flood control measure.)

Because statutes of “repose” begin to run from the time an activity or structure is completed rather than the point of a natural hazard event, such a statute may reduce government liability but it may also encourage irresponsible actions and provide no remedy for designs which fail in infrequent but severe natural hazard events (e.g., a 100 year flood).

--Modifying joint tort liability. Many legislatures and some courts have substituted "comparative negligence" for "joint liability” or “joint and several liability.”171 Joint liability or joint and several liability means that if there is more than one defendant in a suit causing claimed damages, each defendant is liable for full amount of the damages. Landowners damaged by flooding in a jurisdiction with joint and several liability often sue governmental units with the hope of full compensation from such units even if the governmental contribution to the flood hazard and resulting damages is small. In contrast, comparative negligent statutes apportion blame and damages between defendants and between defendants and plaintiffs. Comparative negligence statutes also typically bar recovery by a plaintiff found to be more than 50% negligent.172

--Instituting caps on the amounts of tort awards, attorney's fees, expert witness fees. Large tort liability awards and escalating attorney's fees, expert witness fees, and other costs have prompted legislative bodies in some states to adopt a variety of "caps" on awards and fees including limitations on the types of damages that may be recovered,173 the amount of these damages, attorney’s fees, and expert witness fees. Courts have generally upheld such caps.174

--Requiring that injured parties file claims with governmental units before initiating court actions. Most states now require in their tort claim acts that individuals wishing to initiate a negligence, nuisance, taking or other claim against a governmental unit first file the claim with the affected governmental unit before papers are filed in

170 423 So. 2d 98 (La., 1982).
court. This facilitates out of court settlement prior to costly litigation, reduces the costs of attorneys and expert witnesses, and reduces delays in getting compensation to damaged individuals. These requirements have been broadly sustained. However, there is disagreement among the courts concerning the applicability of prior claim requirements contained in tort claim acts to inverse condemnation suits.

11. How can governmental units through legislation reduce Constitutional challenges to regulations or the amount of “taking” awards?

Legislators have a number of options for reducing the number of inverse condemnation suits or the amounts awarded for “taking” of private property without payment of just compensation including both claims for physical damage to private property (e.g. public road construction which increases flood levels on adjacent private property) and unconstitutional taking of property by regulations. However, this is an unsettled area of law and legislators are more restrained in modifying liability based on Constitutional grounds than modifying tort liability. “Taking” and “just” compensation are ultimately judicial issues.

Legislators have attempted to reduce the number and amounts of “takings” claims in a number of ways.

--Adopting statutes of limitation. States may adopt statutes of limitation restricting time periods for the filing of inverse condemnation suits. See Block v. North Dakota, in which the Supreme Court held that “A Constitutional claim can become time-barred just as any other claim can…Nothing in the Constitution requires otherwise.”

--Limiting attorney’s fees. There is no Constitutional requirement that high attorney’s fees be paid in inverse condemnation actions and legislatures may reasonably limit fees.

--Limiting the types of allowable damages. For example, some states legislatively deny punitive damages for certain types of suits against governments.

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179 Id at 291. See also United States v. Dickinson, 331 U.S. 745 (1947); Smith v. City of Charlotte, 330 N.E.2d 844 (N.C., 1966); Autin v. Parish of Lafourche, 422 So.2d 98 (La., 1982); Daniel v. City of Ashdown, 94 Ark. App. 446 (Ark., 2006) (Seven year statute of limitation applies to inverse condemnation actions.).
181 See http://www.atra.org/show/7343 , Punitive Damages Reform, for a description of state statutes limiting punitive damages. See also http://www.hinshawlaw.com/files/Publication/b3eae98f-c98b-4fc0-
**Capping the amount of damages.** Legislatures may cap inverse condemnation damage awards providing “just compensation” is paid. See, for example, *Hasselblad v. City of Green Bay*,\(^{182}\) in which a Wisconsin court held that Wisconsin statute setting $50,000 limit on business replacement damages in eminent domain was Constitutional. See also *Poudre Valley Rural Elec. Ass’n v. City of Loveland*,\(^{183}\) in which the court held that the General Assembly may adopt a statute establishing the amount of compensation provided in a condemnation action.

**Authorizing a regulatory agency to modify regulations in the event a court finds a “taking”.** Legislatures can adopt statutes authorizing regulatory agencies to modify regulations in the event a court determines a taking has occurred. For example, a Massachusetts coastal wetland regulatory statute includes such a procedure for coastal wetland protection orders. See M.G.L. c. 130, s. 105, 310 CMR 12.00. This statute and implementing regulations provide (310 CMR 12.00) that a landowner affected by such an order may within 90 days of receiving notice of an order “petition the Superior Court to determine whether such order so restricts the use of his property as to deprive him of the practical uses thereof and is therefore an unreasonable exercise of the police power because the Order constitutes the equivalent of a taking without compensation.” If the court finds that the order is the equivalent of a taking and enters a finding that such order shall not apply to specific lands, the state is authorized to “take the fee or any lesser interest in such land”. This test for taking closely approximates the “denial of all economic use” test applied by courts in broader contexts.

New Jersey also allows a wetland regulatory agency to modify its actions to reduce potential liability for uncompensated taking. The New Jersey Freshwater Wetland Statute authorizes a regulatory agency to modify “its action or inaction concerning the property so as to minimize the detrimental effect to the value of the property” if a court determines that issuance, modification or denial of a permit is a taking. More specifically, the New Jersey Freshwater Wetlands Act provides in part in (N.J.S.A. 13:9B-1 to 30, N.J.S.A. 13:9B-22b (#22b):

> If the court determines that the issuance, modification, or denial of a freshwater wetlands permit by the department pursuant to this act constitutes a taking of property without just compensation, the court shall give the department the option of compensating the property owner for the full amount of the lost value, condemning the affected property pursuant to the provisions of the “Eminent Domain Act of 1971…, or modifying its action or inaction concerning the property so as to minimize the detrimental effect to the value of the property.

For interpretation of this provision see *East Cape May v. State*.\(^{184}\)

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\(^{9d34-8dc33a34a903/Presentation/PublicationAttachment/91be66ab-d2e9-45b9-bd6f-948bbfd2530e/PunitiveDamages_50States%20FINAL.pdf; http://www.statutes-of-limitations.com/case_type/punitive-damages.\(^{182}\) 427 N.W.2d 140 (Wis., 1988).

\(^{183}\) See 807 P.2d 547 (Colo., 1991).

\(^{184}\) 777 A.2d 1015 (N.J., 2001).
Some Concluding Observations

It seems likely that the present trend in the courts to hold governments liable for increasing flood damages under tort and to a lesser extent Constitutional theories will continue. A combination of increased flood damages due to development and climate change, increased foreseeability of flooding, and decreased defenses such as “act of God” will result in more law suits.

There is much that governments could do to reduce common law liability while maintaining responsibility such as adoption of floodplain regulations to achieve both goals. Community adoption of a “no adverse impact” flood standard for public and private activities can provide an even-handed, overall goal. Flood control structures can reduce hazards and damages but they need to be used with care and with full consideration of residual risks.

It also seems likely that courts will continue to strongly support floodplain regulations against “taking” and “due process” claims. There is little indication at any level of the court system that support for hazard regulations is eroding. Nevertheless, it seems likely that the U.S. Supreme Court and lower courts will continue to carefully examine land use regulations (all types of regulations, not just hazard regulations) with care from due process as well as “taking” perspectives. Governments need to approach regulations which prevent all economic use of entire private properties and require dedication of floodplains and other open space for public use with particular care.

Congress and the states could legislatively reduce government tort and Constitutional liability by capping awards, adopting statutes of limitation, limiting the types of damages provided, limiting attorney’s fees, and other approaches suggested above. However, as also discussed above, it is important, that legislative bodies carefully consider the long term implications of legislative measures to reduce liability because such measures may also decrease government responsibility.

Finally, courts also need to recognize that governments are caught on the horns of a dilemma with regard to regulations. If governments fail to regulate natural hazard areas, natural hazard losses to private individuals and to government will increase with an increased community costs, conflicts and law suits. But, if governments tightly regulate private activities, they may also be sued by disgruntled landowners for Constitutional “ takings” of private property without payment of just compensation or due process violations. Courts need to clarify the rules for “taking”. They need to support hazard regulations reflecting degree of flood risk as well as provide even-handed treatment for landowners. This is sound public policy, consistent with reducing government liability while maintaining government responsibility.
Box 1: Glossary of Terms. (Note, many of the definitions below are from the internet.)

**Common law.** Common law is the law created or refined by judges. Their cases form the legal precedents for future law suits and decisions. This body of precedents is called the common law. The common law is derived from English law but has been widely adopted and expanded in the U.S.

**Cause of action.** A “cause of action” refers to the legal theory upon which a plaintiff brings a suit (e.g., negligence, nuisance, or trespass).

**Defendant.** A defendant is the person or persons sued.

**Defense.** A defendant may offer a variety of defenses when sued. He or she may challenge the correctness of the facts or rules of law offered by the plaintiff. A defendant may also offer affirmative defenses arguing that, even if the allegations against the defendant are true, the defendant is entitled to prevail for some other reason (e.g., “Act of God”).

**Negligence.** Negligence is a common law tort involving the failure to use “reasonable” care and resulting damage to others. It involves the doing of something which a reasonably prudent person would not do, or the failure to do something which a reasonably prudent person would do under like circumstances.

**Nuisance.** Nuisance is a common law tort doctrine involving a physical interference with the right to use land such as discharge of water by one landowner onto the lands of another landowner. Traditionally, nuisances have been divided into public nuisances which interfere with the reasonable expectations and rights of the general public and private nuisances which interference with the rights of specific people.

**Public trust doctrine.** An English common law doctrine adopted by U.S. courts that holds that certain resources such as water are preserved for public use, and that the government is required to maintain them. For example, lakes and rivers are typically considered by courts to be trust resources and owned by all citizens.

**Section 1983.** The Civil Rights Act of 1871, (42 U.S.C. s. 1983) also known as the Ku Klux Klan Act of 1871, allows individuals to sue federal, state or local government actors for civil rights violations including the taking of private property without payment of just compensation and violation of due process guarantees.

**Statute of limitations.** A statute of limitation is a state or federal statute which establishes the maximum time period within which one can wait before filing a lawsuit, depending on the type of case or claim. The periods vary by state and activity and are typically broken down into categories such personal injury from negligence, property damage, and breach of contract.
Statute of repose. A statute of repose is a special type of statute of limitation which cuts off certain legal rights measured from an event other than the injury which may give rise to a lawsuit. For example, a statute of repose applying to professional engineering design services may cut off legal rights for inadequate design of a house or other structure measured from the date design plans are submitted to a landowner rather than the date the structure collapses in a flood.

Tort. A tort is a civil wrong for which a civil suit can be brought, usually based upon common law, that injures someone. The wrong may be done willfully, negligently, or in circumstances involving strict liability but not breach of contract.

Trespass. A trespass occurs when an individual intentionally (or negligently) enters the land of another without permission. Such entry may involve physical entry by walking, motor vehicles, boats or other means. It may also involve the diversion of or increasing the flow of water, mud, snow, ice, or other substance. Trespasses and nuisances overlap.

Unconstitutional taking. When government acquires private property and fails to “justly” compensate an owner consistent with requirements of the U.S. Constitution or a state constitution. A taking may involve the physical seizure of property. It may also involve highly restrictive regulation of property.