

MITIGATING MISERY: LAND USE AND PROTECTION OF PROPERTY RIGHTS BEFORE THE NEXT BIG FLOOD[†]

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Floods are ‘acts of God,’ but flood losses are largely acts of man.

Gilbert F. White¹

TABLE OF CONTENTS

Introduction	156
I. Federal Activities in Flood Damage Reduction and Floodplain Management	157
A. Short History of Flood Control in the United States.....	157
B. The National Flood Insurance Program	159
C. The NFIP Community Rating System	162
D. No Adverse Impact Floodplain Management	163
II. Common Law Theories of Liability for Flood Damages.....	164
III. No Adverse Impact Strategies for Protecting the Property Rights of All	170

[†] This article is dedicated to our friend and mentor, Jon Kusler, Esq., Ph.D., and to the Association of State Floodplain Managers. Dr. Kusler’s pioneering legal work served as the inspiration for this article, and helped form the foundation of much of the modern floodplain and wetland management operating across the nation today. The Association of State Floodplain Managers, through its members and staff, works daily to prevent and reduce the awful misery to individuals, communities, taxpayers, and the environment associated with the improper management of areas subject to flooding. This article incorporates and builds on previous research contained in an unpublished organizational white paper, Jon Kusler & Edward A. Thomas, No Adverse Impact and the Courts: Protecting the Property Rights of All (Nov. 2007) (prepared for the Ass’n of State Floodplain Managers), available at http://www.floods.org/pdf/ASFPM_NAI_Legal_Paper_1107.pdf.

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1. Gilbert F. White, Human Adjustment to Floods (June, 1942) (Ph.D. dissertation, University of Chicago) (on file with Department of Geography, University of Chicago).

A. NAI & the Fifth Amendment.....170
 B. Civil Rights Claims & Section 1983176
 C. Katrina-Related Litigation184
 Conclusion.....186

INTRODUCTION

In 1543, when Hernando De Soto’s expedition observed the earliest recorded significant flood of the Mississippi River, they noted that the indigenous communities “built their houses on the high land, and where there is none, they raise mounds by hand and here [took] refuge from the great flood.”² Human settlement patterns tracked inland water courses, coasts, and natural ports as avenues for trade and transportation,³ setting the stage for flooding to become the most widespread and destructive hazard in the United States today.⁴

For more than thirty years, the National Flood Insurance Program (NFIP) has provided federal guidance to local jurisdictions working to manage floodplain development.⁵ As a result, land use and other development review standards adopted by more than 20,000 communities across the country are saving the nation more than “\$1.1 billion a year in prevented flood damages.”⁶ Even so, in the last century flood damages in the United States have increased fourfold, approaching \$6 billion annually.⁷ Obligations through the Federal Disaster Relief Fund ballooned from \$2.8 billion in 1992 to \$34.4 billion in 2005 due to damages associated with the 2004 and 2005 hurricane seasons.⁸ Hurricane Katrina alone caused at least 1500 deaths and more than \$81 billion in property damage.⁹

The loss of life and property along with severe social and economic disruption associated with flood disasters continues to occur despite, and

2. CHAMP CLARK, PLANET EARTH: FLOOD 65 (1982).
 3. GERALD E. GALLOWAY ET AL., INTERAGENCY FLOODPLAIN MGMT. REVIEW COMM., SHARING THE CHALLENGE: FLOODPLAIN MANAGEMENT INTO THE 21ST CENTURY 37–42 (1994), available at <http://eros.usgs.gov/sast/2P-00526.pdf>.
 4. U.S. GOV’T ACCOUNTABILITY OFFICE, GAO-07-403, NATURAL HAZARD MITIGATION: VARIOUS MITIGATION EFFORTS EXIST, BUT FEDERAL EFFORTS DO NOT PROVIDE A COMPREHENSIVE STRATEGIC FRAMEWORK 11 (2007).
 5. National Flood Insurance Act of 1968, 42 U.S.C. §§ 4001–4129 (2000).
 6. Michael Buckley, Acting Deputy Dir., Mitigation Div., Fed. Emergency Mgmt. Agency, Remarks at the 60th Interdepartmental Hurricane Conference (Mar. 20–24, 2006), available at http://www.ofcm.gov/ihc06/linking_file_ihc06.htm.
 7. U.S. GOV’T ACCOUNTABILITY OFFICE, *supra* note 4, at 12.
 8. *Id.* at 7.
 9. NAT’L OCEANIC AND ATMOSPHERIC ADMIN., THE DEADLIEST, COSTLIEST, AND MOST INTENSE UNITED STATES TROPICAL CYCLONES FROM 1851 TO 2006, at 5 (2007).

apparently in some cases because of, billions of dollars spent on large-scale structural flood control works. While some communities and states lead the way in applying watershed-scale and nonstructural strategies to mitigate future flood damages, these initiatives are often met with resistance that can take the form of threatened or actual litigation.

The purpose of this Article is to dispel certain myths regarding the use of the Takings Doctrine in the public safety context, and to provide floodplain managers—and their lawyers—with insights regarding strategies to prevent harm, withstand legal challenge, and prepare their constituents for future floods. Part I provides background information regarding federal, state, and local initiatives to address flood damages. Part II examines the sources and application of common law liability theories associated with flood damages. Finally, Part III identifies specific mitigation strategies, reports on successfully achieved flood damage reductions, and legal liabilities associated with takings claims.

I. FEDERAL ACTIVITIES IN FLOOD DAMAGE REDUCTION AND FLOODPLAIN MANAGEMENT

A. Short History of Flood Control in the United States

The importance of managing the nation's waterways and floodplains has been long recognized. It has historically fallen to the U.S. Army Corps of Engineers (Corps) to interpret and apply federal water law consistent with Congress's intent to prevent pollution and flood damages.¹⁰ The Corps was first given authority to regulate dredging, filling, or obstructing "navigable waters" under the Rivers and Harbors Appropriation Act of 1899 (RHA).¹¹ Section 13 of the RHA, commonly known as the "Refuse Act," prohibits the unpermitted discharge of any refuse of any kind "into any navigable water of the United States, or into any tributary of any navigable water from which the same shall float or be washed into such navigable water, . . . either by ordinary or high tides, or by storms or floods."¹²

Although the early aim of the RHA was to preserve the nation's waterways for purposes of navigation,¹³ the Corps' construction program,

10. *See, e.g.*, Rivers and Harbors Appropriation Act of 1899, 33 U.S.C. § 401 (2000) (requiring plans for any "dam, or dike over or in any port, roadstead, haven, harbor, canal, navigable river, or other navigable water of the United States" to be approved by the Corps).

11. *Id.*

12. *Id.* § 407.

13. *Id.* § 403.

which dates back more than 150 years, also reflects its mission to protect lives and property from floods.¹⁴ The 1936 Flood Control Act declared flood control to be a proper federal activity, in conjunction with states and local government, in response to the “menace to national welfare” that floods had become.¹⁵ The Corps’ program emphasized major structural approaches to flood damage reduction, resulting in construction of more than 380 lakes and reservoirs and 8500 miles of levees.¹⁶ However, the Corps’ mission has evolved in recent years to provide greater emphasis on ecosystem restoration and stewardship.¹⁷

The principal federal law regulating development of wetlands and floodplains is the Federal Water Pollution Control Act, commonly referred to as the Clean Water Act.¹⁸ Section 404 of the Act provides the primary federal authority for protecting the nation’s waters from discharges that would have “an unacceptable adverse effect on municipal water supplies, shellfish beds and fishery area . . . , wildlife, or recreational areas.”¹⁹ The Corps’ regulatory program is charged with administering section 404 with oversight from the Environmental Protection Agency.²⁰

In addition to the Corps’ role overseeing structural flood control works, ecosystem restoration, and wetlands, the Water Resources Development Act of 1996 required that the state or local partner in a federal flood control project “participate in and comply with applicable Federal floodplain management and flood insurance programs.”²¹ Moreover, the local partner must develop plans to “reduce loss of life, injuries, damages to property and facilities, public expenditures, and other adverse impacts associated with flooding and to preserve and enhance natural floodplain values.”²² Thus, any community wishing to cost-share or participate in a major federal flood control project must participate in the NFIP and undertake land use planning to preserve the floodplains in their jurisdiction.

14. Flood Control Act of 1936, 33 U.S.C. § 701(a) (2000) (declaring the policy of the Act).

15. *Id.*

16. U.S. ARMY CORPS OF ENG’RS, INST. FOR WATER RES., CIVIL WORKS FLOODPLAIN MANAGEMENT INITIATIVES 2, 8 (2000), <http://www.iwr.usace.army.mil/docs/FloodplainManagement.pdf>.

17. INST. FOR WATER RES., U.S. ARMY CORPS OF ENG’RS, ENVIRONMENT: RIVERS, LAKES, WETLANDS, COASTS 2–3 (2003), <http://www.iwr.usace.army.mil/docs/environment.pdf>.

18. Federal Water Pollution Control Act, 33 U.S.C. §§ 1251–1387 (2000).

19. *Id.* § 1344(c).

20. *Id.* § 1344 (b)(1).

21. Water Resources Development Act of 1996, 33 U.S.C. § 701b-12(a) (2000).

22. *Id.* § 701b-12(e)(2)(A).

B. The National Flood Insurance Program

A floodplain is any comparatively low-lying land that is subject to inundation due to the accumulation or runoff of surface waters from a waterway, lake, or coast.²³ The Federal Emergency Management Agency (FEMA) defines floodplains, for NFIP purposes, according to the frequency with which a given area will be inundated.²⁴ For example, Special Flood Hazard Areas (SFHAs) shown on Flood Insurance Rate Maps (FIRMs) are those floodplain areas that are “subject to a one percent or greater chance of flooding in any given year,” traditionally known as the “100-year-flood.”²⁵

“The National Flood Insurance Act of 1968 was enacted by Title XIII of the Housing and Urban Development Act of 1968 to provide previously unavailable flood insurance protection to property owners in flood-prone areas.”²⁶ The NFIP requires that participating communities “review all permit applications to determine whether proposed building sites will be reasonably safe from flooding.”²⁷ In addition, the flood program regulations specifically provide for states and communities to adopt and enforce standards that “exceed the minimum criteria . . . by adopting more comprehensive floodplain management regulations.”²⁸ Moreover, “any floodplain management regulations adopted by a State or a community which are more restrictive than the criteria set forth in this part are encouraged and shall take precedence.”²⁹ Identified flood-prone communities choosing not to participate in NFIP are disqualified from receiving federal flood insurance and financial assistance to mitigate flood damages.³⁰ Additionally, “if a presidential disaster declaration occurs . . . in a non-participating community, no federal financial assistance can be provided” to assist with flood recovery.³¹

One of the challenges our nation faces is the problem of externalization of the costs associated with poorly engineered or planned development. The United States provides an extensive system of disaster relief through a network of public and private programs, including the Internal Revenue

23. Adapted from definitions of “floodplain” and “flooding” under regulations of the National Flood Insurance Program, 44 C.F.R. § 59.1 (2006).

24. *Id.*

25. *Id.* (definition of “area of special flood hazard”).

26. 44 C.F.R. § 59.2.

27. 44 C.F.R. § 60.3(a)(3).

28. Criteria for Land Management and Use, 44 C.F.R. § 60.1(d).

29. *Id.*

30. Flood Mitigation Assistance, 44 C.F.R. § 78.4(b).

31. Specifically, non-participating communities are not eligible for grants under the Pre-Disaster Mitigation Grant Program or the Hazard Mitigation Grant Program. Sandra Leon & Sandy Lubin, *FEMA: Federal Disaster Relief*, 17 ABA GEN. PRAC., SOLO & SMALL FIRM DIV. MAG. 5 (2000).

Service Casualty Loss Program; FEMA Grants and direct assistance; disaster related, below market loans from the Small Business Administration; and flood insurance from the NFIP.³² The NFIP provides federally-backed flood insurance at rates less—and in some cases, far less—than actuarially-based premiums.³³ Critics argue that this arrangement artificially reduces the perception of risk associated with occupying floodplains, while spreading the costs of catastrophic floods among all U.S. taxpayers.³⁴ A recent report from the Georgetown Environmental Law and Policy Institute singles out the NFIP as “a public policy disaster, both because of the burden it has imposed on the federal taxpayer and because it has failed to stem the tide of development in hazardous floodplains.”³⁵ Despite errors in the author’s assumptions about the NFIP,³⁶ the federal flood insurance program intended to “provide the necessary funds promptly to assure rehabilitation or restoration of damaged property to pre-flood status,”³⁷ and not to federalize the nation’s floodplains.

Some knowledgeable observers have noted that the NFIP is one of the only federal programs that encourages land use planning to guide new

32. Edward A. Thomas, Post Disaster Reconstruction: “The Patchwork Quilt,” A Creative Strategy for Safe Post-Disaster Rebuilding 2–20 (May 31, 2007) (unpublished working draft prepared for the Ass’n of State Floodplain Managers), *available at* http://www.floods.org/pdf/Post_Disaster_Reconstruction_Patchwork_Quilt_ET.pdf.

33. U.S. GOV. ACCOUNTABILITY OFFICE, GAO-03-606T, FLOOD INSURANCE: CHALLENGES FACING THE NATIONAL FLOOD INSURANCE PROGRAM 2, 7 (2003), *available at* www.gao.gov/new.items/d03606t.pdf.

34. JUSTIN R. PIDOT, GEORGETOWN ENVT’L LAW & POL’Y INST., COASTAL DISASTER INSURANCE IN THE ERA OF GLOBAL WARMING: THE CASE FOR RELYING ON THE PRIVATE MARKET 14 (2007) [hereinafter PIDOT INSURANCE REPORT].

35. *Id.* at 7.

36. For example, although Pidot reports that “the NFIP had not suffered a catastrophic loss year prior to 2005,” *id.* at 15, this statement overlooks the enormous payouts from the flood insurance program associated with Hurricane Ivan in 2004 (more than 27,000 claims were paid, totaling more than \$1.5 billion), Tropical Storm Allison in 2001 (over 30,000 claims were paid, totaling more than \$1.1 billion), and the Louisiana flood of May 1995 (over 31,000 claims were paid, totaling more than \$585 million) to name only a few of the more catastrophic loss years for the NFIP. Fed. Emergency Mgmt. Agency, Significant Flood Events 1978 to Jan. 31, 2008, *available at* <http://www.fema.gov/business/nfip/statistics/sign1000.shtm>. Additionally, Pidot fails to address the following points: (a) “FEMA reports the [NFIP] has been self-supporting for 20 years”; (b) other, more expensive subsidies for the occupancy of hazardous locations exist, such as federal tax deductions for casualty losses, Small Business Admin. (SBA) loans, Dep’t of Housing and Urban Development (HUD) special CDBG Appropriations; and (c) there is a cornucopia of other post-disaster subsidy programs described in Thomas, *supra* note 32, at 2–20.

37. S. REP. NO. 90-549, at 4–5 (1967); *see also*, H. REP. NO. 90-786, at 10 (1967) (stating one objective is “to help victims of flood damage to restore their homes and businesses”).

development away from flood-prone areas.³⁸ A conflict arises because, although the federal government administers the NFIP, land use and development decisions are made at the state and local level.³⁹ The NFIP was designed so that the floodplain management mission would be carried out at the state and local levels.⁴⁰ Local communities are given minimal guidelines on how to plan for local infrastructure, permit development, and administer permit programs.⁴¹ Thus, the NFIP provides the major federal land use regulatory regime, but the authority to enact floodplain zoning is contained in the states' "general grant of power to zone for the public health, safety, and welfare."⁴² Local officials, who make land use decisions, often rely on development to increase tax revenue and may not always be as concerned about regulating to prevent comparatively rare flood events as they are about increasing the property tax base. Since the property owner, the NFIP, and the federal taxpayer pay for mistakes in these decisions, and the decision-making local government and developers receive the benefits of development, a fundamental problem of externality results.

The NFIP has proven to be one of the most cost-effective hazard mitigation programs in history, saving the nation more than \$1 billion in flood losses annually, preventing untold misery to disaster victims, and damage to the environment.⁴³ Throughout the thirty-year history of the NFIP, many communities have often relied on its minimum requirements to set floodplain development criteria, and frequently adopted and enforced these standards grudgingly. Even so, more than 20,000 communities have joined the NFIP and implemented local standards to reduce flood losses.⁴⁴

However, the minimum NFIP standards do not prohibit diversion of floodwaters onto other properties, nor do they prevent the loss of channel

38. Lewis E. Link, *Katrina Policy Lessons Learned: Coping with Change is a Risky Business*, National Wetlands Newsletter, Sept.-Oct. 2007, at 20; see also FED. EMERGENCY MGMT. AGENCY, FINAL REPORT: EVALUATION OF THE NATIONAL FLOOD INSURANCE PROGRAM 6 (2006), available at <http://www.fema.gov/business/nfip/nfipeval.shtm>.

39. 44 C.F.R. § 60.2 (2005).

40. *Id.*

41. *Id.* § 60.3.

42. *Turnpike Realty Co. v. Town of Dedham*, 284 N.E.2d 891, 901 (Mass. 1972).

43. CAMILO SARMIENTO & TED R. MILLER, AM. INST. FOR RESEARCH, COSTS AND CONSEQUENCES OF FLOODING AND THE IMPACT OF THE NATIONAL FLOOD INSURANCE PROGRAM 8 (2006), <http://www.fema.gov/library/viewRecord.do?id=2577>. In the personal opinions of the Authors the NFIP is the most cost effective program of harm prevention and disaster mitigation in history.

44. FRENCH WETMORE ET AL., AM. INST. FOR RESEARCH, FINAL REPORT: AN EVALUATION OF THE NATIONAL FLOOD INSURANCE PROGRAM 12 (2006), available at <http://www.fema.gov/library/viewRecord.do?id=2573>; FEMA: Myths and Facts About the NFIP, <http://www.fema.gov/business/nfip/myth.shtm> (stating 20,000 communities have joined the program) (last visited Mar. 28, 2008).

conveyance and storage or increases in erosive velocities.⁴⁵ As a result, communities that manage floodplain development based solely on the minimum standards of the NFIP perform some valuable regulation, but do allow development to encroach and constrict the floodplains, subjecting property owners and downstream neighbors to greater flood frequency and severity than would result had the entire floodplains been left to convey flood waters.⁴⁶

C. *The NFIP Community Rating System*

The NFIP Community Rating System (CRS) provides incentives and strategies to promote even safer development practices than those required by the minimum standards for participation in the NFIP.⁴⁷ Participating communities receive ratings based on their floodplain management program; the more robust the program and better the rating, the greater reduction in flood insurance premiums available to policyholders in that community.⁴⁸ Credited activities are designed to improve public safety, reduce damage to property and public infrastructure, avoid economic disruption and losses, reduce human suffering, and protect the environment.⁴⁹ Activities can be grouped into four categories: public information, mapping and regulation, flood damage reduction, and flood preparedness.

More than 1000 communities participate in the CRS today, providing 66% of all NFIP policyholders with premium discounts and the benefits of living in communities better prepared to weather their next flood.⁵⁰ Moreover, communities that participate in the CRS have an increased incentive to maintain their flood programs and to preserve their NFIP discounted insurance policies, since a community's CRS status would be

45. See 44 C.F.R. § 60.3(d) (allowing significant modifications to the hydrologic profile resulting in increased velocities, loss of valley storage and erosion).

46. See Larry Larson & Doug Plasencia, *No Adverse Impact: New Direction in Floodplain Management Policy*, 2 NAT. HAZARDS REV. 167, 171 (2001) (“[M]ost communities do little more than comply with the minimal standards of the NFIP, leading to the creation of increased future flood losses.”).

47. Fed. Emergency Mgmt. Agency, Community Rating System Resources System, <http://training.fema.gov/EMIWeb/CRS> (last visited Mar. 3, 2008).

48. FED. EMERGENCY MGMT. AGENCY, OMB NO. 1660-0022, NATIONAL FLOOD INSURANCE COMMUNITY RATING SYSTEM COORDINATOR'S MANUAL, 110-11 (2007), available at www.fema.gov/library/viewRecord.do?id=2434.

49. *Id.*

50. ASS'N OF STATE FLOODPLAIN MANAGERS, NATIONAL FLOOD PROGRAMS AND POLICIES IN REVIEW 19 (2007).

affected by the elimination of a hazard mitigation activity or a weakening of the regulatory requirements for new development.

D. No Adverse Impact Floodplain Management

In addition to the NFIP and the CRS, No Adverse Impact (NAI) floodplain management provides tools for flood-prone communities. The NAI help to ensure a higher level of protection for citizens and to prevent future flood damage. NAI is a managing principle developed by the Association of State Floodplain Managers (ASFPM) to augment the typical local floodplain management program.⁵¹ NAI floodplain management is an approach that ensures the action of any community or property owner, public or private, does not adversely impact the property and rights of others.⁵² Adverse impact can be “measured by an increased flood peak, flood stages, flood velocity, and erosion and sedimentation,” as well as degradation of water quality and increased cost of public services.⁵³ NAI floodplain management extends beyond the floodplain to include managing development in the watersheds where increased runoff of storm water and floodwaters originate.⁵⁴

NAI relies on a combination of development planning, standards, and review to ensure that proposed and anticipated development will not adversely impact other property interests through increased runoff, velocities, or degradation. Since each community is unique, NAI provides the flexibility to adapt strategies to fit community interests, watershed dynamics, political will, vision, and goals. Under the NAI approach, the developer and community work together to: identify the impacts of proposed development; explore design alternatives; notify potentially impacted property owners; and develop appropriate mitigation measures that are acceptable to the local government and community. NAI, with the support of incentives through the CRS program, is designed to provide some incentive to address the fundamental problem of externality described above.

51. Jon Kusler & Edward A. Thomas, *No Adverse Impact and the Courts: Protecting the Property Rights of All* 33–36 (Nov. 2007) (unpublished white paper prepared for the Ass’n of State Floodplain Managers).

52. *Id.*

53. *Id.*

54. *Id.* at 6–7.

II. COMMON LAW THEORIES OF LIABILITY FOR FLOOD DAMAGES⁵⁵

As population has increased, men have not only failed to devise means for suppressing or for escaping this evil of floods, but have a singular short-sightedness, rushed into its chosen paths.

William John McGee, *The Floodplains of Rivers*, 1891⁵⁶

Floods are one of the most common and costly natural hazards in the United States. When flooding or erosion damages property, owners may consider suing developers whose projects may have created local drainage or erosion problems. Property owners may sue the community that permitted development, alleging that the impacts of flooding or erosion were more severe than would otherwise have occurred without the development.⁵⁷ At common law, the maxim *sic utere tuo ut alienum non laedes* teaches that no landowner has the right to use her land in a manner that injures the property of others.⁵⁸ Activities associated with development that may increase runoff and exacerbate flood damages include grading, placement of fill, stream modifications (such as dams, dikes, channelization, and levees), and other land or shoreline alterations that may increase flood heights and velocities.⁵⁹ In most states, landowners are not permitted to block the flow of diffused surface waters, increase that flow, or divert that flow from its natural discharge point, where doing so would substantially harm other landowners.⁶⁰ Landowners may also bring trespass actions where flooding or drainage problems manifest a physical invasion onto their property.⁶¹ Courts apply these standards, where applicable, to both private and public defendants, and have even held governments to more stringent standards of care.⁶²

55. Portions of this section are adapted from Kusler & Thomas, *supra* note 51.

56. W.J. McGee, *The Floodplains of Rivers*, XI THE FORUM 221 (1891).

57. Kusler & Thomas, *supra* note 51, at 4.

58. *See, e.g., Sandifer Motor, Inc. v. City of Rodland Park*, 628 P.2d 239, 242–44 (Kan. 1981) (holding that flooding due to city dumping of debris into a ravine that blocked sewer system was a nuisance).

59. Kusler & Thomas, *supra* note 51, at 10, 15–16.

60. *Id.* at 10.

61. *See, e.g., Musumeci v. State*, 43 A.D.2d 288, 291 (N.Y. App. Div. 1974) (“It is plain, however, that liability imposed for interfering with diffused surface water is a tort liability.”).

62. *See, e.g., Wilson v. Ramacher*, 352 N.W.2d 389, 394 (Minn. 1984) (finding that a local government that diverts water as part of a drainage project is liable for damage caused by that diversion of waters since it is acting not as a property owner, but in the exercise of sovereign authority).

Under a negligence theory, those who undertake flood control methods may be liable for the incorrect design of structures that reduce flood damage, ineffective flood warning systems, and defective inspections and permitting.⁶³ The government may be liable for damages due to insufficient lateral support that resulted from the construction of roads, bridges, and other public projects.⁶⁴ In some states, statutes have been enacted which create a separate legal action. For example, section 11.086 of the Texas Water Code has made it illegal to change the natural flow of water in a way that damages other people's property.⁶⁵

Successful liability suits based upon natural hazards have become increasingly expensive to governments, not only because of the increasing awards for flood and erosion damages, but because of increasing attorney fees, expert witness fees, and court costs. For example, in *City of Watauga v. Tayton*, the trial court awarded only \$3000 for damages to a home flooded by city actions and \$6800 for destruction of personal property and fixtures.⁶⁶ However, the court also awarded \$19,500 for mental anguish and \$15,000 for attorney's fees, more than three and one half times the amount of the physical damages.⁶⁷ In *West Century 102 Ltd. v. City of Inglewood*, the court awarded a judgment of \$2.4 million against the city for water damage, including \$493,491 in attorney's fees.⁶⁸

63. See, e.g., *Kunz v. Utah Power & Light Co.*, 526 F.2d 500, 504–05 (9th Cir. 1975) (finding that undertaking flood control efforts and “materially alter[ing] . . . water-flow patterns . . . establish[es] a relationship” and creates a duty to try to control floods).

64. Cf. *Blake Constr. Co. v. United States*, 585 F.2d 998 (Ct. Cl. 1978) (holding that the U.S. Government would be liable for “reasonably anticipated and foreseeable . . . damages to structures on adjacent land that result from negligence of [hired] independent contractor in excavating [Government’s] land if adjacent building shares party walls with building of its excavating neighbor”) (emphasis added).

65. TEX. WATER CODE § 11.086 (Vernon 2007). See *Miller v. Letzerich*, 49 S.W.2d 404, 407 (Tex. 1932), for an early application finding violation of TEX. STAT. ANN. art. 7589a (Supp. 1930), which reads:

That it shall hereafter be unlawful for any person, firm or private corporation to divert the natural flow of the surface waters in this State or to permit a diversion thereof caused by him to continue after the passage of this Act, or to impound such waters, or to permit the impounding thereof caused by him to continue after the passage of this Act, in such a manner as to damage the property of another, by the overflow of said water so diverted or impounded, and that in all such cases the injured party shall have remedies, both at law and equity, including damages occasioned thereby.

Id.

66. *City of Watauga v. Tayton*, 752 S.W.2d 199, 201 (Tex. 1988).

67. *Id.* at 201.

68. *West Century 102 Ltd. v. Inglewood*, No. B131421, 2002 WL 1065261, at *4 (Cal. App. May 29, 2002).

Modern courts have adopted the rule of “reasonable use.” The “reasonable use” doctrine works to avoid the constraints of the “common-enemy” doctrine and to determine the rights of the parties by considering all the relevant factors, as the controlling principle in determining rights with respect to interference with the drainage of surface waters.⁶⁹ The rule of “reasonable use” requires landowners to act reasonably in consideration of how drainage modifications may affect other landowners.⁷⁰ Generally, any drainage modification that increases the flows, erosive velocities, or heights of surface waters could be found to be unreasonable and subject the landowner who caused the modifications to liability.⁷¹

As engineering models of floods and hazard mapping have improved, flood events may become more legally foreseeable.⁷² Advances in hazard-loss reduction measures create an increasingly high standard of care for reasonable conduct. As technology advances, so too must the techniques and approaches of engineers and others, because their reasonableness is judged by the advancements of the profession. As the techniques for reducing flood and erosion losses are disseminated through magazines, technical journals, and reports, the concept of “region” may have been broadened to the point of a national standard for determining “reasonableness.”⁷³

In the past, landowners may have had difficulty proving that activities on adjacent lands increased the risk of flooding damages. Proving fault was challenging because the flooding could have been the result of aggregating factors on neighboring lands. However, current hydrologic and hydraulic modeling techniques can prove causation and allocate fault more exactly, although actual proof may still pose a challenge.⁷⁴ As a result of increasingly documentable foreseeability of flooding, most natural hazard

69. *Butler v. Bruno*, 341 A.2d 735, 739 (R.I. 1975).

70. *See, e.g., County of Clark v. Powers*, 611 P.2d 1072, 1075 (Nev. 1980) (“[A] landowner may make reasonable use of his land as long as he does not injure his neighbor.”).

71. *See, e.g., Lombard Acceptance Corp. v. San Anselmo*, 114 Cal. Rptr. 2d 699, 708 (App. 2001) (granting an injunction against a town for unreasonable increases in surface water which caused a landslide).

72. *See, e.g., Barr v. Game, Fish & Parks Comm’n*, 497 P.2d 340, 344 (Col. Ct. App. 1972) (“The trial court found that by modern meteorological techniques defendant could have foreseen this storm.”).

73. *See, e.g., Jon Kusler, Professional Liability for Construction in Flood Hazard Areas* 6–8 (Ass’n of State Floodplain Managers, 2007), available at http://www.floods.org/pdf/ASFPM_Professional_Liability_Construction.pdf.

74. *See, e.g., Souza v. Silver Dev. Co.*, 210 Cal. Rptr. 146, 149 (1985) (stating that proof may be difficult in circumstances involving more than one party because “there must be a showing of ‘a substantial cause-and-effect relationship excluding the probability that other forces *alone* produced the injury’”) (citations omitted).

related liability suits against governments result from flood or drainage damages.⁷⁵

Courts have held that after a government unit chooses to act, even when there is no affirmative duty to take such action, the government unit must exercise reasonable care.⁷⁶ As recently as 1993, the State of Missouri abrogated the “common enemy” doctrine in no uncertain terms in *Heins Implement v. Missouri Highway & Transp. Comm’n*, stating:

The principal issue raised by this appeal is whether the modified common enemy doctrine should be applied to bar recovery by landowners and tenants whose property was flooded because a culvert under a highway bypass was not designed to handle the normal overflows from a nearby creek. We conclude that the common enemy doctrine no longer reflects the appropriate rule in situations involving surface water runoff and adopt a doctrine of reasonable use in its stead.⁷⁷

On the other hand, Arizona reaffirmed that the “common enemy” doctrine was still in effect as recently as 1989 in *White v. Pima County*:

Arizona follows the common enemy doctrine as it applies to floodwaters. Under this doctrine a riparian owner may dike against and prevent the invasion of his premises by floodwaters. If, thereby the waters which are turned back damage the lands of another, it is a case of *damnum absque injuria*. This common enemy doctrine was not abrogated by the floodplain statutes is available to those who comply with or are exempt from the floodplain regulations, and is likewise available to a condemning authority when it is protecting its property like any other riparian owner.⁷⁸

Courts have considered a variety of factors in determining the reasonableness of actions that result in drainage modifications of surface waters. Where severe harm may result from an action, the reasonable

75. See, e.g., *Coates v. United States*, 612 F. Supp. 592, 599 (C.D. Ill. 1985) (holding the federal government liable for failure to give adequate flash flood warning to campers in Rocky Mountain National Park and to develop an adequate emergency management plan); *Barr*, 497 P.2d at 344 (finding the “act of God” defense inapplicable because of the foreseeability of the hazard.).

76. See, e.g., *Indian Towing v. United States*, 350 U.S. 61, 69 (1955) (stating that once the Coast Guard undertook operation of a lighthouse it “was obligated to use due care”).

77. *Heins Implement v. Highway & Transp. Comm’n*, 859 S.W.2d 681, 683 (Mo. 1993).

78. *White v. Pima County*, 775 P.2d 1154, 1160 (Ariz. Ct. App. 1989).

person must exercise great care.⁷⁹ Custom often drives what is considered reasonable, so evidence of usual or customary conduct has been found to be relevant and admissible.⁸⁰ Even so, liability arises only for harms that the reasonable person knew about or could have reasonably foreseen.⁸¹ Moreover, an entire industry may be found liable regardless of custom.⁸² As noted by the Illinois Supreme Court in *Advincula v. United Blood Serv.*, “evidence that a defendant’s conduct conformed with local usage or general custom indicates due care, but may not be conclusive of it. Such evidence may be overcome by contrary expert testimony . . . that the prevailing *professional standard of care*, itself, constitutes negligence.”⁸³

Courts may apply the emergency doctrine, which provides for a sudden and unexpected situation.⁸⁴ When confronted with a sudden peril, the reasonable person is not held to the exercise of the same degree of care as she would be with time for careful reflection.⁸⁵ However, public officials may have a ministerial duty when existing danger is known and compelling.⁸⁶

Courts may also consider the status of the injured party and whether a special relationship exists, as between a citizen and her government. For example, some courts have held that a landowner owes reasonable care to invitees, licensees, and trespassers alike.⁸⁷ Most jurisdictions require a lesser standard of care as to trespassers.⁸⁸ However, where a special relationship creates a higher duty of care, breach of this duty creates liability. For example, the Ninth Circuit found in *Kunz v. Utah Power &*

79. See *Blueflame Gas, Inc. v. Van Hoose*, 679 P.2d 579, 587 (Colo. 1984) (noting “that the greater the risk, the greater the amount of care required to avoid injury to others”).

80. See WILLIAM L. PROSSER, *LAW OF TORTS* § 34 (4th ed. 1971).

81. See, e.g., *Scully v. Middleton*, 751 S.W.2d 5, 6 (Ark. 1988).

82. See generally *The T.J. Hooper*, 60 F.2d 737 (2d Cir. 1932) (finding tug boat companies liable for failing to provide proper weather radios, despite the fact that the tug industry lacked a trade custom of providing such radios).

83. *Advincula v. United Blood Serv.*, 678 N.E.2d 1009, 1027 (Ill. 1996).

84. See *Regenstreif v. Phelps*, 142 S.W.3d 1, 4 (Ky. 2004) (“The common-law doctrine of ‘sudden emergency’ attempts to explain . . . how to judge the allegedly negligent conduct of a person . . . who is suddenly confronted with an emergency situation that allows no time for deliberation.”).

85. *Id.*

86. See, e.g., *Lodl v. Progressive N. Ins. Co.*, 646 N.W.2d 314, 321 (Wis. 2002) (“There is no immunity against liability associated with . . . known and compelling dangers that give rise to ministerial duties on the part of the public officers or employees.”).

87. See, e.g., *Sheets v. Ritt, Ritt & Ritt, Inc.*, 581 N.W.2d 602, 604 (Iowa 1998) (citing jurisdictions that do not distinguish trespassers).

88. See, e.g., *Rice v. Sabir*, 979 S.W.2d 305, 308 (Tenn. 1998) (finding an owner “has a duty to exercise reasonable care with regard to social guests or business invitees on [her] premises”); *Mallet v. Pickens*, 522 S.E.2d 436, 446 (W. Va. 1999) (“[A] landowner or possessor need only refrain from willful or wanton injury.”).

Light Co. that a utility operating a lake breached its duty to provide flood control upon which downstream property owners had come to rely.⁸⁹

Lastly, statutes, ordinances, and other regulatory measures often impose particular duties on the governments charged with their execution or implementation.⁹⁰ Moreover, violation of a regulation creates the presumption of negligence,⁹¹ and may also be relevant to arguments of nuisance and trespass.⁹² For example, the Oklahoma Supreme Court found in *Boyles v. Oklahoma Natural Gas Co.* a negligence per se violation—the harm was the sort the ordinance was intended to prevent and the injured party was among the class of people the ordinance was intended to protect.⁹³ Moreover, although violation of an ordinance creates the presumption of negligence, compliance with that ordinance does not preclude action.⁹⁴

Generally, barring some statutorily created requirement, governments have no duty to adopt regulations, and incur no liability from failing to do so.⁹⁵ However, legislatures in many states have enacted statutes requiring local governments to adopt at least the minimal NFIP standards.⁹⁶ Thus, where the State Legislature has required local governments to manage floodplain development, failure to do so creates the basis for liability and a finding of negligence.⁹⁷

Most courts have found governmental entities to be immune from liability for the issuance or denial of building permits because development

89. *Kunz v. Utah Power & Light Co.*, 526 F.2d 500, 504 (9th Cir. 1975).

90. *See, e.g., Hundt v. LaCrosse Grain Co.*, 425 N.E.2d 687, 695 (Ind. Ct. App. 1981) (finding that the plaintiff “was entitled to rely on any applicable regulations”).

91. *Boyles v. Okla. Natural Gas Co.*, 619 P.2d 613, 618 (Okla. 1980).

92. *See, e.g., Tyler v. Lincoln*, 527 S.E.2d 180, 182 (Ga. 2000) (seeking punitive damages and attorney fees under state law in a nuisance and trespass case).

93. *Boyles*, 619 P.2d at 618.

94. *See, e.g., Corley v. Gene Allen Air Serv., Inc.*, 425 So.2d 781, 784 (La. Ct. App. 1983); *Oak Leaf Country Club, Inc. v. Wilson*, 257 N.W.2d 739, 746 (Iowa 1977) (holding that mere approval by a state administrative agency does not preclude judicial relief to a riparian owner where otherwise indicated by circumstances calling for invocation of aforementioned principles).

95. In *Hinnigan v. State*, 94 A.D.2d 830, 831 (N.Y. App. Div. 1983), the New York appellate court held that the State of New York was not liable for failing to assure the participation of towns in the NFIP and, similarly, that the town of Jewett was not liable for failing to participate in and meet the minimum standards of the NFIP, which would make federally-backed flood insurance available in the town. *See also Urban v. Vill. of Inverness*, 530 N.E.2d 976 (Ill. App. Ct. 1988) (holding that village did not have an affirmative duty to prevent flooding through the adoption and enforcement of regulations on development). *But cf. Sabina v. Yavapai County Flood Control Dist.*, 993 P.2d 1130, 1135 (Ariz. Ct. App. 1999) (flood control district might be liable for failing to regulate floodplain development).

96. *County of Ramsey v. Stevens*, 283 N.W. 2d 918, 924–25 (Minn. 1979).

97. *See, e.g., Natural Res. Def. Council, Inc. v. N.Y. State Dep’t of Env’tl. Conservation*, 700 F. Supp. 173, 181 (S.D.N.Y. 1987) (holding State liable for failing to adopt regulations as required).

review and permit issuance is a discretionary function.⁹⁸ Although, this immunity may extend to local government inspections, some courts have found negligence in certain instances.⁹⁹

III. NO ADVERSE IMPACT STRATEGIES FOR PROTECTING THE PROPERTY RIGHTS OF ALL

As of yet there are no adequate engineering plans for the prevention of floods and for the associated utilization of excess water. . . . If the floods have taught us anything, it is the need of something more than a dam here and a storage reservoir there. We must think of drainage areas embracing the whole country.

Editorial, *After the Deluge*¹⁰⁰

A. NAI & the Fifth Amendment¹⁰¹

The Fifth Amendment to the U.S. Constitution, and similar provisions in state constitutions, prohibits governmental units from taking private property without payment of just compensation.¹⁰² Courts have held that unconstitutional takings may occur in two principal flood hazard contexts.

The first occurs when a governmental unit increases flood or erosion damage on other lands through fills, grading, construction of levees, channelization, or other activities as discussed. The second occurs when the governmental unit adopts regulations that deprive a property owner of all economic value, particularly where the regulation serves no clearly established public purpose. In such situations landowners sometimes claim “inverse condemnation” of their lands. However, very few of these suits

98. See, e.g., *Wilcox Assoc. v. Fairbanks North Star Borough*, 603 P.2d 903, 905 (Ala. 1979) (“A majority of the federal decisions involving government tort liability for negligence in granting permits and licenses have held the decision to be discretionary functions.”).

99. See, e.g., *Radach v. Gunderson*, 695 P.2d 128, 130 (Wash. Ct. App. 1985) (holding the city was liable for expense of moving an oceanfront house that failed to meet the zoning setback, but was constructed pursuant to a permit issued by city, which was aware of the violation during construction); *State v. Outagamie County Bd. of Adjustment*, No. 94-2353, 1995 Wisc. App. LEXIS 258, *6-8 (Wisc. Ct. App. Feb. 28, 1995) (finding a successful suit by the State of Wisconsin, which sued a local board of adjustment for exceeding its authority in issuing a variance that allowed construction of a residence in the floodway).

100. Editorial, *After the Deluge*, N. Y. TIMES, Mar. 22, 1936, at E8.

101. Portions of this section are adapted from Kusler & Thomas, *supra* note 51.

102. U.S. CONST. amend. V.

have succeeded where communities expressed the public safety benefit of the regulation.

There have been only a handful of successful challenges to floodplain regulations as a taking. Those few cases invariably involved the nearly complete prohibition of building on property having no clearly demonstrated unique or quasi-unique hazard associated with the sites in question. While hundreds of cases have upheld hazard-based regulations, fewer than a dozen appellate cases have found similar regulations to result in an unconstitutional taking of private property. As we shall see, the trend in the courts is to sustain government regulation of hazardous activities for the prevention of harm.

Nevertheless, local governments are often concerned about the possibility of a successful takings challenge to their regulations. These concerns stem from misreading several Supreme Court decisions over the last decade. These decisions, addressing regulations of natural hazard areas, suggest local and state regulations may constitute a taking in certain, very narrow and easily avoidable circumstances. However, all of these decisions expressed overall support of hazard-based regulation.

The U.S. Supreme Court recently issued a ruling in the case of *Lingle v. Chevron U.S.A Inc.*¹⁰³ The Court's unanimous opinion sets forth four ways to pursue a regulatory taking cause of action¹⁰⁴:

1. Physical invasion—as in *Loretto v. Teleprompter Manhattan CATV Corp.*¹⁰⁵ The *Loretto* case involved a New York City requirement that all residential buildings must permit a cable company to install cables and a cable box the size of a cigarette pack.¹⁰⁶ The Court held that any physical invasion must be considered a taking.¹⁰⁷
2. The total or near-total regulatory taking—as exemplified by *Lucas v. South Carolina Coastal Council*.¹⁰⁸ In that case, the plaintiff was prohibited from building on the only vacant lots left on an otherwise fully developed barrier beach just outside Charleston, South Carolina.¹⁰⁹ In 1988, the State enacted the

103. *Lingle v. Chevron U.S.A. Inc.*, 544 U.S. 528 (2005).

104. *Id.* at 548.

105. *Loretto v. Teleprompter Manhattan CATV Corp.*, 458 U.S. 419 (1982).

106. *Id.* at 421.

107. *Id.*

108. *Lucas v. S.C. Coastal Council*, 505 U.S. 1003, 1009 (1992).

109. *Id.*

Beachfront Management Act, which prevented the landowner from building any permanent habitable structures on his two parcels.¹¹⁰ The landowner asserted the effect of the Act on the value of the lots constituted a taking under the Fifth and Fourteenth Amendments.¹¹¹

3. A significant, but not nearly total taking—exemplified in *Penn Central Transportation Co. v. New York City*.¹¹² In that case, the Penn Central Company was not permitted to build above Grand Central Station in New York City to the full height permitted by the overlay zoning in the area because of Historic Preservation reasons, but was provided transferable development rights, which therefore left considerable value to the owner in the air rights in dispute. The Court used a three part test: (a) economic impact, (b) regulatory influences on “investment-backed expectations,” and (c) character of the government action.¹¹³
4. Land use exactions that are not really related to the articulated government interest—as in *Nollan v. California Coastal Comm’n*.¹¹⁴ In that case, the California Coastal Commission conditioned a permit to expand an existing beachfront home provided that the owner grant an public easement to cross his land.¹¹⁵ The articulated government interest was that the lateral expansion of the home would reduce the amount of beach and ocean the public on the roadside of the home could see, as well as reduce public access to and along the shorefront.¹¹⁶ The Court indicated that preserving public views from the road really did not have an essential nexus with allowing the public to cross a beach.¹¹⁷

In *Lingle*, the Court indicated that it would no longer use the first part of the two-part test for determining a taking set forth in *Agins v. City of Tiburon*: whether the regulation (a) substantially advances a legitimate state

110. *Id.* at 1006.

111. *Id.* at 1009.

112. *Penn Cent. Transp. Co. v. New York City*, 438 U.S. 104 (1978).

113. *Id.* at 124, 125–38.

114. *Nollan v. Cal. Coastal Comm’n*, 483 U.S. 825 (1987).

115. *Id.* at 829.

116. *Id.*

117. *Id.* at 836–37.

interest and (b) denies owner an economically viable use of land.¹¹⁸ The removal of this “substantially advances a legitimate state interest” prong of a takings test is a boon to floodplain managers and communities working to incorporate NAI principles. In essence, the question of whether an action by a legislative body “substantially advances a legitimate state interest” had provided a mechanism for judicial second-guessing of the relative merits of legislative action. The Supreme Court signaled that it will defer to legislative decisions unless there is no real relationship between what the legislative body desires and the action taken, or there is some other due process or equal protection issue.¹¹⁹ This clear statement by the nation’s highest court supports both the principles of the NFIP and NAI-based floodplain and stormwater management. Both the NFIP and NAI seek to require the safe and proper development of land that is subject to a natural hazard. Neither the NFIP nor NAI floodplain and stormwater management require or support government regulations which would oust people from their property. Previously, in *San Antonio River Authority v. Garrett Bros.*, a Texas court expounded on the importance of local police powers:

It is clear that in exercising the police power, the governmental agency is acting as an arbiter of disputes among groups and individuals for the purpose of resolving conflicts among competing interests. This is the role in which government acts when it adopts zoning ordinances, enacts health measures, adopts building codes, abates nuisances, or adopts a host of other regulations. When government, in its roles as neutral arbiter, adopts measures for the protection of the public health, safety, morals or welfare, and such regulations result in economic loss to a citizen, a rule shielding the agency from liability for such loss can be persuasively defended, since the threat of liability in such cases could well have the effect of deterring the adoption of measures necessary for the attainment of proper police power objectives, with the result that only completely safe, and probably ineffective, regulatory measures would be adopted.¹²⁰

In *Gove v. Zoning Board of Appeals*, the Town of Chatham zoned several areas, including its Special Flood Hazard Areas, in such a way that a

118. *Lingle v. Chevron U.S.A. Inc.*, 544 U.S. 528 (2005) (citing *Agins v. City of Tiburon*, 447 U.S. 255 (1980)).

119. *Id.* at 547–48.

120. *San Antonio River Auth. v. Garrett Bros.*, 528 S.W.2d 266, 273–74 (Tex. App. 1975).

variance would be required before building took place.¹²¹ Gove sold a 1.8-acre parcel of land on the condition that a building permit for a single-family home would be issued.¹²² The Town declined to issue the permit, and Gove sued, alleging a taking.¹²³ In this decision, Massachusetts' highest court emphasized that the Town of Chatham had identified unique hazards on this erosion-prone coastal A-Zone property.¹²⁴ The court found that the plaintiffs had not sufficiently shown that they could construct a home in this area without potentially causing harm to others.¹²⁵ The Town made a good case that this was not just any A-Zone property in a Special Flood Hazard Area.¹²⁶ It is on the coast adjacent to the V-Zone, in an area which has experienced major flooding, and is now exposed to the open ocean waves due to a breach in a barrier beach just opposite the site.¹²⁷ Further, it is subject to accelerated "normal" erosion, and storm related erosion.¹²⁸

The 1991 storm flooded the area around lot 93 [Gove's parcel] to a depth of between seven and nine feet above sea level, placing most, if not all, of the parcel underwater. The 1944, 1954, and 1991 storms, while significant, were less severe than the hypothetical "hundred year storm" used for planning purposes, which is projected to flood the area to a depth of ten feet. According to another expert called by Gove . . . , during storms, roads in Little Beach can become so flooded as to be impassable even to emergency vehicles, and access to the area requires "other emergency response methods," such as "[h]elicopters or boats." The same expert conceded that, in an "extreme" event, the area could be flooded for four days, and that, in "more severe events" than a hundred year storm, storm surge flooding in Little Beach would exceed ten feet.¹²⁹

The court upheld the regulations and unequivocally affirmed local interests in preventing harm and protecting the property rights of all.¹³⁰ This

121. *Gove v. Zoning Bd. of Appeals*, 831 N.E.2d 865 (Mass. 2005).

122. *Id.* at 867.

123. *Id.*

124. *Id.* at 871-75.

125. *Id.*

126. *Id.*

127. *Id.*

128. *Id.*

129. *Id.* at 868.

130. *Id.* at 875.

decision by the Massachusetts Supreme Judicial Court validates and supports the NFIP, the concept of No Adverse Impact floodplain, and stormwater management, as well as hazards-based regulation in general. While the decision is binding only on Massachusetts courts, it should have a persuasive effect in other jurisdictions.

In the important case *In re Woodford Packers Inc.*, the Vermont Supreme Court reviewed a challenge to a state regulation that established a methodology—based on fluvial erosion for the designation of floodways—much broader than the FEMA minimum standard.¹³¹ This case is a huge win for sensible NAI-type regulation based on local conditions and applied to all property owners equally based on the application of a standard methodology to an individual property.

Floodplain managers breathed a collective sigh of relief when the New Jersey Supreme Court reversed and remanded a lower court ruling that a denial of a permit for floodway development was a taking in *Mansoldo v. State*.¹³² To date, the authors have been unable to discover any case in this country that reached such a conclusion and involved a floodway. Such a determination could be enormously detrimental to floodplain management and to the fundamental principles of the NFIP.

Courts have upheld, against takings claims, a broad range of regulations designed to stabilize flood risk beyond the minimum standards set forth under the NFIP. For example, in *Hansel v. City of Keene* the New Hampshire Supreme Court considered whether the city's "no significant impact" standard intended to prevent development unless it could be demonstrated "that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevations of the base flood at any point within the community."¹³³ In upholding the regulation, the court observed that the floodplain ordinance revealed "an understandable concern among city officials that any water surface elevation increase in the floodplain could, at minimum, strain city resources and impose unnecessary hardship on city residents."¹³⁴

This case could be used by floodplain managers when considering whether to issue permits for structures in the floodway, where engineers have submitted "no-rise" certification. Such certification is often done considering only the proposed structure, not appropriately considering "that the cumulative effect of the proposed development, when combined with all

131. See *In re Woodford Packers Inc.*, 830 A.2d 100, 104, 107 (Vt. 2003).

132. *Mansoldo v. State*, 898 A.2d 1018, 1018–19 (N.J. 2006).

133. *Hansel v. City of Keene*, 634 A.2d 1351, 1352 (N.H. 1993).

134. *Id.* at 1354.

other existing and anticipated development, will not increase the water surface elevations of the base flood . . . at any point within the community.”¹³⁵

B. Civil Rights Claims & Section 1983

A 42 U.S.C. § 1983 claim provides a vehicle for seeking redress for an alleged deprivation of a litigant’s federal constitutional and federal statutory rights by an official’s abuse of position.¹³⁶ Landowners and developers may use § 1983 to elevate a claim to federal court, requiring local officials to defend their ordinances or permitting decisions in venues often hundreds of miles away.¹³⁷

To establish a *prima facie* case under § 1983, plaintiffs must successfully allege two elements: (1) the action occurred “under color of state law” and (2) the action is a deprivation of a constitutional right or a federal statutory right.¹³⁸ The first element involves a fact-specific inquiry wherein the court must examine the relationship between the challenged action and the government.¹³⁹ When a plaintiff sues a governmental entity, such as a city or county, for a constitutional violation arising from its policy or custom, action under color of law is present because the entity was created by state law.¹⁴⁰ Because a governmental entity generally acts only through its agents or employees, all regulatory actions associated with development review, approval, and enforcement occur under color of law. The second element involves the alleged deprivation of selected

135. 44 C.F.R. § 60.3(c)(10) (2007).

136. 42 U.S.C. § 1983 (2000).

137. Section 1983 reads as follows:

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 an action at law, suit in equity, or other proper proceeding for redress

Id.

138. *Parratt v. Taylor*, 451 U.S. 527, 535 (1981), *overruled in part by Daniels v. Williams*, 474 U.S. 327, 330–31 (1986).

139. *See Brentwood Acad. v. Tenn. Secondary Sch. Athletic Ass’n*, 531 U.S. 288, 295–96 (2001) (“Thus, we say that state action may be found if, though only if, there is such a ‘close nexus between the State and the challenged action’ that seemingly private behavior ‘may be fairly treated as that of the State itself.’ What is fairly attributable is a matter of normative judgment, and the criteria lack rigid simplicity.”) (citation and footnote omitted).

140. *See, e.g., Monell v. Dep’t of Soc. Servs.*, 436 U.S. 658, 690–91 (1978) (“[T]he Civil Rights Act of 1871 compels the conclusion that Congress *did* intend municipalities and other local government units to be included among those persons to whom § 1983 applies.”).

constitutional rights.¹⁴¹ When a plaintiff asserts the violation of a right specifically enumerated in the Bill of Rights or protected under the Due Process Clause, the violation occurs at the time of the challenged conduct and the § 1983 remedy is available.¹⁴²

Governments may exercise eminent domain authority in ways that give rise to actions under § 1983. While liberty interests may be derived directly from the Due Process Clause or created by state law, property interests “are created . . . from an independent source such as state law.”¹⁴³ In *La Raza Unida v. Volpe*, plaintiffs sought to halt the acquisition of land for highway construction that would displace them from their homes.¹⁴⁴ Plaintiffs based their claim, in part, on provisions of the Uniform Relocation Assistance and Real Property Act of 1970, which entitled those displaced by federal construction projects to various forms of assistance in relocation.¹⁴⁵ The court held that under the Act, state officers were obligated “to determine that, comparable, decent, safe, and sanitary replacement housing will be available for displaced persons prior to displacement,” and their failure to do so was actionable under § 1983.¹⁴⁶

Section 1983 operated in the floodplain context in *Wozniak v. County of Du Page*, where county officials denied a permit for proposed development on the grounds that the property was prone to flooding.¹⁴⁷ On appeal, the court reversed the zoning board’s decision and granted the property owners’ permit request.¹⁴⁸ Subsequently, the property owners alleged in federal court that the county violated their due process rights, not based on mere mistake of floodplain determination, but as part of a conspiracy to preserve their property for a future public roads project.¹⁴⁹ The district court concluded that, since it was “conceivable that if the Wozniaks were successful in proving that the flood plain decision was a sham, was in violation of applicable standards and appropriate guidelines, and was made only to improperly preserve the land for another purchaser, their federal claim could proceed to judgment.”¹⁵⁰

141. *Parratt*, 451 U.S. at 535.

142. *Zinermon v. Burch*, 494 U.S. 113, 125 (1990) (quoting *Daniels*, 474 U.S. at 331).

143. *Bd. of Regents v. Roth*, 408 U.S. 564, 577 (1972).

144. *La Raza Unida v. Volpe*, 440 F. Supp. 904, 906 (N.D. Cal. 1977).

145. *Id.*

146. *Id.* at 912 (quoting H.R. REP. NO. 91-1656 (1970), *reprinted in* 1970 U.S.C.C.A.N. 5850, 5852).

147. *Wozniak v. County of Du Page*, 569 F. Supp. 813, 814–15 (N.D. Ill. 1983).

148. *Id.* at 814 n.1.

149. *Id.* at 814–15.

150. *Id.* at 816.

In another case, *A.A. Profiles, Inc. v. City of Fort Lauderdale*, the landowner sought “relief under 42 U.S.C. § 1983 for the taking of property without just compensation in violation of the fifth amendment and the deprivation of property without due process in violation of the fourteenth amendment.”¹⁵¹ The Eleventh Circuit first held that the case was ripe for adjudication under § 1983, because city’s action was final.¹⁵² The court then distinguished between the finality of the administrative action and the exhaustion of administrative remedies.¹⁵³ No adequate remedy, administrative or otherwise, was available to appellant.¹⁵⁴ The court also considered that the city had previously approved development of the land, and the owner had expended a great deal of time and money in pursuing the development.¹⁵⁵ The court concluded that the city’s rezoning of his land was an unconstitutional taking.¹⁵⁶

Municipalities can be held liable under § 1983 for failure to adequately train its officials, employees, and agents. The U.S. Supreme Court reached this conclusion in the 1989 decision *Collins v. City of Harker Heights*, noting that:

[I]f a city employee violates another’s constitutional rights, the city may be liable if it had a policy or custom of failing to train its employees and that failure to train caused the constitutional violation. In particular, we held that the inadequate training of police officers could be characterized as the cause of the constitutional tort if—and only if—the failure to train amounted to “deliberate indifference” to the rights of persons with whom the police come into contact.¹⁵⁷

Subsequently, lower courts have considered property interests in the context of § 1983 claims, and reinforced the importance of due process, transparency, notice, and consistency in the application of local standards for communities wishing to avoid civil rights challenges. In *Staubes v. City of Folly Beach*, the South Carolina Court of Appeals considered whether the city’s denial of permits for reconstruction of a substantially damaged

151. *A.A. Profiles, Inc. v. City of Fort Lauderdale*, 850 F.2d 1483, 1484 (11th Cir. 1988), *cert. denied*, 490 U.S. 1020 (1989) (footnote omitted).

152. *Id.* at 1486–87.

153. *Id.*

154. *Id.*

155. *Id.* at 1488.

156. *Id.*

157. *Collins v. City of Harker Heights*, 503 U.S. 115, 123–24 (1992).

structure manifested a taking and whether the city's action violated the property owner's procedural due process rights under § 1983.¹⁵⁸ The court held that even though the City had revoked the property owner's building permit for repairing the damage following Hurricane Hugo, the City "did not deprive owner of all economically viable use" of his land. The court reasoned that the owner may have rented the residential building had he taken steps to comply with applicable building codes.¹⁵⁹ Since the owner could have profited without the permit, the court found that the City had not temporarily taken the property owner's land.¹⁶⁰

However, the City did not substantiate revoking Staubes' building permit with evidence that the estimated cost of repairs exceeded fifty percent of the building's pre-Hugo market value.¹⁶¹ As a result, the Court remanded to the trial court for determination as to whether the City's actions were sufficiently negligent to support Staubes' claim under the South Carolina Torts Claims Act.¹⁶² Oddly, Staubes' claims were dismissed in 2001 because he was not able to demonstrate that he owned the property.¹⁶³ Even so, *Staubes v. City of Folly Beach* still provides support for landowner claims of gross negligence where a city fails to support actions with clear, meaningful, and expert evidence where needed.¹⁶⁴

Floodplain mapping and determination can be controversial subjects of litigation. States, through enabling legislation, often grant discretion to municipal authorities to regulate land use in order to prevent injury to people and damage to property. Since local governments that participate in the NFIP adopt, enforce, and help maintain Flood Insurance Rate Maps (FIRMs), they may regulate flood hazard areas beyond the boundaries shown on an effective FIRM.

Courts have upheld this local practice where it is congruent with enabling statutes and designed to secure safety from hazards like flooding. The District Court for the District of Connecticut affirmed this principle in *Ravalese v. Town of East Hartford*, when the plaintiff landowner claimed that the town's use of a more restrictive floodplain map deprived him "of his property without due process of law and without compensation and that the actions of [the town], therefore, constituted violations of the Fifth and

158. *Staubes v. City of Folly Beach* (Staubes I), 500 S.E.2d 160 (S.C. Ct. App. 1998).

159. *Id.* at 165.

160. *Id.* at 165–66.

161. *Id.* at 168.

162. *Id.*

163. *Staubes v. City of Folley Beach* (Staubes II), 95-CP-10-2402, 2001 WL 35835129 (S.C. Com. Pl. Jan. 18, 2001).

164. *Staubes I*, 500 S.E.2d at 168.

Fourteenth Amendments redressable under 42 U.S.C. § 1983.¹⁶⁵ The court upheld the town's authority to regulate from its own maps, rather than those of the state or federal governments, and concluded that the ordinance "simply regulates construction and use so that development in such a zone does not increase the potential for personal and economic harm from a flood."¹⁶⁶

More recently, in *Ahern v. Fuss & O'Neill, Inc.*, a developer filed a § 1983 action against a Connecticut town in connection with its adoption of a revised floodplain map that reflected a higher flood elevation for the redevelopment site.¹⁶⁷ "The map revision resulted from the belated discovery of a discrepancy in previously existing documents describing the floodplain," and required that the developer modify the proposed development in such a way that, in the developer's view, rendered the site unsuitable.¹⁶⁸ The court concluded that the town's adoption of the revised map was not its own policy decision; it was an adoption of federal flood elevation levels in accord with the town's policy of participation in the NFIP.¹⁶⁹

The Floodplain Administrator for Canadian County, Oklahoma was sued individually and in her official capacity by a plaintiff landowner who claimed violations of the takings clause of the Fifth Amendment, and his right to procedural and substantive due process under the Fourteenth Amendment.¹⁷⁰ The plaintiff claimed a taking of his property due to the county's action of declaring his land a floodplain.¹⁷¹ In addition, the plaintiff also brought a state law claim against the county and its officials for inverse condemnation, intentional interference with contractual relations, and civil conspiracy against the officials as individuals. The district court found the claims not ripe for review, since the landowner had not filed a complete permit application and the county had rendered no final decision.¹⁷² The court relied on a Supreme Court case to conclude that "the economic impact of the challenged action and the extent to which it interferes with reasonable investment-backed expectations . . . cannot be evaluated until the administrative agency has arrived at a final, definitive position regarding how it will apply the regulations at issue to the particular

165. *Ravalese v. Town of E. Hartford*, 608 F. Supp. 575, 576 (D. Conn. 1985).

166. *Id.* at 580.

167. *Ahern v. Fuss & O'Neill, Inc.*, 826 A.2d 1224, 1231-32 (Conn. App. Ct. 2003).

168. *Id.* at 1225.

169. *Id.* at 1231-32.

170. *Glen Eagles of Canadian County, L.L.C. v. Bd. of County Comm'rs*, CIV-05-0469-HE, 2006 U.S. Dist. LEXIS 27266, at *6 (D. Okla. May 1, 2006).

171. *Id.* at 6-7.

172. *Id.* at 9.

land in question.”¹⁷³ Since the federal takings claim was not ripe, the court considered all of the related constitutional claims to be “coextensive” and also not ripe.¹⁷⁴

In *York v. Cedartown*, the plaintiffs filed a § 1983 claim that the city’s negligently designed and erected street and drainage system diminished the value of their property and constituted a continuing nuisance.¹⁷⁵ The Fifth Circuit held that the damages may be actionable in tort, but did not suggest the level of abuse of governmental power necessary to elevate the claim to a constitutional civil rights violation.¹⁷⁶

Courts have consistently found that state compensation procedures may be available and must be exhausted for landowners to pursue their action in federal court. For example, “[i]nverse condemnation actions brought under Fifth Amendment are subject to this ripeness requirement [i]f and only if a [landowner] is unable to obtain remedy at the administrative and state court level, [landowners] may pursue action in federal court for taking without just compensation.”¹⁷⁷

However, a Minnesota court held that damages were appropriate where the county’s negligent construction of a public project altered the flow of water causing severe structural damage to a home.¹⁷⁸ “Because appellant’s residence was present prior to the enactment of the [city’s floodplain management] ordinance, it could remain as a nonconforming use, but the ordinance prohibit[ed] reconstruction of a nonconforming use . . . destroyed to an extent of fifty percent or more of its assessed value.”¹⁷⁹ When the city condemned the home on grounds it was a hazardous building under Minnesota law, the plaintiff homeowner vacated and eventually defaulted on his mortgage.¹⁸⁰ The court found that the city exercised its authority under the state’s safe building laws, “but it effectively applied a standard enacted as part of the floodplain ordinance [and] used that standard without

173. *Id.* at 10 (citing *Williamson County Reg’l Planning Comm’n v. Hamilton Bank of Johnson City*, 473 U.S. 172, 191 (1985)).

174. *Id.* at 13.

175. *York v. Cedartown*, 648 F.2d 231, 231–32 (5th Cir. 1981).

176. *Id.* A Georgia court has followed the Fifth Circuit’s ruling in *York*. *Baranan v. Fulton County*, 299 S.E.2d 722 (Ga. 1983).

177. *Bensch v. Metro. Dade County*, 952 F. Supp. 790, 795 (S.D. Fla. 1996); *see also* *Anderson v. Chamberlain*, 134 F. Supp. 2d 156 (D. Mass. 2001) (citing *Williamson County*, 473 U.S. 172, the court applied a two-part test to determine whether a federal takings claim is ripe); *Clear Channel Outdoor v. City of Lakewood*, 04-5427 FDB, 2005 WL 1354609 (W.D. Wash. Jun. 3, 2005) (not reported in F. Supp. 2d) (dismissing takings claim for lack of ripeness).

178. *Oswalt v. County of Ramsey*, 371 N.W.2d 241 (Minn. Ct. App. 1985).

179. *Id.* at 245.

180. *Id.* at 244.

the determination it would necessarily make if it exercised force openly under the ordinance.”¹⁸¹

In addition to due process grounds, the U.S. Constitution provides for claims of violations of equal protection rights, as in *Willowbrook v. Olech*.¹⁸² Mrs. Olech’s complaint alleged that the municipality demanded a thirty-three foot easement as a condition of connecting her property to the municipal water line, whereas only a fifteen foot easement was required from other property owners in her subdivision.¹⁸³ Further, she claimed that the municipality’s demand for additional footage was irrational and wholly arbitrary and that the village ultimately connected her property after receiving a clearly adequate fifteen foot easement.¹⁸⁴ On certiorari, the Supreme Court held that Mrs. Olech had successfully stated a cognizable equal protection claim.¹⁸⁵

In the recent case of *O’Mara v. Town of Wappinger*, property owners and their property management company filed an action against defendant town and asserted a claim for declaratory judgment of ownership free and clear of restriction, a claim under § 1983 for violation of their substantive due process rights, and state law claims for fraud and negligent misrepresentation.¹⁸⁶ Prior to closing on a purchase, the property owners had a title search done, but the search made no mention of open space or “no build” restrictions on either parcel.¹⁸⁷ It was brought to the Town’s attention by one of the heirs of the original owner of the property that the property was not supposed to be developed, and the town zoning administrator issued a stop work order to the property owners.¹⁸⁸ The town offered to grant the property owners a certificate of occupancy upon the contingency that the rest of the two parcels of property would be designated as open space.¹⁸⁹ The court found that because the development restriction on the property was not properly recorded, the restriction was not enforceable against bona fide purchasers, such as the property owners.¹⁹⁰

In *Neifert v. Department of Environment*, plaintiff landowners “sought damages and attorneys’ fees from the Department and, pursuant to 42 U.S.C. § 1983, from the officials responsible for the permit denials

181. *Id.* at 247.

182. *Village of Willowbrook v. Olech*, 528 U.S. 562 (2000).

183. *Id.*

184. *Id.*

185. *Id.* at 564.

186. *O’Mara v. Town of Wappinger*, 485 F.3d 693, 699–700 (2d Cir. 2007).

187. *Id.*

188. *Id.* at 696.

189. *Id.*

190. *Id.*

claiming the denial of equal protection and an unconstitutional taking under both the United States and Maryland Constitutions.”¹⁹¹ The court denied the equal protection and takings claims, noting that:

although the septic denials rendered appellants’ lots undevelopable, the denials did not constitute a taking because they fall within the takings ‘nuisance exception’ recognized by the Supreme Court in *Lucas*. Nuisances that are recognized at common law and prohibit all economically beneficial use of land do not constitute a taking.¹⁹²

As the body of property-rights related § 1983 jurisprudence continues to mount, public officials can take comfort in the continued support from the courts for NAI principles.

“Procedural due process imposes constraints on governmental decisions [that] deprive individuals of ‘liberty’ or ‘property’ interests within the meaning of the Due Process Clause of the Fifth and Fourteenth Amendment.”¹⁹³ Procedural due process requires that a deprivation of a property interest “be preceded by notice and opportunity for hearing appropriate to the nature of the case.”¹⁹⁴

Communities working to incorporate NAI principles into their planning and development review processes should assure their citizens’ opportunity to be heard “at a meaningful time and in a meaningful manner.”¹⁹⁵ Changes to development codes, plans, or standards of review benefit from informed public participation and buy-in. Additionally, when proposed development may impact adjacent or downstream neighbors, NAI principles call for their advanced notification and opportunity to voice concerns.

While the primary concern of procedural due process is that government officials provide public notice and opportunity to be heard, substantive due process is concerned with whether the government’s deprivation of life, liberty, or property is justified by a sufficient purpose. “[S]ubstantive due process is a constitutionally imposed limitation . . . [designed] . . . to prevent government from abusing [its] power, or

191. *Neifert v. Dep’t of Env’t*, 910 A.2d 1100, 1109–10 (Md. 2006).

192. *Id.* at 1119 (citations omitted).

193. *Mathews v. Eldridge*, 424 U.S. 319, 333 (1976).

194. *Cleveland Bd. of Educ. v. Loudermill*, 470 U.S. 532, 542 (1985) (quoting *Mullane v. Cent. Hanover Bank & Trust Co.*, 339 U.S. 306, 313 (1950)); *see also* *Wolff v. McDonnell*, 418 U.S. 539, 557–58 (1974) (hearing required); *McVeigh v. United States*, 78 U.S. 259, 267 (1870) (right to notification and a hearing); *Baldwin v. Hale*, 68 U.S. 223 (1863) (same).

195. *Armstrong v. Manzo*, 380 U.S. 545, 552 (1965).

employing it as an instrument of oppression.”¹⁹⁶ Violations of substantive due process may take the form of either arbitrary and capricious decisions or of those decisions that fall beyond the standards of decency.

Courts have determined that substantive due process is violated when a government action lacks any reasonable justification or fails to advance a legitimate governmental objective.¹⁹⁷ To withstand a claim that principles of substantive due process have been violated, communities applying NAI principles must ensure that the proposed actions (1) serve a legitimate governmental objective;¹⁹⁸ (2) use means that are reasonably necessary to achieve that objective;¹⁹⁹ and (3) are not unduly oppressive.²⁰⁰

C. Katrina-Related Litigation

Poor naked wretches, wheresoe'er you are,
That bide the pelting of this pitiless storm,

How shall your houseless heads and unfed sides,
Your loop'd and window'd raggedness, defend you

From seasons such as these?

William Shakespeare, KING LEAR, act 3, sc. 4.

“As of May 2007, approximately 250,000 people seeking over \$278 billion in Katrina-related damages have had lawsuits filed on their behalf against the U.S. government alone.”²⁰¹ Numerous other organizations, corporations, public officials, levee boards, insurance companies, and others are being sued for additional billions of dollars in damages—the list of attorneys involved in some of these cases goes on for pages.²⁰²

196. Norton v. Vill. of Corrales, 103 F.3d 928, 932 (quoting Sylvia Dev. Corp. v. Calvert County, 48 F.3d 810, 827–28 (4th Cir. 1995)).

197. County of Sacramento v. Lewis, 523 U.S. 833, 845–46 (1998) (citing Daniel v. Williams, 474 U.S. 327, 331 (1986)).

198. *Id.*

199. *Id.*

200. Collins v. City of Harker Heights, 503 U.S. 115, 126 (1992) (quoting DeShaney v. Winnebago County Dep't of Soc. Servs., 489 U.S. 189, 196 (1989)).

201. See Edward A. Thomas, *Recovery Following Hurricane Katrina: Will Litigation and Uncertainty Today Make for an Improved Tomorrow?*, 29 NAT'L WETLANDS NEWSLETTER 30, 31 (2007) (citing Peter Whoriskey, WASH. POST, May 13, 2007, at A3).

202. See, e.g., *In re Katrina Canal Breaches Consol.*, No. 05-4182, 2008 WL 314396 (E.D. La. Jan. 30, 2008) (dismissing the consolidated claims of approximately 65,000 of the more than 300,000 property owners claiming harms associated with the failures of levees in New Orleans in Hurricane Katrina).

Under the doctrine of sovereign immunity, “the United States may not be sued without its consent.”²⁰³ The Federal Tort Claims Act (FTCA) waives this immunity in certain situations, providing that: “[t]he United States shall be liable, respecting the provisions of this title relating to tort claims, in the same manner and to the same extent as a private individual under like circumstances.”²⁰⁴ However, section 3 of the Flood Control Act of 1936 (FCA) states 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.”²⁰⁵ As such, the United States is normally immune from suit for failed flood control works.²⁰⁶

On February 2, 2007, many of the plaintiffs in a massive lawsuit against the U.S. government—*In re Katrina Canal Breaches Consol. Litigation*—made progress in their claims that the Mississippi River Gulf Outlet (MRGO) “caused the catastrophic damage to the Lower Ninth Ward, New Orleans East, and St. Bernard Parish.”²⁰⁷ The plaintiffs pointed to

at least two defective conditions known by the U.S. Army Corps of Engineers for decades—(1) the destruction of the marshlands surrounding the MRGO which intensified an east-west storm surge which resulted in the flooding of much of New Orleans and (2) the funnel effect stemming from the MRGO’s faulty design which accelerated the force and strength of that surge.²⁰⁸

Therefore, the plaintiffs argued that the devastating flooding would not have occurred had the MRGO not been breached.²⁰⁹ The United States argued that it was immune under the FCA because the water that caused the damage was “flood waters.” The government also asserted immunity under the FCA because “the damages alleged were caused by flood waters that federal works failed to control.”²¹⁰ The district court ruled that because the plaintiffs are suing for damages caused by the MRGO—“the decimation of wetlands over a long period of time [that] created the hazard that resulted in flooding [that] . . . could not have been controlled by any flood control

203. See, e.g., *United States v. Mitchell*, 463 U.S. 206, 213 (1983).

204. 28 U.S.C. § 2674 (2000).

205. 33 U.S.C. § 702c (2000).

206. Edward A. Thomas, *Liability for Water Control Structure Failure Due to Flooding* 21 (Sept. 7, 2006) (unpublished paper prepared for the Ass’n of State Floodplain Managers), available at http://www.floods.org/pdf/NAI_Liability_Failure_Facilities_0906.pdf.

207. *In re Katrina Canal Breaches Consol.*, No. 05-4182, slip op. (E.D. La. Feb. 2, 2007).

208. *Id.* at 2.

209. *Id.*

210. *Id.*

project”—“the plaintiffs are not seeking damages for the failure of the levees or flood projects.”²¹¹ The court also rejected the government’s claim that the “due care” and “discretionary function” exceptions to the FTCA warrant dismissal at this early stage of the litigation.²¹²

The MRGO canal had previously been the subject of a suit against the United States following Hurricane Betsy in 1965.²¹³ The courts ruled in *Graci v. United States* that the federal immunity from lawsuits due to “floods or flood waters at any place” referred only to flood control, not navigation projects, and that the MRGO was a navigation project.²¹⁴ The final court ruling in *Graci* held that the United States was not immune to suit from damages allegedly caused by the MRGO eight years after Hurricane Betsy.²¹⁵ It may well take as many or more years of legal wrangling before a final decision is made in *In re Katrina*.²¹⁶ Sustaining such a suit against the federal government is extremely difficult.²¹⁷ However, the difficulty usually faced by a plaintiff in proving a causal link between the harm and the government’s action or inaction could be more easily overcome in the Hurricane Katrina context given pre-existing studies on both the levee and floodwall failures.²¹⁸

CONCLUSION

Courts recognize the public hazard created by developing floodprone areas, to the occupants, to upstream and downstream owners, and to the public generally, because of increased costs. Where threats to life are involved, the legislature may take the “most conservative course which

211. *Id.* at 15.

212. *Id.* at 3.

213. *Graci v. United States*, 456 F.2d 20 (5th Cir. 1971), *cert. denied*, 412 U.S. 928 (1973).

214. *Id.* at 20, 23.

215. *Id.* at 27.

216. *In re Katrina Canal Breaches*.

217. *See Graci*, 456 F.2d at 28 (“We call attention to the final paragraphs of the [lower court’s] opinion. There [the court] pointed out that despite [its] refusal to dismiss the action, the plaintiffs bear a heavy burden in proving that the United States was negligent in the construction of the [MRGO] and that such negligence was the cause of their injuries. We go along with this note of caution. In starting the plaintiffs on the journey of proving that the Government’s negligence was the cause of their injuries from a hurricane such as ‘Betsy’, we feel compelled to say that the plaintiffs are a long way from home.”) (citation omitted).

218. For further information about the challenges that the potential failure of levees pose to our Nation, see, for example, GERALD F. GALLOWAY ET AL., INDEP. REVIEW PANEL, CAL. DEP’T OF WATER RES., A CALIFORNIA CHALLENGE: FLOODING IN THE CENTRAL VALLEY, at iii (2007), available at <http://www.water.ca.gov/news/newsreleases/2008/101507challenge.pdf>.

science and engineering offer.²¹⁹ In the Massachusetts case of *Turner v. Walpole*, the court held that a floodplain zoning district did not result in a taking of property since the evidence established that the land was floodprone and that the plaintiff had not been deprived of all beneficial uses of the land.²²⁰ In 2006, the New Jersey Supreme Court reversed a lower court decision finding that denial of permits for residential construction in a mapped floodway constituted a taking.²²¹

Where a landowner argues that regulation to reduce the risk of harm in floods has rendered her property undevelopable or valueless, the court would likely impose on her the burden to show a deprivation of all economically beneficial use.²²² However, the Court in *Lucas* emphasized that even where regulation deprives land of all economically beneficial use, no compensation may be due if the purpose is to prevent a dangerous use.²²³ Moreover, courts frequently find at least some economic value in land preserved as open space, for stormwater detention, as a viewshed amenity to adjacent property owners, or similar uses other than brick and mortar development.²²⁴

Developers and landowners may attempt to use takings litigation—or the mere threat of litigation—to persuade government officials to relax or abandon land use controls designed to regulate development in a flood hazard area. However, state and local governments are more likely to be successfully sued for engaging in activity or even allowing development that causes or exacerbates damage in future floods than for prohibiting such development.²²⁵ In fact, modern law supports a preventive approach as part

219. *Queenside Hills Realty Co. v. Saxl*, 328 U.S. 80, 83 (1946); *see also* *First English Evangelical Lutheran Church v. County of Los Angeles*, 258 Cal. Rptr. 893, 906 (1989), *reh'g denied and opinion modified*, (June 23, 1989) (finding it “entirely reasonable to [temporarily] ban the construction or reconstruction of any structures for” a study “compatible with the preservation of life and health”).

220. *Turner v. Town of Walpole*, 409 N.E.2d 807, 808–09 (Mass. Ct. App. 1980).

221. *Mansoldo v. State*, 898 A.2d 1018, 1018–21 (N.J. 2006).

222. *See Lucas v. S. C. Coastal Council*, 505 U.S. 1003, 1016 (1992) (“As we have said on numerous occasions, the Fifth Amendment is violated when land-use regulation ‘or denies an owner economically viable use of his land.’”).

223. *Id.* at 1022.

224. *See, e.g., Turner v. County of Del Norte*, 24 Cal. App. 3d 311, 314 (Ct. App. 1972) (recreation); *Hall v. Bd. of Envtl. Prot.*, 528 A.2d 453 (Me. 1987) (seasonal trailer); *Turnpike Realty Co. v. Town of Dedham*, 284 N.E.2d 891, 899–900 (Mass. 1972) (holding there is no taking when the land has other uses including “woodland, grassland, wetland, agriculture, horticulture, or recreational use of land or water”); *S. Kemble Fischer Realty Trust v. Bd. of Appeals of Concord*, 402 N.E.2d 100, 103 (Mass. App. Ct. 1980) (stating that abutting land can be used to increase the value of non-regulated land and therefore not a taking); *Claridge v. N. H. Wetlands Bd.*, 485 A.2d 287, 289 (N.H. 1984) (camping); *April v. City of Broken Arrow*, 775 P.2d 1347, 1354 (Okla. 1989) (agriculture and open space uses).

225. *See, e.g., Bragg v. City of Rutland*, 41 A. 578 (Vt. 1898) (holding city was liable for damages resulting from drain obstruction where city was responsible for inspecting the work and

of local “police powers” to protect the health, safety, and welfare of all members of your community.²²⁶ Thus, community leaders working to implement NAI principles can help prevent successful challenges by following the guidance of the courts regarding land use and takings. It is important to clearly relate proposed regulations to the prevention and mitigation of harm.

materials); *Peterson v. Town of Oxford*, 459 A.2d 100 (Conn. 1983) (holding the town was not immune from liability for damages to property owners’ land caused by flooding which allegedly resulted from town’s unreasonable use of an easement); *see also* Kusler & Thomas, *supra* note 51.

226. *See, e.g., Turnpike*, 284 N.E.2d at 236–37 (holding that a decrease in property value was not sufficient to invalidate floodplain requirement); *Fortier v. City of Spearfish*, 433 N.W.2d 228, 231 (S.D. 1988) (upholding a floodplain ordinance limiting construction as a reasonable exercise of the local police power).