

RESTORING RESPONSIBILITY AND ACCOUNTABILITY IN DISASTER RELIEF

JOHN K. WARREN*

INTRODUCTION

In the aftermath of Hurricane Katrina, questions regarding the funding and responsibility for the cleanup operations of natural disasters have become increasingly salient, and will continue to have broad political, economic, and environmental implications for the foreseeable future. The considerable economic¹ and environmental² problems arising from such disasters will need to be addressed in a clear and concise manner in order to successfully mitigate their catastrophic effects on the national landscape. For Hurricane Katrina alone, the Congressional Budget Office estimates that “damage to homes, government buildings, oil refineries and businesses will total between \$70 billion and \$130 billion.”³ In addition, the so-called “toxic tide”⁴ created by the synthetic mixture of everything from “household paints, deodorants, and old car

* John K. Warren received his B.A. in Political Science with a concentration in International Relations from Duke University in 2004. Mr. Warren is a 2007 J.D. candidate at the College of William & Mary Law School. He would like to thank his parents, Kay and Phil Warren, for their love and tremendous support throughout his academic career. He would also like to thank the editorial staff for their dedicated and inexhaustible assistance in the preparation of this Note for publication.

¹ See *Weatherproofing the U.S.: Are We Prepared For Severe Storms?: Hearing Before the Subcomm. on Env't, Tech., & Standards of the House Comm. on Sci.*, 107th Cong. 3 (2001) [hereinafter *Weatherproofing the U.S. Hearing*] (“Each year, severe weather . . . causes roughly \$16 billion in damages.”).

² See H. JOHN HEINZ III CTR. FOR SCI., ECON. & THE ENV'T, *THE HIDDEN COSTS OF COASTAL HAZARDS* 83, tbl. 3.8 (2000) (detailing the “natural resource and ecosystem costs of coastal hazards and disasters”).

³ Andrew Taylor, *Gov't Hurricane Tab May Be Below \$150B*, BREITBART.COM, Oct. 6, 2005, http://www.breitbart.com/article.php?id=D8D2SHV83&show_article=1. See also DAVID L. JOHNSON, NAT'L WEATHER SERV., NAT'L OCEANIC AND ATMOSPHERIC ADMIN., *SERVICE ASSESSMENT: HURRICANE KATRINA 1* (2006), available at <http://www.weather.gov/om/assessments/pdfs/Katrina.pdf> (stating that the National Hurricane Center has estimated the total damage at \$81.2 billion).

⁴ Brad Knickerbocker & Patrik Jonsson, *New Orleans' Toxic Tide Will Cause Costly Cleanup*, USA TODAY, Sept. 7, 2005, http://www.usatoday.com/news/nation/2005-09-07-katrina-water-cleanup_x.htm.

batteries to railroad tank cars, sewage treatment plants, and landfills,”⁵ will further complicate and intensify the already daunting task faced by state, local, and federal cleanup officials.

Private homeowners face a significant number of obstacles in putting their lives back together, including the recent increase in the number⁶ and costs⁷ of natural disasters, decreased availability and affordability of insurance coverage,⁸ limited supply of federal funds available for cleanup operations, and patently obvious lack of viable alternative proposals for tackling pollution on private property. The cumbersome, ineffectual, and often counterintuitive cycle engendered by current emergency relief efforts⁹ creates damaging consequences for many affected communities.

This Note first explores the increasing importance and overall significance of natural disaster cleanup operations in the United States from the perspective of private homeowners.¹⁰ Next, it delineates the economic and bureaucratic structure of modern disaster relief.¹¹ Lastly, this Note articulates ways to improve the current system and address the salient issues that impede the implementation of successful alternatives for realizing a full and fair economic and environmental recovery for all adversely affected citizens.¹²

In confronting the problems wrought by natural disasters, the political response has often been one of short-sighted emotional zeal¹³ rather than the cautious, rational approach needed to fashion truly effective solutions. Commentators brave enough to challenge the firmly entrenched, federally subsidized “cycle of repair and reconstruction”¹⁴ have been

⁵ *Id.*

⁶ *Weatherproofing the U.S. Hearing, supra* note 1, at 4 (documenting the 250% increase in the number of dangerous hurricanes between 1995 and 2000 over the number of dangerous hurricanes between 1971 and 1994).

⁷ *Id.* at 3-4.

⁸ See generally Rob Rikoon, *Real Money: Katrina Creates Long-Term Misfortune*, SANTA FE NEW MEXICAN, Sept. 13, 2005, <http://www.freewmexican.com/news/32420.html>.

⁹ See DAVID M. BUSH ET AL., *LIVING BY THE RULES OF THE SEA* 4 (1996) [hereinafter BUSH ET AL., *RULES OF THE SEA*].

¹⁰ See *infra* Part I.

¹¹ See *infra* Parts II-V.

¹² See *infra* Parts VI-VIII.

¹³ See James O'Toole, *U.S. Help For Disaster Victims Goes From Nothing to Billions*, PITTSBURGH POST-GAZETTE, Oct. 2, 2005, <http://www.post-gazette.com/pg/pp/05275/581271.stm> (“Bush did not put a price tag on any of [the proposed Hurricane Katrina federal relief efforts]. In a subsequent news conference, he said, ‘It will cost what it costs.’”).

¹⁴ Daniel D. Barnhizer, *Givings Recapture: Funding Public Acquisition of Private Property Interests on the Coasts*, 27 HARV. ENVTL. L. REV. 295, 342 (2003).

labeled cruel and callous.¹⁵ One rational solution to this growing problem couples a firm commitment to expand and strengthen the Superfund¹⁶ with an emphasis on alternative proposals for the private or public acquisition of polluted or abandoned lands,¹⁷ such as the exercise of eminent domain (emboldened by the recent *Kelo v. City of New London*¹⁸ Supreme Court decision). This approach would forge a multifaceted and highly effective resolution for tackling the nation's natural disaster-related cleanup concerns. Such a proposal, if implemented, could successfully address the problems associated with rising costs, more frequent and more intense natural disasters, limited availability of funds, and counterintuitive government programs dealing with cleanup costs on privately owned land.

I. THE IMPORTANCE OF THE ISSUE

A. *Increasing Number and Cost of Natural Disasters*

With the advent of twenty-four-hour television news networks and the increasing number and availability of internet news sources, an impartial observer may believe that natural disasters such as floods and hurricanes are simply getting more national media coverage rather than actually growing in number and severity. However, "since 1995, hurricanes have become more frequent and more intense,"¹⁹ and the 2005 hurricane season was the "most active, most destructive hurricane season on

¹⁵ See generally Charles Babington, *Hastert Tries Damage Control After Remarks Hit a Nerve*, WASH. POST, Sept. 3, 2005, at A17, available at <http://www.washingtonpost.com/wp-dyn/content/article/2005/09/02/AR2005090202156.html> (detailing the widespread criticism of House Speaker Dennis Hastert for questioning the wisdom of a carte blanche federal approach for rebuilding New Orleans).

¹⁶ See *infra* Part III.

¹⁷ See generally Stephen M. Feldman, Comment, *CERCLA Liability, Where It Is and Where It Should Not Be Going: The Possibility of Liability Release for Environmentally Beneficial Land Transfers*, 23 ENVTL. L. 295 (1993).

¹⁸ *Kelo v. City of New London*, Conn., 545 U.S. 469 (2005). For an overview of this recent decision, see Charles Lane, *Justices Affirm Property Seizure*, WASH. POST, June 24, 2005, at A1, available at http://www.washingtonpost.com/wp-dyn/content/article/2005/06/23/AR2005062300783_pf.html.

¹⁹ Joseph B. Verrengia, *Natural Disaster in U.S. Morphs to Dangerous New Level*, PUEBLO CHIEFTAIN (Colo.), Oct. 1, 2005.

record.”²⁰ In addition, as one might expect, with the rising number and severity of storms, more lives have been disrupted.²¹

Perhaps the most significant reason for the sustained increase in the number of people impacted by natural disasters has been the rapid degree of migration towards coastal areas.²² With this increased movement, the cost of cleanup operations along the nation’s coasts has also risen because the values of the coastal migrants’ property have “increased substantially”²³ in the last few decades.

B. *Detrimental Environmental Effects*

In addition to the heightened physical, emotional, and economic strain besetting American communities affected by the rising number and severity of natural disasters, there has also been an increasing burden placed on the environmental landscape. Among the most common environmental problems engendered by natural disasters are “widespread distribution of persistent debris; accidental spills of fuel, sewage, industrial waste, household chemicals . . . and environmental damage associated with storm debris or material cleanup, including illegal filling of wetlands in low-lying areas and loss of landfill capacity.”²⁴ Among these concerns, perhaps the most pervasive threat is the significant problem of “post storm debris management.”²⁵ Post-storm environmental degradation has been even further compounded by a construction explosion on the coasts,²⁶ which places additional strains on arguably underfunded federal, state, and local authorities.²⁷

²⁰ Editorial, *Hurricane Wilma: The Last Chapter: Storm’s Power Reinforces Well-Known Lessons*, MIAMI HERALD, Jan. 20, 2006, at 20A.

²¹ Verrengia, *supra* note 19 (“Globally, more than 2.5 billion people were affected by floods, earthquakes, hurricanes and other natural disasters between 1994 and 2003, a 60 percent increase over the previous two 10-year periods.”).

²² *Id.*

²³ *Id.*

²⁴ H. JOHN HEINZ III CTR. FOR SCI., ECON. & THE ENV’T., *supra* note 2, at 83.

²⁵ *Id.* at 93.

²⁶ National Oceanic and Atmospheric Administration, International Year of the Ocean, <http://www.yoto98.noaa.gov/facts/cdevel.htm> (last visited Apr. 15, 2007) (“In recent years, 40 percent of new commercial development and 46 percent of new residential development happened near the coast.”).

²⁷ James C. Nicholas, *Paying for Growth: Solutions*, in GROWTH MANAGEMENT: THE PLANNING CHALLENGE OF THE 1990S, at 203 (Jay M. Stein ed., 1993) (“The much discussed federal retrenchment together with tax and revenue limitation efforts at the state and local levels have tended to aggravate this problem.”).

C. *Human Coastal Activities Are Disrupting the Natural Ability of Coastal Environments to Recover from Natural Disasters*

Historically, coastal ecosystems have shown a remarkable ability to regenerate²⁸ following natural disasters such as floods and hurricanes. However, the proliferation of “human development activities” interferes with the “natural processes that maintain coastal shorelines and wetlands.”²⁹ Consequently, it is necessary to evaluate ways in which detrimental human effects on the environmental landscape can be mitigated. In furtherance of that goal, this Note proposes bold new disincentives aimed at curbing unchecked coastal encroachment and restoring greater accountability to individuals and businesses willfully engaging³⁰ in environmentally destructive activities.

II. MODERN DISASTER RELIEF MECHANISMS

A. *The Inadequate Federal Scheme*

Although a *prima facie* analysis of many federal programs aimed at disaster relief appear helpful and well-intentioned, it seems that every purportedly effective federal response carries with it an offsetting counter-intuitive and counterproductive legislative enactment.³¹

1. The National Flood Insurance Program

The National Flood Insurance Program (“NFIP”) has taken great strides in ensuring that citizens located in areas prone to hazardous flooding known as “V-zones”³² take out mandatory³³ flood insurance policies

²⁸ H. JOHN HEINZ III CTR. FOR SCI., ECON. & THE ENV'T, *supra* note 2, at 121.

²⁹ *Id.* at 120. See also BUSH ET AL., RULES OF THE SEA, *supra* note 9, at 40 (contrasting the erosion rates of well-developed coastlines with “natural coastlines without buildings and infrastructure”).

³⁰ *Id.* at 94 (“Developers and real estate interests often take a ‘head in the sand’ attitude and are reluctant to face the reality that the beaches are retreating, that development disrupts the natural dynamics, or that the density of developments often exceeds the carrying capacity with respect to natural resources and processes.”).

³¹ See H. JOHN HEINZ III CTR. FOR SCI., ECON. & THE ENV'T, *supra* note 2, at 19 (detailing how federal insurance, tax, and regulatory policies continue to encourage proliferation of unwise development in hazardous coastal areas).

³² See BUSH ET AL., RULES OF THE SEA, *supra* note 9, at 46.

³³ Federal Emergency Management Agency, Nothing Could Dampen the Joy of Home Ownership—Or Could it?, <http://www.fema.gov/business/nfip/dampen.shtml> (last visited Apr. 15, 2007) (“Flood Insurance may be required by law.”).

and comply with a variety of federal housing regulations.³⁴ However, the required coverage for these individuals is the *least* of (1) the “maximum amount of NFIP flood insurance coverage available,” (2) the outstanding balance on all mortgages on a homeowner’s coastal real property, or (3) the “value of the property minus the land.”³⁵ Accordingly, since the maximum amount of coverage available is \$250,000 for physical structures and \$100,000 for personal property,³⁶ one can see how the NFIP policies would be unable to cover all costs of recovery, particularly environmental clean-up costs,³⁷ which receive little attention in NFIP explanatory literature.

Another problem with the National Flood Insurance Program is that, in an attempt to cut premiums and thus achieve affordability, rates have been reduced “in some states,” meaning that “one cannot expect insurance to be used effectively as a policy tool for encouraging adoption of mitigation measures.”³⁸ In other words, the relatively low cost of premiums on high-risk policies has not served as a deterrent to continued growth initiatives, a problem which this Note addresses by proposing an alternative taxation solution to rectify the lack of disincentives to such unchecked growth.

While the National Flood Insurance Program was intended to be mandatory for citizens in high-risk coastal areas, its coverage and applicability in disaster prone areas is not as widespread as one would imagine. For example, “the Federal government, through its ‘National Flood Insurance Program,’ insured 30 percent to 40 percent of the single-family dwellings in the region” affected by Hurricane Katrina.³⁹ Thus, because a large number of individual homeowners were uninsured privately or publicly prior to Hurricane Katrina, they remain ill-prepared to deal with the considerable economic, much less environmental, problems currently besetting their land.⁴⁰ Furthermore, the northern Gulf of Mexico region

³⁴ See generally FED. EMERGENCY MGMT. AGENCY, NATIONAL FLOOD INSURANCE PROGRAM: TOP TEN FACTS FOR LENDERS (2004).

³⁵ *Id.*

³⁶ FED. EMERGENCY MGMT. AGENCY, NATIONAL FLOOD INSURANCE PROGRAM: SUMMARY OF COVERAGE (2004), available at http://www.fema.gov/pdf/nfip/summary_cov.pdf.

³⁷ Christopher City, Note, *Duty and Disaster: Holding Local Governments Liable for Permitting Uses in High-Hazard Areas*, 78 N.C. L. REV. 1535, 1538-39 (2000) (“[T]here are costs to reconstruction—in terms of . . . natural resources . . . that far exceed any private or public insurance reimbursement.”).

³⁸ H. JOHN HEINZ III CTR. FOR SCI., ECON. & THE ENV'T, *supra* note 2, at xxxi.

³⁹ Rikoon, *supra* note 8.

⁴⁰ For a detailed discussion of environmental problems, such as “toxic tide,” associated with Hurricane Katrina, see Knickerbocker & Jonsson, *supra* note 4.

is not an insulated microcosm, but rather a reflection of the current situation for many homeowners along the coastal seaboard of the United States.⁴¹

An additional problem with the National Flood Insurance Program is that, when faced with a highly-publicized natural disaster the size of Hurricane Katrina, the program fails to adhere to its underlying equitable principle that those who knowingly and willingly live in high-risk areas, particularly those who refuse to insure their property, should absorb the primary cost of cleanup operations.⁴²

This problem was highlighted recently during the aftermath of Hurricane Katrina, when slow federal response and intense public criticism⁴³ precipitated President Bush's bestowal of seemingly *carte blanche* authority on the federal government to rebuild the city of New Orleans.⁴⁴ Such vast authority is implied by the President's statement that the clean-up effort will simply "cost what it costs."⁴⁵

Because of the dangers posed by such a sweeping grant of power, this Note proposes the development of a trip-wire mechanism to ensure that federal relief programs will adhere to their underlying equitable underpinnings, even in the face of short-sighted public opposition under the guise of compassion.⁴⁶ Similarly, such a mechanism could counter efforts by politicians to buy their way out of trouble and deflate public criticism by unwisely directing unlimited resources towards federal programs of

⁴¹ DAVID M. BUSH ET AL., *LIVING ON THE EDGE OF THE GULF: THE WEST FLORIDA AND ALABAMA COAST* 283 (2001) [hereinafter BUSH ET AL., *EDGE OF THE GULF*]. ("Currently the percentage of communities and homeowners that participate in the NFIP is low."). There is, however, promising news on the horizon. See Ben Evans, *Sales of Federal Flood Insurance Rise*, WASHINGTONPOST.COM, Jan. 5, 2007, <http://www.washingtonpost.com/wp-dyn/content/article/2007/01/05/AR2007010501361.html> (discussing a roughly thirteen percent increase in the number of federal flood insurance policies purchased from November 2005 to November 2006).

⁴² BUSH ET AL., *EDGE OF THE GULF*, *supra* note 41, at 283. See also Peter Whoriskey, *New Orleans Repeats Mistakes as it Rebuilds*, WASH. POST, Jan. 4, 2007, at A1, available at http://www.washingtonpost.com/wp-dyn/content/article/2007/01/03/AR2007010301593_pf.html ("[W]hile new federal guidelines call for raising houses to reduce the damage of future floods, most returning homeowners [in New Orleans] do not have to comply or are finding ways around the costly requirement.").

⁴³ See Gary Younge, *Criticism of Bush Mounts as More than 10,000 Feared Dead*, GUARDIAN (United Kingdom), Sept. 3, 2005, <http://www.guardian.co.uk/katrina/story/0,16441,1562005,00.html>.

⁴⁴ O'Toole, *supra* note 13.

⁴⁵ *Id.*

⁴⁶ City, *supra* note 37, at 1537 ("[E]fforts to impose emergency costs on the victims themselves remain unpopular.").

questionable efficiency and effectiveness.⁴⁷ This Note incorporates such a policy into its final proposal.

2. Additional Taxation and Regulatory Schemes

Like the National Flood Insurance Program, a variety of other federal initiatives, although well-intentioned, have led to equally counterproductive and antithetical results. For example, the "1982 Coastal Barrier Resources Act ("CBRA") acknowledged that flood insurance and other federal benefits may serve to stimulate growth in hazardous coastal areas."⁴⁸ These initiatives range from loan programs managed by the Small Business Administration, which subsidize rebuilding efforts in tumultuous coastal areas like outlying barrier islands, to generous tax incentives for coastal real estate development.⁴⁹ Although some of these policies have been acknowledged as "unwise" by the federal government, which claims to want to "place financial risk associated with development on those who live on or invest in the coastal barriers,"⁵⁰ many counter-intuitive initiatives remain intact. Despite criticism from many groups seeking to "break the [publicly subsidized] build-destroy-rebuild cycle,"⁵¹ the government has yet to fashion a "comprehensive, consistent national policy on the problem of coastal hazards."⁵²

B. *Private Insurance Remedies*

Like the public sector, the private insurance industry is also actively involved in damage assessment, rebuilding, and remuneration following natural disasters. While private insurance may alleviate some of the problems associated with the increasing number and costs of natural disasters on the nation's coasts, the industry is inadequately positioned to tackle the entire issue by itself.⁵³ For example, only \$40 billion

⁴⁷ David W. Sar, *Helping Hands: Aid for Disaster Homeless vs. Aid for "Ordinary Homeless,"* 7 STAN. L. & POL'Y REV. 129, 145 (1995).

⁴⁸ H. JOHN HEINZ III CTR. FOR SCI., ECON. & THE ENV'T, *supra* note 2, at 19.

⁴⁹ *Id.*

⁵⁰ KARL F. NORDSTROM, BEACHES AND DUNES OF DEVELOPED COASTS 194 (2000).

⁵¹ *Id.* at 217. See also H. JOHN HEINZ III CTR. FOR SCI., ECON. & THE ENV'T, *supra* note 2, at xxvii (proposing an "intensive, intergovernmental research effort . . . to identify federal, state, and local public policies that . . . promote growth . . . that increase[s] the vulnerability of communities to coastal disasters").

⁵² H. JOHN HEINZ III CTR. FOR SCI., ECON. AND THE ENV'T, *supra* note 2, at 11.

⁵³ For a discussion of the proportion of Hurricane Katrina cleanup costs covered by private

of the estimated \$70 to \$130 billion cost of Katrina will be covered by private insurance.⁵⁴ In addition, some Katrina insurers “are practicing a technique known as ‘slow rolling,’ procrastinating in making payments in hopes that claimants grow tired, desolate and more likely to accept what is offered.”⁵⁵ Compounding this bleak situation is the fact that “most people in the affected area did not have flood insurance because it was not available through private insurance companies.”⁵⁶ As a combined result of these factors, more private homeowners are turning to state, local, and federal officials for help in both the immediate and long-term cleanup process. Yet many government programs, including the Superfund (which will be discussed in greater detail in the following sections), typically have considerable bureaucratic and budgetary constraints.⁵⁷

Another pervasive problem with private insurance in the context of natural disasters is that many homeowners’ policies specifically exclude or severely limit coverage for losses associated with pollution.⁵⁸ Consequently, a comprehensive public initiative is needed to fill the void left by private insurance in responding to the environmental problems wrought by natural disasters. This Note describes such an innovative, equitable solution.

Even though the private insurance industry largely restricts its coverage over such efforts as environmental cleanup operations, in a 1998 press release, Consumers Union documented a concerted effort by the industry to lobby the federal government to “step in to provide financial assistance” in “the wake of billions of dollars of losses from hurricanes and

insurance, see Taylor, *supra* note 3.

⁵⁴ *Id.*

⁵⁵ Katie Fairbank & Jennifer LaFleur, *Katrina Survivors Face Next Task: Dealing with Insurance Company*, DALLAS MORNING NEWS, Nov. 13, 2005. There is, however, some promising news for embattled homeowners as evidenced by the recent litigation. See *State Farm Liable in Katrina Case* (Jan. 11, 2007), <http://www.msnbc.msn.com/id/16579242/> (“A jury . . . awarded \$2.5 million in punitive damages to a couple who sued State Farm Fire & Casualty Co. for denying their claim after Hurricane Katrina, a decision that could benefit hundreds of other homeowners challenging insurers for refusing to cover billions of dollars in storm damage.”).

⁵⁶ Rikoon, *supra* note 8.

⁵⁷ Bruce Yandle, *Superfund and Risky Risk Reduction*, in CUTTING GREEN TAPE: TOXIC POLLUTANTS, ENVIRONMENTAL REGULATION AND THE LAW 34 (Richard L. Stroup & Roger E. Meinert eds., 2000) (“Through 1991, the [Environmental Protection Agency] had used \$4.4 billion, some 48 percent of Superfund appropriations, to cover administrative costs.”).

⁵⁸ Michael E. Brown, *The Pollution Exclusion in the Homeowner’s Policy: A Meat Ax or a Scalpel?*, in ENVIRONMENTAL DAMAGE CLAIMS AND PROPERTY INSURANCE COVERAGE 333 (Dianne K. Dailey ed., 1997).

earthquakes.”⁵⁹ Despite these potentially large government settlements and bailouts, the industry has at the same time been taking steps to decrease its overall coverage and liability by “dropping or refusing to renew policies . . . withdraw[ing] from higher risk areas, and [shifting] . . . all or a portion of their liability to consumers and taxpayers.”⁶⁰ In the following sections, this Note explores how the current disaster relief system, including private disaster insurance, has created a costly, ineffective, and thoroughly untenable situation for individual landowners seeking both economic relief and environmental cleanup assistance.

III. THE SUPERFUND: A STEP IN THE RIGHT DIRECTION

A. CERCLA: An Overview

In 1980, Congress passed the Comprehensive Environmental Response, Compensation, and Liability Act (“CERCLA”), which is now “commonly known as Superfund.”⁶¹ The Environmental Protection Agency (“EPA”) touts the measure as helping to clean the “nation’s hazardous waste sites.”⁶² The Superfund is a government “trust fund, financed by taxes, . . . which is used to cover the response costs of government.”⁶³ Despite its numerous successes and well-defined environmental standards,⁶⁴ because it is a trust fund, the program has limited financial resources and is thus unable to adequately respond to all environmental disasters falling within its purview.⁶⁵ Indeed, “the EPA’s ultimate fear is that using [Superfund] dollars liberally without corresponding reimbursement will deplete its resources leaving the environment and the

⁵⁹ Press Release, Consumers Union, Natural Disaster Insurance: The Consumer Perspective (Jan. 15, 1998) [hereinafter Consumers Union Press Release], available at <http://www.consumersunion.org/finance/0116prin.htm>.

⁶⁰ *Id.*

⁶¹ Comprehensive Environmental Response, Compensation, and Liability Act of 1980, Pub. L. No. 96-510, 94 Stat. 2767 (1980) (codified at 42 U.S.C. §§ 9601-75 (2007)). See also Environmental Protection Agency, CERCLA Overview, <http://www.epa.gov/superfund/action/law/cercla.htm> (last visited Apr. 15, 2007).

⁶² Environmental Protection Agency, Superfund, <http://www.epa.gov/superfund/> (last visited Apr. 15, 2007).

⁶³ Joseph C. Sweeney, *Protection of the Environment in the United States*, 1 FORDHAM ENVTL. L. REP. 1, 43 (1989) (citation omitted).

⁶⁴ See, e.g., 42 U.S.C. § 9621.

⁶⁵ See Arnold W. Reitze, Jr. et al., *Cost Recovery by Private Parties Under CERCLA: Planning a Response Action for Maximum Recovery*, 27 TULSA L.J. 365, 368 (1992).

public's interest in it without protection."⁶⁶ The significant problem of the undercapitalization of the Superfund has been well documented, and until the situation changes, the majority of hazardous waste sites will be left "as is" because their sheer numbers outstrip the EPA's financial ability to clean them up.⁶⁷

B. Obstacles to Relief Under the Superfund

As a consequence of the program's budgetary constraints, the Superfund is more likely to deal with imminent, large-scale pollution threats such as toxic waste dumps, brownfields,⁶⁸ and widespread industrial pollution. As such, it is unlikely to address the cleanup of "toxic tide"⁶⁹ from the relatively small property claims of adversely affected individuals in New Orleans.⁷⁰ For this reason, many commentators have noted that the Superfund simply does not "adequately resolve the issue of natural resource damages on private property."⁷¹

One of the many reasons for the creation of the Superfund was to provide private parties with a mechanism through which they could recover cleanup costs incurred as a result of the actions of an industrial polluter.⁷² Considering the fact that much of the environmental damage stemming from Hurricane Katrina and other natural disasters was wrought by commercial pollution from oil and chemical producers,⁷³ it would be useful for private homeowners to utilize the Superfund as a means to recoup some of their cleanup costs from these corporate polluters. However, even if such homeowners are able to meet the require-

⁶⁶ Feldman, *supra* note 17, at 320.

⁶⁷ Reitze, *supra* note 65, at 368.

⁶⁸ See generally Environmental Protection Agency, Brownfields Cleanup and Redevelopment, <http://www.epa.gov/swerosps/bf/> (last visited Apr. 15, 2007).

⁶⁹ Knickerbocker & Jonsson, *supra* note 4.

⁷⁰ See Michael A. Walker, *CERCLA's Natural Resource Damage Provisions: A Loophole for Private Landowners?*, 9 ADMIN. L.J. AM. U. 425, 443 (1995).

⁷¹ *Id.*

⁷² See Environmental Protection Agency, Superfund Cost Recovery, <http://www.epa.gov/region5/defs/html/rcra.htm> (last visited Apr. 15, 2007) (describing the recoverable costs of private parties under the Superfund).

⁷³ Betsy McKay, *Katrina Oil Spill Clouds Future of Battered Suburb: Health Concerns Loom Large for Waiting Homeowners*, WALL ST. J., Jan. 3, 2006, <http://www.corpwatch.org/article.php?id=13016> ("Hurricane Katrina triggered 575 petroleum and hazardous chemical spills. . . . Ten of the biggest spills in Louisiana caused by the hurricane add up to about eight million gallons.").

ments for recovery, the Fund is often ineffective due to the overriding bankruptcy protections afforded to many businesses found liable through the Act.⁷⁴ Indeed, “as a result of the high costs, many of those found liable under CERCLA are forced into bankruptcy for relief” which “frustrates the goals of the act.”⁷⁵

In addition to bankruptcy, some corporations and individuals may wish to abandon or transfer their interests to those willing and able to take on the considerable task of environmental cleanup following a natural disaster. However, “[t]o the extent that a person continues to own or use land there is a continuing obligation to comply with environmental laws, and a person may not be permitted to transfer or legally abandon the site.”⁷⁶ Thus, environmental groups seeking to acquire polluted land⁷⁷ may be thwarted in their efforts due to the numerous statutory obstacles embedded in Superfund legislation.

Furthermore, many corporations and private individuals may seek the protections of the infamous “act of God” provision of CERCLA in order to escape potential liability for environmental cleanup.⁷⁸ This exception protects polluters only if the environmental damage “results solely from a grave natural disaster and if that grave natural disaster is wholly unanticipated.”⁷⁹ Consequently, “grave natural disasters which could not be anticipated in the design, location, or operation of the facility . . . by reason of historic, geographic, or climatic circumstances or phenomena would be outside the scope of the owner’s or operator’s responsibility.”⁸⁰ Although this seems like a straightforward definition, there are a variety of stringent requirements and bureaucratic obstacles for claiming an “act of God” defense.⁸¹ Indeed, its usage and application has been significantly limited to date, and any “contributory causation by human acts or omissions not covered by another CERCLA defense would vitiate an act of God defense.

⁷⁴ See generally Jason V. Stitt, *The Dischargeability of Environmental Claims in Bankruptcy: Resolution of Diametrically Opposed Goals*, 17 J. NAT. RESOURCES & ENVTL. L. 27 (2002-2003).

⁷⁵ *Id.*

⁷⁶ Reitze, *supra* note 65, at 424-25.

⁷⁷ See generally Feldman, *supra* note 17.

⁷⁸ See Environmental Protection Agency, Superfund Liability Defenses, Exemptions and Protections, <http://www.epa.gov/compliance/cleanup/superfund/liability.html> (last visited Apr. 15, 2007).

⁷⁹ Sabine Towing & Transp. Co., Inc. v. United States, 666 F.2d 561 (Ct. Cl. 1981).

⁸⁰ *Id.* at 564.

⁸¹ See generally Ralph M. Sugg, *Blame It On The Rain? El Niño Is No Excuse to Pollute*, 21 WHITTIER L. REV. 737 (2000).

Not surprisingly, this defense has seldom been invoked.⁸² As a result of its limited usage yet sweeping grant of immunity, the government, corporations, and private individuals spend vast amounts of time and money waging court battles to either restrict or expand its usage, causing significant delays in environmental cleanup operations⁸³ to the detriment of all citizens.

In fact, the Superfund is currently plagued by both a bloated bureaucracy⁸⁴ and frequent, “costly litigation induced by Superfund’s rule of liability” that “decreases the supply of cleanup activity.”⁸⁵ Consequently, the “act of God” and bankruptcy protections exasperate the government’s efforts not only by causing costly delays, but more importantly, by putting the entire burden of cleanup costs on an arguably overtaxed electorate and undercapitalized federal environmental and emergency agencies. To ameliorate this situation, courts must construe the “act of God” defense narrowly so as to discourage litigators from invoking it except in truly unforeseeable cases.

IV. BEYOND THE SUPERFUND: OTHER SYSTEMIC CONSIDERATIONS

A. *Federal Disaster Relief*

With the Disaster Relief Act of 1974,⁸⁶ Congress began implementing standardized procedures for providing federal relief to citizens affected by natural disasters. Currently, federal aid following a natural disaster “may include housing for up to 18 months, low-interest loans for uninsured property losses, and dollar grants for those unable to repay loans. Homeowners can qualify for up to \$200,000 for home repairs and \$40,000 for replacement of personal property.”⁸⁷ When one considers that “[t]he U.S. national average purchase price for a single-family home reached

⁸² See Lewis M. Barr, *CERCLA Made Simple: An Analysis of the Cases Under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980*, 45 BUS. LAW. 923, 985 (1990).

⁸³ Yandle, *supra* note 57, at 46 (describing the problems associated with the overly-litigious nature of the Superfund scheme).

⁸⁴ *Id.* at 34 (detailing the proportion of Superfund expenditures used to “cover administrative costs”).

⁸⁵ *Id.* at 46.

⁸⁶ Disaster Relief Act of 1974, Pub. L. No. 93-288, 88 Stat. 143 (1974).

⁸⁷ Natalie R. Cohen, *The Impacts of Natural Disasters on Municipal Finance*, American Planning Association, PLANNING ADVISORY SERV. MEMO, Mar. 1996, at 1, available at <http://www.planning.org/katrina/pdf/PINMar96.pdf>.

\$264,540 in October 2004”⁸⁸ and “[a]verage U.S. home prices increased 12.50 percent from the first quarter of 2004 through the first quarter of 2005,”⁸⁹ these figures pale in comparison to the actual cost of homeowners’ post-disaster reconstruction efforts. Furthermore, the primary thrust of the federal grant programs are to provide economic relief for rebuilding and repairing damaged structures in the short term.⁹⁰ The statutes give little attention to environmental cleanup efforts, and it is unjust to force homeowners to ration what few dollars have been made available among safety, physical health, economic livelihood, and environmental restoration.

In addition to the financial limitations of federal disaster relief programs, many recent federal efforts are beset by extreme bureaucratic inefficiency⁹¹ and fiscal mismanagement.⁹² Nearly three months after Hurricanes Katrina and Rita ravaged the Gulf region, “only about 5,000 of the 225,000 possible [National Flood Insurance Program] claims [had] been settled.”⁹³ In addition, federal authorities have proven themselves ineffective in helping individuals pursue remedies via private insurance,⁹⁴ which further exacerbates the budgetary constraints of private homeowners who must then resort to costly legal countermeasures in order to secure funding.⁹⁵ Consequently, critics of federal disaster relief efforts have commented that “individual disaster aid programs work with varying degrees of effectiveness and generally low degrees of efficiency.”⁹⁶

In addition, federal relief efforts continue to be plagued by a severe lack of funding, even for purportedly self-sustaining programs like the National Flood Insurance Program. In a recent report released by the Government Accountability Office (“GAO”), U.S. Comptroller General

⁸⁸ Robert Longley, *Average Home Price Tops \$264,000 in October*, ABOUT.COM, <http://usgovinfo.about.com/od/consumerawareness/a/avghomeprice04.htm>.

⁸⁹ Press Release, Office of Federal Housing Enterprise Oversight, U.S. House Prices Continue to Rise Rapidly (June 1, 2005), <http://www.ofheo.gov/media/pdf/1q05hpi.pdf>.

⁹⁰ NORDSTROM, *supra* note 50, at 223 (“Politicians respond readily to emergency actions that focus on repair but quickly lose their interest in support for long-term projects.”).

⁹¹ Sar, *supra* note 47, at 145.

⁹² O’Toole, *supra* note 13 (“Post disaster spending in recent decades has been notorious for abuse and waste.”).

⁹³ Fairbank & LaFleur, *supra* note 55. *See also* Disaster Mitigation and Cost Reduction Act of 1999, H.R. REP. NO. 106-40 (1999) (discussing funding available for home repairs and money available to individuals through federal grant and loan programs).

⁹⁴ Fairbank & LaFleur, *supra* note 55.

⁹⁵ *See generally* Laura Parker, *After Katrina, Courts Flooded by Lawsuits*, USA TODAY, Jan. 15, 2006, http://www.usatoday.com/news/nation/2006-01-15-katrina-suits_x.htm. *See also* *State Farm Liable in Katrina Case*, *supra* note 55.

⁹⁶ Sar, *supra* note 47, at 145.

David M. Walker remarked that the NFIP “is essentially bankrupt” and that “FEMA officials estimate that Hurricanes Katrina and Rita will result in flood insurance claims of about \$23 billion, far surpassing the total amount of claims paid in the entire history of the [program] through 2004.”⁹⁷ Furthermore, in a sign of things to come, FEMA’s ability to borrow from the U.S. Treasury was recently increased “from \$1.5 billion prior to the 2004 hurricane season to \$18.5 billion through fiscal year 2008.”⁹⁸

B. Eminent Domain

With the recent Supreme Court decision of *Kelo v. City of New London*,⁹⁹ state, local, and federal officials will have an easier time exercising eminent domain in order to correct the considerable economic and environmental blight which frequently accompanies natural disasters. In fact, this newly conferred authority recently manifested itself in a recovery proposal outlined by government officials in New Orleans that included a “federally funded forced buyout of homes in neighborhoods deemed unlivable.”¹⁰⁰

In addition, the federal government increasingly can rely on the authority granted by the Robert T. Stafford Disaster Relief and Emergency Assistance Act¹⁰¹ to purchase damaged real property with qualified government buyouts as prescribed under the Uniform Relocation Assistance and Real Property Acquisition Policies Act, which pertains to persons displaced by natural disasters.¹⁰²

⁹⁷ U.S. GOV'T ACCOUNTABILITY OFFICE, REP. NO. GAO-06-442T, HURRICANE KATRINA: GAO'S PRELIMINARY OBSERVATIONS REGARDING PREPAREDNESS, RESPONSE, AND RECOVERY 38 (2006) (statement of David M. Walker, Comptroller General of the United States), available at <http://www.gao.gov/new.items/d06442t.pdf>. See also Ben Evans, Sales of Federal Flood Insurance Rise (Jan. 5, 2007), <http://www.washingtonpost.com/wp-dyn/content/article/2007/01/05/AR2007010501361.html> (“The [NFIP] was self-financed for decades until the storms of 2005 wrecked its finances. It expects to be about \$20 billion in debt to the Treasury once all claims are paid.”).

⁹⁸ U.S. GOV'T ACCOUNTABILITY OFFICE, *supra* note 97, at 38-39.

⁹⁹ *Kelo v. City of New London, Conn.*, 545 U.S. 469 (2005). See also Lane, *supra* note 18.

¹⁰⁰ Kim Cobb, *New Orleans Residents are Enraged Over Recovery Plan*, HOUSTON CHRON., Jan. 12, 2006, <http://www.chron.com/disp/story.mpl/front/3581613.html>.

¹⁰¹ Robert T. Stafford Disaster Relief and Emergency Assistance Act, Pub. L. No. 93-288, § 101, 88 Stat. 143, 143 (1974) (codified as amended at 42 U.S.C. § 5121 (2007)) (evidencing a Congressional intent to “[encourage] hazard mitigation measures to reduce losses from disasters, including development of land use and construction regulations”).

¹⁰² See Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, Pub. L. No. 91-646, 84 Stat. 1894, 1894 (1971) (codified as amended at 42 U.S.C. § 4601

Further, government entities have begun to preemptively exercise their eminent domain power as a “flood hazard mitigation technique”¹⁰³ designed to lessen the potential risk of flood damage even *before* a natural disaster strikes.¹⁰⁴ Lastly, the Upton-Jones Amendment to the National Flood Insurance Program stresses relocation instead of continual reconstruction by authorizing the use of “up to 40% of the [NFIP-insured] value” of homes covered by the program for relocating the “threatened house rather than paying a larger amount to help rebuild it, only to see the rebuilt house destroyed in a subsequent storm, and paying to rebuild again . . . and again.”¹⁰⁵

While many of these federal initiatives are a step in the right direction and should be encouraged accordingly, as this Note will explore in the following sections, greater government involvement in disaster relief frequently precipitates a wide array of new challenges.

V. WHERE THE COST SHOULD LIE: APPORTIONING LIABILITY FOR ENVIRONMENTAL DISASTERS

A. *The Expanding Role of the Federal Government*

As evidenced by the preceding sections, a variety of factors have prompted the noticeable shift towards federally-subsidized disaster relief.¹⁰⁶ Among these factors are the decreasing role of the private insurance industry in disaster relief,¹⁰⁷ the expanding role of the federal government in apportioning money to adversely affected citizens,¹⁰⁸ and the increasing willingness of government officials to exercise powers of eminent domain to correct environmental problems stemming from natural disasters.¹⁰⁹ On the one hand, it must be noted that even this expanding influence has often been inadequate to meet the needs of many ill-equipped

(2007)) (attempting to “establish uniform and equitable land acquisition policies for Federal and federally assisted programs”).

¹⁰³ Barnhizer, *supra* note 14, at 351.

¹⁰⁴ *Id.*

¹⁰⁵ BUSH ET AL., RULES OF THE SEA, *supra* note 9, at 93-94.

¹⁰⁶ *See id.* at 4 (characterizing current federal relief efforts as large, counterintuitive entitlements).

¹⁰⁷ *See generally* Consumers Union Press Release, *supra* note 59.

¹⁰⁸ H. JOHN HEINZ III CTR. FOR SCI., ECON. & THE ENV'T, *supra* note 2, at 12-13 (“Costs of disasters to the federal government have been rising dramatically.”).

¹⁰⁹ *See generally* Barnhizer, *supra* note 14.

homeowners in their cleanup efforts,¹¹⁰ and thus an argument could be made that greater government involvement should be encouraged. On the other hand, one must inquire whether the nearly insurmountable economic and environmental damage stemming from natural disasters is a result of the increasing willingness for the federal government to rescue individuals engaging in riskier, more environmentally harmful development practices.¹¹¹

B. Moral Hazard¹¹² Engendered by Government Action

The alleged shift towards a publicly subsidized natural disaster relief effort has drawn mounting criticism.¹¹³ In his article on the subject, Daniel D. Barnhizer argues that “current government responses to flooding . . . promote and maintain unwise development in coastal floodplains.”¹¹⁴ Barnhizer articulates in great detail how “government entities continue to expend hundreds of millions of dollars annually to repair repeated and foreseeable damage to unwise and unsustainable private development.”¹¹⁵ This issue of “moral hazard”¹¹⁶ is troublesome in many ways. First and foremost, it causes private developers to engage in riskier development projects with the knowledge that they will be able to rely on large government subsidies and bailouts to recoup their investments in the event of a devastating natural disaster.¹¹⁷ In essence, such developers are exploiting the overwhelming empathy and generosity which normally accompanies a natural disaster of the size and scope of Hurricane Katrina for personal gain,¹¹⁸ inevitably increasing “taxpayer exposure to

¹¹⁰ See Walker, *supra* note 70, at 426.

¹¹¹ See BUSH ET AL., RULES OF THE SEA, *supra* note 9, at 4 (“We are contributing to a giant welfare system in which high-risk development is encouraged and then rewarded when disaster strikes!”).

¹¹² O’Toole, *supra* note 13 (discussing the issue of “moral hazard,” a phenomenon “whereby generosity promotes risk, by increasing the expectations of local residents . . . about the future federal response . . . the danger is . . . people will rebuild in dangerous areas with the expectation that the federal government’s deep pockets will bail them out”).

¹¹³ See NORDSTROM, *supra* note 50, at 217 (detailing how various groups have expressed a desire to “end public subsidies to private development in hazard areas and break the build-destroy-rebuild cycle”).

¹¹⁴ Barnhizer, *supra* note 14, at 296.

¹¹⁵ *Id.*

¹¹⁶ O’Toole, *supra* note 13.

¹¹⁷ *Id.*

¹¹⁸ H. JOHN HEINZ III CTR. FOR SCI., ECON. & THE ENV’T, *supra* note 2, at 2 (“[D]epending upon their insurance coverage and eligibility for federal assistance of various types, victims can transfer much of the economic consequences of disaster damage to other levels of society.”).

fund this cycle of repair and reconstruction,"¹¹⁹ and placing unnecessary strains on vulnerable environmental areas and important public emergency response capabilities.

C. *State and Local Environmental Enforcement Schemes*

Some commentators have argued that the federalization of disaster relief, particularly in the environmental arena, is a disturbing trend, and greater authority for setting and enforcing environmental standards should be delegated to the state and local level.¹²⁰ However, such critics largely ignore the problems of "uneven state [regulatory] performance,"¹²¹ negative externalities resulting from a lack of uniform state and local environmental commitments,¹²² and the increasing political complexity of environmental regulation.¹²³ This section examines each issue in turn.

Currently, states exercise tremendous freedom in setting and enforcing environmental policy.¹²⁴ "States collectively issue more than 90 percent of all environmental permits, complete more than 75 percent of all environmental enforcement actions, and rely on the federal government for only 20 percent of their total funding."¹²⁵ However, with greater autonomy comes growing regulatory disparity. Coastal environmental "state programs vary widely in the absence of national . . . standards,"¹²⁶ and even when mandatory federal standards *are* in place, states are frequently lax in their overall enforcement.¹²⁷ Moreover, there is little

¹¹⁹ Barnhizer, *supra* note 14, at 342.

¹²⁰ See generally David Schoenbrod, *Why States, Not EPA, Should Set Pollution Standards*, in ENVIRONMENTAL FEDERALISM 266 (Terry L. Anderson & Peter J. Hill eds., 1997). See also Whoriskey, *supra* note 42 (quoting Donald E. Powell, Federal Coordinator of Gulf Coast Rebuilding, as stating, "[f]ederal tax dollars should not be used to rebuild in places that repeatedly flood or are damaged due to Mother Nature—in New Orleans or elsewhere").

¹²¹ Barry G. Rabe, *Power to the States: The Promise and Pitfalls of Decentralization*, in ENVIRONMENTAL POLICY: NEW DIRECTIONS FOR THE TWENTY-FIRST CENTURY 33, 42 (Norman J. Vig & Michael E. Kraft eds., 2003) (citation omitted).

¹²² Scott A. Bollens, *Environmental and Economic Policies*, in GROWTH MANAGEMENT: THE PLANNING CHALLENGE OF THE 1990S, *supra* note 27, at 143, 144.

¹²³ See generally Donald F. Kettl, *Introduction* to ENVIRONMENTAL GOVERNANCE 1, 10 (Donald F. Kettl ed., 2002) (chronicling the complex state task of balancing "the intricate interrelationships of companies, interest groups, [and] cross-media pollution problems").

¹²⁴ Rabe, *supra* note 121, at 35.

¹²⁵ *Id.* at 34.

¹²⁶ NORDSTROM, *supra* note 50, at 194.

¹²⁷ Rabe, *supra* note 121, at 43 ("In 1998 a two-year examination of state enforcement and inspection practices by the EPA inspector general resulted in a scathing assessment of basic environmental implementation in a number of states . . . major violations of federal

indication that states with a relatively low commitment to regulatory enforcement are improving.¹²⁸

Such wide-ranging state environmental approaches require the federal government to be at the forefront of the regulatory effort to achieve a sensible, rational disaster relief policy capable of realizing full and fair economic and environmental recovery. Furthermore, it is only fair that we develop a federal approach since every American taxpayer is affected by coastal natural disasters, “even those far removed from the shore.”¹²⁹

Like the states, local governments also have wide-ranging environmental regulatory enforcement schemes and varied success rates.¹³⁰ One of the major reasons for such disparities is competition for the booming economic development on the coasts.¹³¹ Economic growth has become essential for the continued stability and vitality of local governments, leading some critics to comment that “[t]he very essence of a locality is its operation as a growth machine.”¹³² Consequently, cities and municipalities, in an effort to best the competition, may be more willing to approve unwise construction proposals in order to secure a continual stream of economic growth,¹³³ thereby endangering coastal ecosystems and exponentially increasing negative environmental externalities in neighboring areas.¹³⁴

The tendency for state and local officials to compete for economic growth may lead to their easily becoming beholden to special interests.¹³⁵

environmental laws often go unreported . . . [and] permit deadlines are routinely ignored.”) (citation omitted).

¹²⁸ *Id.* at 42.

¹²⁹ BUSH ET AL., RULES OF THE SEA, *supra* note 9, at 3.

¹³⁰ See, e.g., Local Government Environmental Assistance Network, Regulatory Information, <http://www.lgean.org/html/regs.cfm> (last visited Apr. 15, 2007).

¹³¹ International Year of the Ocean, *supra* note 26.

¹³² KENT E. PORTNEY, TAKING SUSTAINABLE CITIES SERIOUSLY 103 (2003) (citing Harvey Molotch, *The City as Growth Machine: Toward a Political Economy of Place*, 82 AM. J. OF SOC. 309 (1976)). See also BUSH ET AL., RULES OF THE SEA, *supra* note 9, at 168 (describing the view of some politicians that continued economic development is the nation’s “manifest destiny”).

¹³³ PORTNEY, *supra* note 132, at 101 (“Not all cities have the luxury of being able to choose what kinds of economic development they will accept, and indeed the ‘beggars can’t be choosers’ mentality is alive and well in many U.S. cities.”).

¹³⁴ Bollens, *supra* note 122, at 144 (“Fragmentation of growth management efforts encourages policymakers in one locality to ignore the harmful effects of their local decisions (such as environmental degradation or increased traffic congestion) felt by individuals outside their borders.”).

¹³⁵ Kettl, *supra* note 123.

As such, branches of the federal government, particularly administrative agencies like the EPA, are in a better position to implement significant, lasting reform intended to safeguard coastal environments as well as ensure “smart growth”¹³⁶ along the nation’s shores.

D. Cultivating a Measured Political Response and Mobilizing a Disconnected American Electorate

While a federally-mandated initiative to curb unchecked coastal development and reform taxpayer-funded disaster relief appears to be the most effective solution, it remains necessary to identify and elaborate upon existing policies at the federal level. First, while U.S. presidents have been declaring federal disaster areas with greater frequency,¹³⁷ leading to skyrocketing federal spending,¹³⁸ these expenditures have been aimed primarily at short-term rebuilding projects rather than truly sustainable solutions.¹³⁹ As indicated by President Bush’s *carte blanche* attitude towards rebuilding New Orleans following Hurricane Katrina,¹⁴⁰ it is easier for politicians at the national level to perpetuate the oft-criticized “cycle of repair and reconstruction”¹⁴¹ than examine its underlying causes. Even initiatives aimed at restoring accountability and personal responsibility, such as the self-sustaining and “mandatory”¹⁴² aspects of programs like the National Flood Insurance Program, are not immune from the turbulent political forces brought on by great natural disasters. In fact, “[p]erhaps the greatest shortcoming of the NFIP is that the policy of ‘no federal assistance’ to the uninsured is frequently circumvented under political pressure in the poststorm relief/reconstruction period, undercutting the intent of the law and increasing the cost of disaster relief.”¹⁴³ Consequently, it is imperative that we remove such decisions from politicians, who are too easily manipulated by tempestuous impulses and political machinations. This Note proposes a built-in taxation scheme, outlined in

¹³⁶ PORTNEY, *supra* note 132, at 104.

¹³⁷ H. JOHN HEINZ III CTR. FOR SCI., ECON. & THE ENV'T, *supra* note 2, at 12-13.

¹³⁸ *Id.*

¹³⁹ NORDSTROM, *supra* note 50, at 223-24.

¹⁴⁰ See O'Toole, *supra* note 13.

¹⁴¹ Barnhizer, *supra* note 14, at 342.

¹⁴² Nothing Could Dampen the Joy of Home Ownership—Or Could it?, *supra* note 33 (“Flood Insurance may be required by law.”).

¹⁴³ BUSH ET AL., *EDGE OF THE GULF*, *supra* note 41, at 283.

the next section, to be levied against all high-risk development in vulnerable coastal areas, known as "v-zones."¹⁴⁴ This taxation scheme will serve as a means of distancing short-term political considerations from the federal disaster response. In so doing, the scheme will effectively restore some semblance of personal responsibility in the allocation of cleanup costs related to natural disasters.

Politicians deserve much of the blame for the untenable nature of federal disaster relief, but taxpayers themselves are surprisingly complicit in the current scheme. Indeed, "[t]axpayers readily finance disaster rescue and recovery costs, and efforts to impose emergency costs on the victims themselves remain unpopular."¹⁴⁵ This Note contends, however, that the reason for the apparent willingness of taxpayers to fund federal disaster relief efforts stems from a significant disconnect between the electorate and the general spending mechanism through which the government funds disaster relief. Although no study yet corroborates this claim, the average taxpayer is more likely to be inundated with images of suffering and destruction wrought by natural disasters than he or she is to become acquainted with the underlying systemic factors that exacerbate the level of destruction.¹⁴⁶ Taxpayers' feelings of outrage, compassion, and empathy help to rationalize the expenditure of large, abstract sums of federal money to help victims of natural disasters, even though taxpayers should instead be directing their ire at those knowingly taking advantage of the "public subsidies to private development in hazard areas."¹⁴⁷

Compounding this problem is the alleged decline in the public's trust in government and general feelings of alienation from the political process.¹⁴⁸ Furthermore, because this issue involves a variety of complex environmental issues, the public's distrust and alienation may be particularly heightened due to "difficulties of data access" and "data interpretation," leading to a situation wherein "citizens face obvious challenges in assimilating expertise sufficient to participate meaningfully in technical

¹⁴⁴ BUSH ET AL., *RULES OF THE SEA*, *supra* note 9, at 46.

¹⁴⁵ City, *supra* note 37, at 1538.

¹⁴⁶ See generally O'Toole, *supra* note 13 (describing the moral hazard problem associated with unchecked coastal development).

¹⁴⁷ NORDSTROM, *supra* note 50, at 217.

¹⁴⁸ See NAT'L COMM. ON THE ENV'T, *CHOOSING A SUSTAINABLE FUTURE* 52 (1993).

discussions.”¹⁴⁹ As such, it is imperative that any effective solution concentrate less on the dizzying intricacies of “v-zones,”¹⁵⁰ “erosion rates,”¹⁵¹ “externalities,”¹⁵² and “the moral hazard problem,”¹⁵³ and more on ensuring that the public truly understands that the “cycle of repair and reconstruction,”¹⁵⁴ wrought by unwise coastal development will affect every citizen’s environment¹⁵⁵ and checkbook¹⁵⁶ directly. A clearly articulated strategy coupled with a simple taxation scheme and equitable regulatory mechanism will result in the realization, finally, that of the underlying principle of existing environmental law: “polluter pays.”¹⁵⁷

VI. CONFRONTING THE ISSUE

A. *Introduction*

As the preceding sections have demonstrated, the United States faces a momentous challenge in both cultivating a measured political response and changing the average American taxpayer’s perspective on disaster relief. As Theodore Steinberg, a Professor of History at Case Western Reserve University, argues, the predominant view in this country is that natural disasters are simply “unpredictable acts of God.”¹⁵⁸ Even so, Steinberg contends that “we need to overcome [this] collective denial

¹⁴⁹ Christopher H. Foreman, Jr., *Civic Sustainability of Reform*, in ENVIRONMENTAL GOVERNANCE 162 (Donald F. Kettl ed., 2002).

¹⁵⁰ BUSH ET AL., RULES OF THE SEA, *supra* note 9, at 46.

¹⁵¹ See generally Jeffery A. Zinn, *Coastal Flooding, Erosion, and Sea Level Rise*, in CONG. RESEARCH SERV., ORDER CODE NO. 97-588, OCEANS & COASTAL RESOURCES: A BRIEFING BOOK (1997), available at <http://ncseonline.org/nle/crsreports/briefingbooks/oceans/o.cfm>.

¹⁵² Barnhizer, *supra* note 14, at 341.

¹⁵³ O’Toole, *supra* note 13.

¹⁵⁴ Barnhizer, *supra* note 14, at 342.

¹⁵⁵ BUSH ET AL., RULES OF THE SEA, *supra* note 9, at 94 (“Eroding beaches, removed dunes, disappearing forest cover, beach nourishment projects, and failing seawalls are examples of community problems that all individual property owners pay for, whether or not their property is directly involved.”).

¹⁵⁶ *Id.* at 3 (“Every federal taxpayer (even those far removed from the shore) also contributes through underwriting disaster assistance, the national flood insurance program, loans to communities to build . . . and the list of ‘donuts for disaster victims’ goes on.”).

¹⁵⁷ *Superfund Program: Status of Cleanup Efforts: Hearing Before the Subcomm. on Superfund, Waste Control, and Risk Assessment of the S. Comm. on Env’t and Pub. Works*, 106th Cong. 59 (2000) [hereinafter *Superfund Hearing*] (responses of Louis J. Schiffer to Additional Questions from Sen. Lautenberg).

¹⁵⁸ O’Toole, *supra* note 13.

about natural disaster and we need to budget for it and prepare for it.”¹⁵⁹ To do so, the government should take steps to strengthen existing laws as well as support innovative state and local policies.

First, the federal government must strictly enforce the provisions of the National Flood Insurance Program, particularly those which make the Program mandatory.¹⁶⁰ Furthermore, federal authorities should consider adopting proposals calling for the denial of “flood insurance and federal disaster assistance to current property owners located in coastal high-hazard areas whose housing and buildings do not meet the standard for new construction.”¹⁶¹ Strictly enforcing these existing standards and taking a firmer stance against unchecked development must be the first steps in any successful federal effort.

Second, the federal government should do more to encourage the adoption of state and local environmental policies aimed at “smart growth.”¹⁶² For example, “a number of communities have been imposing additional charges on developers” known as “impact fees.”¹⁶³ However, these fees are typically earmarked for projects such as “roads, schools, and parks, that are directly associated with the new development,”¹⁶⁴ and not problems such as erosion and post-disaster environmental cleanup costs that are exacerbated by such growth. To supplement these existing federal, state, and local measures, the government needs a strategy that effectively addresses the ultimate issue.

To begin, it is important to truly get back to the basics with an examination of what a “natural disaster” or “act of God” should mean in the context of federal disaster relief. As citizens, we too often let our emotion, empathy, and propensity for compassion and generosity cloud necessary thoughtful analysis, which engenders a desire to simply throw money at a problem¹⁶⁵ without first addressing underlying systemic concerns.

Modern courts have defined “acts of God” as “grave natural disasters which could not be anticipated in the design, location, or operation

¹⁵⁹ *Id.*

¹⁶⁰ Nothing Could Dampen the Joy of Home Ownership - Or Could it?, *supra* note 33.

¹⁶¹ BUSH ET AL., *EDGE OF THE GULF*, *supra* note 41, at 282-83.

¹⁶² PORTNEY, *supra* note 132, at 104.

¹⁶³ Marc T. Smith, *Evolution and Conflict in Growth Management*, in *GROWTH MANAGEMENT: THE PLANNING CHALLENGE OF THE 1990S*, *supra* note 27, at 49. *See also* Nicholas, *supra* note 27, at 208.

¹⁶⁴ Municipal Research and Services Center of Washington, Impact Fees, <http://www.mrsc.org/subjects/planning/impactpg.aspx?r=1> (last visited Apr. 15, 2007).

¹⁶⁵ *See* O'Toole, *supra* note 13.

of the facility.”¹⁶⁶ Although often used in a variety of contexts,¹⁶⁷ the term “act of God” encompasses the idea of *true* unforeseeability, which thereby negates the owner’s responsibility for the adverse consequences of the disaster.¹⁶⁸ Former Speaker of the House Dennis Hastert had the courage to question the wisdom of spending billions in taxpayer funded money to rebuild New Orleans, “a city that’s 7 feet under sea level.”¹⁶⁹ He eventually recanted the statement after facing a tremendous amount of backlash from the national media and the public.¹⁷⁰ While the timing of his statement may have caused him to appear insensitive, the underlying logic of his words should not have been discounted so quickly. The “historic, geographic, or climatic circumstances”¹⁷¹ of a location must once again become the central focus of a well-reasoned approach to the proper apportionment of liability for the cleanup costs associated with natural disasters. With this definition in mind, real estate developers who engage in reckless construction projects should not be able to ignore¹⁷² the long-term effects of their actions simply by claiming that economic and environmental damage wrought by their activities is an “act of God.”

B. Strengthening the Superfund

Strictly construing the definition of an “act of God” to exclude the reasonably foreseeable and preventable economic and environmental consequences of overzealous construction in low-lying floodplains¹⁷³ may permit the government to reapportion some of the rising costs of disaster

¹⁶⁶ *Sabine Towing & Transp. Co, Inc. v. United States*, 666 F.2d 561, 564 (Ct. Cl. 1981).

¹⁶⁷ *See Skandia Ins. Co. v. Star Shipping AS*, 173 F. Supp. 2d 1228, 1239 (D. Ala. 2001) (defining an act of God as “any accident, due directly and exclusively to natural causes without human intervention, which by no amount of foresight, pains, or care, reasonably to have been expected could have been prevented”).

¹⁶⁸ *See Sabine Towing*, 666 F.2d at 564; *see generally* Superfund Liability Defenses, Exemptions and Protections, *supra* note 78.

¹⁶⁹ *Hastert: Rebuilding New Orleans 'Doesn't Make Sense to Me'*, STAR TRIB. (Minneapolis), Sept. 1, 2005, http://www.startribune.com/dynamic/mobile_story.php?story=5592348.

¹⁷⁰ *See generally* Babington, *supra* note 15.

¹⁷¹ *Sabine Towing*, 666 F.2d at 564.

¹⁷² BUSH ET AL., RULES OF THE SEA, *supra* note 9, at 94.

¹⁷³ FED. EMERGENCY MGMT. AGENCY, THIS IS FEMA: A LOOK AT THE FEDERAL GOVERNMENT'S PRIMARY DISASTER RESPONSE AND RECOVERY RESOURCE (2004) [hereinafter THIS IS FEMA] (“FEMA also maps the nation’s floodplains to identify flood hazards and works with state and local officials to minimize flood risks.”).

relief to developers who willfully and recklessly engage in such conduct.¹⁷⁴ Such an outcome could also help discourage development in environmentally sensitive areas and relieve the onerous and unjust burden currently assigned to American taxpayers.¹⁷⁵ The Superfund itself already provides a useful mechanism through which such a goal may be realized.

First, the legislative intent behind the Superfund scheme is that the liable parties under the act are “those that are responsible for the contamination at a given site . . . the ‘polluter pays’ principle.”¹⁷⁶ Clearly, developers who engage in risky coastal construction projects and the buyers who willingly finance such initiatives would fit under such a definition. Second, there is already a clearly defined standard of liability under the Act, in which “the cost of restoring an injured natural resource to its pre-injury state [is] the measure of damages to be awarded in cases brought under CERCLA.”¹⁷⁷ Last, the overall scope of “natural resources” protected under the Act is also clearly and “broadly defined.”¹⁷⁸ As such, by bringing the destructive effects of high-risk coastal development under the Superfund umbrella, the federal government does not need to enact sweeping new legislation and wait for the judiciary to interpret each provision before liability can be imposed.

In addition, perhaps the most appealing feature of the Superfund is its emphasis on the court system to further private environmental recovery efforts.¹⁷⁹ Accordingly, environmental groups and concerned taxpayers alike should be encouraged to use the Superfund system in the wake of natural disasters in order to force private developers to bear a larger share of the considerable costs associated with environmental cleanup efforts. Further, adversely affected private homeowners could also use the Act as a means of supplementing federal disaster aid for the

¹⁷⁴ BUSH ET AL., RULES OF THE SEA, *supra* note 9, at 94 (describing the willful blindness of “developers and real estate interests” in regard to the environmental repercussions of their ongoing activities).

¹⁷⁵ *Id.* at 3.

¹⁷⁶ *Superfund Hearing*, *supra* note 157, at 59.

¹⁷⁷ Raymond J. Kopp & Kerry Smith, *Introduction* to VALUING NATURAL ASSETS 8 (Raymond J. Kopp & Kerry Smith eds., 1993).

¹⁷⁸ KEVIN M. WARD & JOHN W. DUFFIELD, NATURAL RESOURCE DAMAGES: LAW AND ECONOMICS 101 (1994) (“The term natural resources is . . . broadly defined by CERCLA as ‘land, fish, wildlife, biota, air, water, ground water, drinking water supplies, and other such resources belonging to, managed by, held in trust by, appertaining to, or otherwise controlled by the United States . . . [or] any State or local government.’”).

¹⁷⁹ *See Superfund Cost Recovery*, *supra* note 72.

environmental cleanup of private lands precipitated by unwise or overzealous development.¹⁸⁰ In this manner, homeowners can remedy the destructive effects of such occurrences as Hurricane Katrina's toxic tide¹⁸¹ and manmade coastal erosion.¹⁸²

The overall goal of expanding the scope of Superfund to include more environmentally sensitive areas in coastal regions is to both engender a migratory shift away from development in such vulnerable areas and to increase private accountability for reasonably foreseeable disasters set in motion by unfettered development. This plan requires a limit to the "act of God" exception to truly unforeseeable events with a more literal reading of the term "natural disaster." A multi-faceted effort would lessen the overall size and scope of the economic and environmental disasters, and similarly reduce the strain on the federal coffers, which would enable the federal government to address the more pressing needs of individuals affected by unforeseeable disasters. In other words, this restriction would provide a built-in mechanism for separating truly needy, innocent landowners from those who recklessly invited misfortune upon themselves.

VII. IMPLEMENTING AN EQUITABLE TAXATION SCHEME

A. *Providing Adequate Capitalization for the Superfund*

Now that this Note has explained the need to expand the Superfund's scope to include risky coastal development activities, it becomes necessary to develop a means to fund such a broad expansion. The current CERCLA funding scheme has resulted in a situation in which "most hazardous waste sites are unlikely to be cleaned up by the EPA because the number of sites in need of cleanup simply exceeds the EPA's resources."¹⁸³ Consequently, it would be unreasonable to expect that Congress would expand the scope of the Superfund to include more coastal developments in environmentally-sensitive areas without a commensurate increase in funding. As such, this Note proposes the implementation of a national sales tax on developments located in high risk coastal area flood zones (as defined by the Federal Emergency Management Agency as "V zones")¹⁸⁴

¹⁸⁰ BUSH ET AL., RULES OF THE SEA, *supra* note 9, at 94.

¹⁸¹ See Knickerbocker & Jonsson, *supra* note 4.

¹⁸² BUSH ET AL., RULES OF THE SEA, *supra* note 9, at 40.

¹⁸³ Reitze, *supra* note 65, at 368.

¹⁸⁴ FloodSmart.gov, Flood Zones Defined, <http://www.floodsmart.gov/floodsmart/pages/riskassessment/floodzonesdefined.jsp> (last visited Apr. 15, 2007) (defining "V zones" as

that are built in such a manner as is almost certain to result in considerable economic and environmental damage in the event of a strong hurricane or great flood. Not only would such a tax structure provide additional capitalization for the Superfund, but it would also promote more cautious development in coastal areas and greater responsibility for cleanup operations, thus accomplishing many of the same goals inherent in existing Superfund legislation.¹⁸⁵

B. The Importance of an Incentive Based Taxation Scheme

To encourage more cautious development, legislation must link the offending activity directly to the tax. Currently, funding for CERCLA comes “from a series of taxes, especially on crude oil and petrochemicals.”¹⁸⁶ However, “[t]here is no direct relationship between the creation of waste sites and the taxing structure of Superfund.”¹⁸⁷ Consequently, CERCLA lacks built-in disincentives to curb the offending activity.

Scores of economists¹⁸⁸ have written about the microeconomic effects of such built-in disincentives in businesses’ strategic decisions. Specifically, these disincentives impose economic costs on firms, leading to an “internalization of the externality,” wherein, for example, “the social costs of hazardous substance discharge and oil spills [are] taken into account in the firm’s decision making.”¹⁸⁹ As such, just as corporate polluters must take into account such costs in terms of fines and taxes, so too should risky coastal developers take into account the rising economic

“[c]oastal areas with a 1% or greater chance of flooding and an additional hazard associated with storm waves. These areas have a 26% chance of flooding over the life of a 30-year mortgage”).

¹⁸⁵ Kopp & Smith, *supra* note 177, at 28-29 (“In all parts of Superfund . . . Congress intended to [fashion] a powerful protective and compensatory mechanism based on a broad theory of cost internalization, primarily to give the costs of rectification back to the parties who benefitted, but also to provide a disincentive to future harmful conduct.”).

¹⁸⁶ Kent Jeffreys, *Amending Superfund: Reform or Revanche?*, REGULATION: THE CATO REV. OF BUS. & GOV’T, Winter 1994, <http://www.cato.org/pubs/regulation/reg17n1-jeffreys.html>.

¹⁸⁷ *Id.* See also Yandle, *supra* note 57, at 33 (arguing that CERCLA “taxes, like the income taxes paid by ordinary citizens, have nothing whatsoever to do with the behavior that creates the Superfund site”).

¹⁸⁸ A. Myrick Freeman III, *Economics, Incentives, and Environmental Policy*, in ENVIRONMENTAL POLICY: NEW DIRECTIONS FOR THE TWENTY-FIRST CENTURY 212 (Norman J. Vig & Michael E. Kraft eds., 2003) (“The pollution tax (or charge) strategy has long appealed to economists because it provides a sure and graduated incentive to firms by making pollution itself a cost of production.”).

¹⁸⁹ WARD & DUFFIELD, *supra* note 178, at 242.

cost in the form of a proposed national sales tax on further development in high-risk areas and they would pass such costs to the ultimate purchasers themselves rather than the average U.S. taxpayer.

C. Examples of Incentive Based Approaches in Other Contexts

A taxation scheme tied directly to the offending conduct is not a novel development in government regulation. Known as a "Pigouvian tax," this mechanism is "[a] standard solution" whereby a tax is levied at a "tax rate equal to the cost imposed by the external diseconomy."¹⁹⁰ Accordingly, this Note proposes the creation of a bipartisan, Congressionally-appointed panel of economists to collectively determine the proper rate of taxation for high-risk coastal development so as to accomplish the stated Superfund goal of restoring the costs of this development to the parties responsible for its unchecked proliferation while at the same time providing a stronger deterrent to such unfettered growth.¹⁹¹

Similar taxation schemes have proven successful in a variety of regulatory contexts. For instance, in Singapore, the government has implemented a series of taxes on commuters in order to "reduce urban motor vehicle congestion,"¹⁹² thereby linking these fees directly to the offending conduct so as to apportion responsibility for the problem on drivers themselves. Similarly, "[m]any states have become increasingly reliant on emissions or waste fees to provide both an economic disincentive to environmental degradation and a source of funds for program management."¹⁹³ Likewise, as discussed *supra*, some local governments have implemented a series of "impact fees"¹⁹⁴ tied directly to growth, but have not gone as far as this Note's proposal in addressing the environmental impact of high-risk coastal development. Further, even if some local governments were to successfully address the problem in a similar fashion, there is still the need for a uniform, national solution due to the overwhelming tendency of state and local environmental standards to "vary widely."¹⁹⁵

¹⁹⁰ *Id.* at 226.

¹⁹¹ Kopp & Smith, *supra* note 177, at 28-29.

¹⁹² WARD & DUFFIELD, *supra* note 178, at 228.

¹⁹³ Rabe, *supra* note 121, at 39.

¹⁹⁴ Smith, *supra* note 163, at 49.

¹⁹⁵ NORDSTROM, *supra* note 50, at 194.

D. The Last Step: Identifying Countervailing Programs

To successfully implement this Note's equitable taxation scheme, legislators must heed the advice of a great number of commentators who have called for the initiation of an "intensive, intergovernmental research effort . . . to identify federal, state, and local public policies that directly or indirectly promote growth and development that increase the vulnerability of communities to coastal disasters."¹⁹⁶ If the government were to overlook such policies, the disincentives built into the new scheme could lose their effectiveness because counterbalancing incentive programs elsewhere could mitigate the desired punitive effect. Additionally, it would be wise to identify any entrenched interests, such as the construction industry,¹⁹⁷ that will likely engage in increased lobbying efforts in an attempt to preserve the current publicly-subsidized "cycle of repair and reconstruction."¹⁹⁸

VIII. RECOGNIZING THE PROPOSAL'S LIMITATIONS

As this Note has articulated, the Superfund system currently covers only a small number of environmentally hazardous sites.¹⁹⁹ Although an expansion of its coverage and a new funding mechanism is a step in the right direction, it is impractical to think that a successful expansion of the Fund would be sufficient to solve all of the problems associated with natural disaster cleanup efforts. The Superfund may very well be an ineffective solution for dealing with the environmental cleanup costs of the average homeowner. Indeed, such an individual is even potentially liable for a variety of costs wrought by natural disasters.²⁰⁰ As such, the federal government must focus greater attention on environmental concerns arising from natural disasters²⁰¹ rather than simply seeking to restore homeowners financially. The current government response directed towards the average homeowner is arguably inadequate for both advising and assisting homeowners in assessing environmental damage for potential

¹⁹⁶ H. JOHN HEINZ III CTR. FOR SCI., ECON. & THE ENV'T, *supra* note 2, at xxvii.

¹⁹⁷ BUSH ET AL., RULES OF THE SEA, *supra* note 9, at 169 ("The construction industry prospers in the post-storm rush to rebuild.").

¹⁹⁸ Barnhizer, *supra* note 14, at 342.

¹⁹⁹ See Reitze, *supra* note 65, at 368.

²⁰⁰ N.C. State University Website, Agricultural and Resource Economics, <http://www.ag-econ.ncsu.edu/Isabelfacts.htm> (last visited Apr. 15, 2007) (noting that "improper treatment of hazardous wastes after floods may result in liability to the landowner").

²⁰¹ See H. JOHN HEINZ III CTR. FOR SCI., ECON. & THE ENV'T, *supra* note 2, at 83, 93.

health, economic, and legal risks.²⁰² Greater efforts must be made to assist those individuals who are adversely affected by natural disasters through no fault of their own.

The continuing theme of this Note is that a measured approach by the government should not be devoid of all references to personal responsibility. Just as this Note's proposed Superfund expansion is aimed at returning some semblance of responsibility based upon common tort notions of reasonableness and foreseeability, so too should federal law be aimed at fairly apportioning disaster-related cleanup costs. California can be regarded as one of the leaders in such an effort, as it has sought to impose a reasonable care standard of liability in landslide and surface water cases.²⁰³

A variety of other salient issues arise with the realization that the Superfund cannot extend to every situation involving natural disasters. While CERCLA has been known to restrict a landowner's right to abandon or transfer an interest in polluted land,²⁰⁴ the common law has traditionally favored the free transferability and alienability of real property.²⁰⁵ "Many courts refused to impose restrictions on a trustee's right to abandon property, regardless of the level of environmental contamination present at such property."²⁰⁶ Abandonment thus provides a significant obstacle to the successful realization of a full and fair environmental cleanup effort. While the goal should be to inevitably restore a certain level of personal responsibility in cleanup efforts, we must be wary of neglecting those with legitimate needs sustained through little or no fault of their own. The objective is to find a balance between exacerbating the moral hazard problem²⁰⁷ associated with the reckless, unfettered development of environmentally-sensitive coastal regions and cutting off important sources of relief to the detriment of private homeowners, local communities, and the nation at

²⁰² See, e.g., Poll: Katrina Response Inadequate (Sept. 8, 2005), <http://www.cbsnews.com/stories/2005/09/08/opinion/polls/main824591.shtml>. See also Whoriskey, *supra* note 42 ("Raising a house can cost upwards of \$50,000 . . . The federal government offers grants of as much as \$30,000 for repairs, but in many cases more is required.").

²⁰³ See generally Robert B. Olshansky & J. David Rogers, *The Concept of "Reasonable Care" on Unstable Hillsides*, Anaheim Hills Landslide Update Website (1996), <http://anaheim-landslide.com/care.htm>.

²⁰⁴ See Reitze, *supra* note 65, at 425.

²⁰⁵ See, e.g., *Armstrong v. Douglass*, 89 Tenn. 219, 222 (1890) ("The law favors free alienation of property and abhors perpetuities.").

²⁰⁶ Harvey R. Miller et al., *Issues Affecting Secured Creditors Regarding Environmental Matters in Bankruptcy Cases*, in DEALING WITH SECURED CLAIMS AND STRUCTURED FINANCIAL PRODUCTS IN BANKRUPTCY CASES 309 (2002).

²⁰⁷ See O'Toole, *supra* note 13.

large.²⁰⁸ Luckily, courts typically restrict abandonment in cases where there is “‘imminent and identifiable’ environmental harm[,] and have not allowed violations of state environmental laws to be a barrier to abandonment where no immediate health risk was presented by the abandonment.”²⁰⁹ This balanced, measured approach to the delicate issue of abandonment thus appears to be a good compromise.

With this in mind, the government should be prepared in the aftermath of Hurricane Katrina for a greater number of private homeowners and businesses to abandon polluted property due to a severe lack of the economic means to properly address the problem.²¹⁰ Consequently, the government should encourage the efforts of environmental groups, who have the capital to engender a positive transformation, to acquire polluted land,²¹¹ even to the point of exercising eminent domain²¹² and encouraging relocation²¹³ in situations where no other alternatives present themselves. In addition, the government should use all available means at their disposal, such as the Resource Conservation and Recovery Act (RCRA), while simultaneously recognizing the strengths and weaknesses of each measure. The “RCRA focuses only on active and future facilities and does not address abandoned or historical sites.”²¹⁴ With a coordinated, consistent, and measured effort, the government can effectively deal with the impending crisis.

CONCLUSION

The current federal measures aimed at tackling the detrimental effects of natural disasters in the United States have created a network of patchwork solutions that, although well-intentioned, are sometimes

²⁰⁸ BUSH ET AL., RULES OF THE SEA, *supra* note 9, at 94 (“Eroding beaches, removed dunes, disappearing forest cover, beach nourishment projects, and failing seawalls are examples of community problems that all individual property owners pay for, whether or not their property is directly involved.”).

²⁰⁹ *Id.* at 335.

²¹⁰ Rikoon, *supra* note 8.

²¹¹ For an in depth discussion of such efforts by environmental groups, see Feldman, *supra* note 17, at 320.

²¹² See generally Barnhizer, *supra* note 14, at 351 (discussing government “flood hazard mitigation technique[s]”).

²¹³ BUSH ET AL., EDGE OF THE GULF, *supra* note 41, at 283.

²¹⁴ Environmental Protection Agency, Resource Conservation and Recovery Act, <http://www.epa.gov/region5/defs/html/rcra.htm> (last visited Apr. 15, 2007).

inefficient,²¹⁵ wasteful,²¹⁶ and even counterproductive.²¹⁷ Too often the political response has been characterized by emotional zeal rather than a cautious, rational, and detached approach that is necessary for the creation of lasting and truly effective solutions. Even more troubling is the fact that those commentators brave enough to challenge the firmly established federally subsidized "cycle of repair and reconstruction,"²¹⁸ have been met with disdain and contempt at their perceived lack of compassion.²¹⁹

To combat the moral hazard problem²²⁰ arising from such a system, it is necessary to forge a thoughtful balance between compassion and reason in an attempt to both tackle the problem of federally insuring reckless coastal development²²¹ and still legitimately help those individuals beset by truly unforeseeable natural disasters.

The first way in which such a balance can be attained is to expand the current Superfund system to cover overzealous coastal construction projects that not only put the lives and property of an increasing number²²² of citizens at risk, but also endanger large environmentally-sensitive areas.²²³ But the Superfund is already overextended and undercapitalized, and it is likely that private land in residential neighborhoods will be overlooked without an increase in both the scope and funding of the program. This increase in scope can be realized by reevaluating the term "natural disaster" and restricting the "act of God" defense embedded in the legislation to cover only those events associated with wholly natural disasters that are truly unforeseeable. In so doing, this change will ensure that heretofore unchecked developers can no longer take a "head in the sand" attitude²²⁴ towards unwise coastal development.

Likewise, the greater funding needs of the program could be met through a national sales tax on coastal developments in certain areas specifically enumerated by the EPA,²²⁵ such as those in floodplains and other environmentally sensitive or inherently dangerous areas across

²¹⁵ Sar, *supra* note 47, at 145.

²¹⁶ O'Toole, *supra* note 13 (discussing problems of "abuse and waste" in recent disaster relief efforts).

²¹⁷ See generally BUSH ET AL., RULES OF THE SEA, *supra* note 9, at 4.

²¹⁸ Barnhizer, *supra* note 14, at 342.

²¹⁹ See generally *Weatherproofing the U.S. Hearing*, *supra* note 1.

²²⁰ O'Toole, *supra* note 13.

²²¹ See generally BUSH ET AL., RULES OF THE SEA, *supra* note 9, at 4.

²²² Verrengia, *supra* note 19.

²²³ BUSH ET AL., RULES OF THE SEA, *supra* note 9, at 94.

²²⁴ *Id.*

²²⁵ See THIS IS FEMA, *supra* note 173.

the country.²²⁶ The new taxation scheme should be implemented by a bipartisan, Congressionally-appointed panel of economists whose task will be to collectively determine the proper rate of taxation for high-risk coastal development so as to be consistent with the overall goals and founding principles that underlie the existing Superfund scheme.²²⁷ The new fee, a standard "Pigouvian tax,"²²⁸ will be directly tied to the offending conduct in order to restore some semblance of accountability and personal responsibility for the problems associated with unchecked coastal development.

The proposed scheme will be supplemented with a firm national commitment to enforce existing environmental laws such as the mandatory provisions of the NFIP, as well as greater federal support for innovative state and local environmental initiatives. This measured political response will be bolstered by greater public awareness campaigns regarding the "cycle of repair and reconstruction,"²²⁹ and a comprehensive federal research effort to identify and eliminate government policies that might hinder the overall effectiveness of the proposed tax scheme.²³⁰

A multifaceted approach could mitigate the problems associated with rising costs, more frequent and more intense natural disasters, and limited availability of funds and government programs to deal with environmental clean-up costs. The strengthening of the Superfund, coupled with alternative proposals such as the exercise of eminent domain for the private²³¹ or public²³² acquisition of polluted or abandoned lands, could create a comprehensive, highly effective solution to tackling the nation's growing natural disaster-related cleanup concerns.

²²⁶ See BUSH ET AL., RULES OF THE SEA, *supra* note 9, at 46.

²²⁷ Kopp & Smith, *supra* note 177, at 28-29.

²²⁸ WARD & DUFFIELD, *supra* note 178, at 226.

²²⁹ Barnhizer, *supra* note 14, at 342.

²³⁰ H. JOHN HEINZ III CTR. FOR SCI., ECON. & THE ENV'T, *supra* note 2, at xxvii (proposing such a comprehensive federal effort).

²³¹ For an in depth discussion of such efforts by environmental groups, see Feldman, *supra* note 17, at 320.

²³² Cobb, *supra* note 100.