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Tough Love: Should We Analyze Federal Emergency Management Agency Disaster Planning Under the National Environmental Policy Act?

Katherine Hausrath*

Introduction

The country sat transfixed, watching the streets of New Orleans fill with water in the wake of Hurricane Katrina. On the Internet, on the evening news, and in print journalism, increasingly desperate people begged for government assistance.¹ The mayor of New Orleans, C. Ray Nagin, pleaded for help from federal officials. Their calls highlighted the fact that many coastal areas cannot adequately respond to hurricanes without federal assistance.

Tropical storms have been increasing in intensity since the middle of the last century.² The 2005 hurricane season saw a record-breaking 27 tropical storms; their names used Greek letters for the first time, because more than 21 named storms had occurred.³ Despite the risk, people continue to locate in hurricane-prone coastal areas⁴ and continue to rebuild after each natural disaster. At first glance, rebuilding, even in a hurricane zone, seems like the natural human reaction. As President George W. Bush stated after Hurricane

* Assistant Attorney General for Environmental Enforcement, Office of the Illinois Attorney General. This article does not reflect the opinion of the Office of the Illinois Attorney General.

1. Josh White & Peter Whoriskey, *Planning, Response Are Faulted*, WASH. POST, Sept. 2, 2005, at A1, available at <http://www.washingtonpost.com/wp-dyn/content/article/2005/09/01/AR2005090102428.html>.

2. Kerry Emanuel, *Increasing Destructiveness of Tropical Cyclones Over the Past 30 Years*, 436 NATURE 686, 687 (Aug. 4, 2005), available at <ftp://texmex.mit.edu/pub/emanuel/PAPERS/NATURE03906.pdf>.

3. Adrian Sainz, *Tropical Storm Zeta Forms in Atlantic*, ASSOC. PRESS, Dec. 30, 2005, available at <http://abcnews.go.com/US/wireStory?id=1456893>. There are only twenty-one named storms because Q, U, X, Y, and Z are not used for tropical storm names. John Pain, *Tropical Storm Wilma Upgraded to Hurricane*, ASSOC. PRESS, Oct. 18, 2005, available at <http://abcnews.go.com/US/Weather/wireStory?id=1226096>.

4. John McCormick, *Americans Moving into Harm's Way*, CHI. TRIB., Oct. 8, 2005 at C8.

Katrina, "we will not just rebuild, we will build higher and better."⁵ Regardless of political affiliation, it was seen as a mark of triumph over adversity to proclaim that New Orleans would be rebuilt in the same spot, better than ever.⁶

However, this reaction might be too simplistic, given the inherent risks of building in hurricane-prone areas. The country deserves a non-politicized analysis of the environmental and human costs associated with building and living in hurricane-prone areas. Fortunately, our legal system already has a framework in place for analyzing the environmental costs of major federal actions: the National Environmental Policy Act ("NEPA").⁷

NEPA's environmental analysis sections should be applied to Federal Emergency Management Agency ("FEMA") disaster planning, particularly the National Flood Insurance Program and the National Hurricane Program. An Environmental Impact Statement ("EIS") would fulfill the legislative intent of NEPA. This EIS would allow the public and the government to assess the costs and benefits of disaster funding, and would facilitate a more transparent decision-making process. Additionally, analyzing the environmental impacts of developing in hurricane-prone areas would allow rational decisions to be made *before* a disaster happens. Part I of this article will discuss the framework of NEPA, including relevant Supreme Court cases. Part II will look at FEMA programs that deal with hurricanes and floods, and how these programs have affected the development of coastal areas. In Part III, this article will assess the environmental and human toll of Hurricanes Katrina and Rita. Finally, Part IV of this article will argue that preparation of an EIS by FEMA would fulfill the purpose and requirements of NEPA and perhaps help save human lives from the next disastrous storm.

I. Relevant NEPA Provisions and Cases

A. NEPA's Mandate

Enacted in 1970, NEPA creates a "national policy [to] encourage productive and enjoyable harmony between man and his environment"⁸ and is intended to assure everyone "safe, healthful, productive, and esthetically and culturally pleasing surroundings."⁹ As part

5. President George W. Bush, Address to the Nation (Sept. 15, 2006) (transcript available at <http://www.cnn.com/2005/POLITICS/09/15/bush.transcript/>).

6. Donna Brazile, *I Will Rebuild With You, Mr. President*, WASH. POST, Sept. 17, 2005, at A21, available at http://www.washingtonpost.com/wp-dyn/content/article/2005/09/16/AR2005091602167_pf.html.

7. National Environmental Policy Act of 1969 ("NEPA"), 42 U.S.C. §§ 4321-4347 (2006).

8. § 4321.

9. § 4331(b)(2).

of its rationale for passing NEPA, Congress noted that human activity has a significant impact on the natural environment, listing examples such as increased population growth, urban and industrial expansion, resource extraction, and technological advances.¹⁰

NEPA mandates that all administrative agencies "consider the consequences of their actions on the environment."¹¹ NEPA does not require an agency to choose the most environmentally friendly option, or to come to any particular conclusion when making a decision or undertaking a project.¹² Instead, as an "action-forcing" statute, NEPA requires certain procedural steps to be taken to analyze the environmental effects of agency proposals and actions.¹³ One of the most important of these steps under NEPA, and the focus of this article, is the creation of an EIS.

NEPA directs federal agencies to include in all "major Federal actions significantly affecting the quality of the human environment" a detailed statement on: (i) the environmental impact of the proposed action, (ii) any adverse environmental effects which cannot be avoided should the proposal be implemented, (iii) alternatives to the proposed action, (iv) the relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity, and (v) any irreversible and irretrievable commitments of resources which would be involved in the proposed action, should it be implemented.¹⁴

The EIS requirement of NEPA serves two purposes. First, it aims to improve agency decision-making, and not simply to "generate paperwork."¹⁵ By requiring a detailed analysis of environmental impacts, NEPA "ensures that important effects will not be overlooked or underestimated only to be discovered after resources have been committed."¹⁶ Accordingly, an EIS requires an agency to take a "hard look" at the environmental consequences of a proposed action, prior to taking the proposed action.¹⁷

Second, an EIS provides relevant information to all citizens, including affected parties who might want to play a part in the decision-making process.¹⁸ Publication of the EIS allows the public to

10. § 4331(a).

11. MATTHEW BENDER & CO., INC., TREATISE ON ENVIRONMENTAL LAW § 9.01 (2002) [hereinafter TREATISE] (quoting S. REP. NO. 91-296, at 14 (1969)).

12. *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 350 (1989).

13. *Id.* at 349.

14. 42 U.S.C. § 4332(c).

15. 40 C.F.R. § 1500.1(c) (2005).

16. *Methow Valley Citizens Council*, 490 U.S. at 349.

17. *Marsh v. Or. Natural Res. Council*, 490 U.S. 360, 374 (1989).

18. *Id.*

understand the impacts of a proposed action, and comment upon the action, and assures the public that the agency has adequately analyzed the environmental impacts of a proposed action.¹⁹

The Council on Environmental Quality ("CEQ"), an agency authorized by NEPA, has promulgated implementing regulations that contain specific requirements for EISs. The regulations direct agencies to write succinct EISs,²⁰ and to concentrate on alternatives as well as the salient issues.²¹ Each EIS must address the environment that will be affected by the proposed federal action as well as each of the alternatives for the action.²²

1. Major Federal Actions

Although NEPA requires an EIS for all major federal actions, the definition of a "major federal action" is not completely clear in NEPA or its implementing regulations. The CEQ regulations define a "major federal action" as an action that may be "major" and is potentially subject to federal control or responsibility.²³ The term "major" does not have an independent meaning separate from the term "significantly affecting."²⁴ In other words, NEPA does not intend the acting agency to analyze whether an action is major and whether the action significantly affects the environment. Instead, the terms are interpreted in conjunction with each other.²⁵

The word "action" includes activities, projects, and programs that the acting federal agency finances, conducts, regulates, or approves.²⁶ Action also refers to agency rules, regulations, policies, and procedures, and an agency's implementation of a specific statutory program.²⁷ Budget appropriation requests are not "actions" that require an EIS, because an appropriation simply provides funds for authorized programs.²⁸ Accordingly, the underlying action might be subject to an EIS, but once the action is authorized, the funding does not require an EIS.²⁹

In order to determine whether an action "significantly" affects the environment, the agency must look at both the "context" of the

19. *Balt. Gas & Elec. Co. v. Natural Res. Def. Council, Inc.*, 462 U.S. 87, 97 (1983).

20. 40 C.F.R. § 1502.7 (2005).

21. § 1502.14.

22. § 1502.15.

23. § 1508.18.

24. *Id.*

25. *Id.*

26. TREATISE § 9.02, *supra* note 11.

27. 40 C.F.R. § 1508.18(b) (2005).

28. *Andrus v. Sierra Club*, 442 U.S. 347, 349 (1979).

29. *Id.* at 362.

action and the "intensity" of the action's impact.³⁰ The *context* of the action includes how the action affects society at the local, regional, and national level.³¹ Several factors address the *intensity* of an action, including: (1) the effect of the proposed action on public health and safety; (2) unique characteristics of the geographic area; (3) how controversial the effects may be on the environment; (4) how uncertain the risks are to the environment; (5) whether the action will establish a precedent; (6) the cumulative effect of this action when combined with other actions; (7) the impact on scientifically, culturally, or historically important resources; (8) the impact on endangered or threatened species; and (9) whether the action violates environmental protection laws at the federal, state, or local level.³²

2. When Must an EIS Be Prepared, and What Must It Analyze?

NEPA directs the agency to analyze all environmental impacts and adverse effects of the action that cannot be avoided.³³ The definition of "effect" in the CEQ regulations includes both direct and indirect effects.³⁴ The CEQ regulations treat the term "effect" and "impact" interchangeably.³⁵ Direct effects are impacts from the action that "occur at the same time and place."³⁶

Indirect effects are impacts "caused by the action and are later in time or farther removed in distance."³⁷ These effects must still be "reasonably foreseeable."³⁸ The CEQ enumerates several specific indirect effects, including "growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems."³⁹

The U.S. Supreme Court describes NEPA as having an "inherent" "rule of reason" that governs whether an agency must prepare an EIS.⁴⁰ The agency must determine whether the EIS would provide useful information necessary to the decision-making process.⁴¹ In other words, if the EIS would not help the agency understand the en-

30. 40 C.F.R. § 1508.27 (2005).

31. § 1508.27.

32. *Id.*

33. 42 U.S.C. § 4332(c).

34. 40 C.F.R. § 1508.8 (2005).

35. *Id.*

36. *Id.*

37. *Id.*

38. *Id.*

39. *Id.*

40. *Dep't of Transp. v. Pub. Citizen*, 541 U.S. 752, 767 (2004).

41. *Id.*

vironmental consequences of its proposed project,⁴² then it would be unreasonable to require an agency to prepare an EIS. Thus, it would violate the "rule of reason" to require an agency prepare an EIS for an action it has no discretion in performing.⁴³

For an environmental impact to be included in an EIS, the agency's action must have more than a "but for" causal relationship with a particular environmental effect.⁴⁴ Instead, the proposed action must have "a reasonably close causal relationship" to the environmental effect.⁴⁵ This analysis is akin to the proximate cause analysis in torts law.⁴⁶

An agency need not consider the psychological harm that might result to the public from an action it takes. In *Metropolitan Edison Company v. People Against Nuclear Energy*, 460 U.S. 774 (1983), the Nuclear Regulatory Commission was not required to analyze potential psychological harm to residents from the risk of another accident if the Three Mile Island nuclear power plants were reopened.⁴⁷ The Court held that psychological harm did not arise from an impact on the physical environment, and accordingly, NEPA did not apply.⁴⁸

3. Alternatives in an EIS

In the discussion of each alternative to a proposed action, the federal agency must analyze eight factors:⁴⁹ (1) the direct effects of the action and the significance of these effects, (2) the indirect effects of the action and the significance of these effects, (3) possible conflicts between the proposed action and other governmental "land use plans, policies and controls for the area concerned," (4) the environmental effects of the different alternatives, (5) the "energy requirements and conservation potential" of the different alternatives, (6) the "natural or depletable resource requirements" of each alternative, (7) impacts on urban quality and historic and cultural resources, and (8) the capacity to "mitigate adverse environmental impacts."

42. See 40 C.F.R. § 1502.1 (2005).

43. *Dep't of Transp.*, 541 U.S. at 769. For a further discussion of this issue, see *infra* the text accompanying Section I.B.3.

44. See *Dep't of Transp.*, 541 U.S. at 767.

45. *Metro. Edison Co. v. People Against Nuclear Energy*, 460 U.S. 766, 774 (1983).

46. *Id.*

47. *Metro. Edison Co.*, 460 U.S. at 779.

48. *Id.* at 774.

49. 40 C.F.R. § 1502.16 (2005).

4. Mitigation Measures and "Worst Case Analyses"

An EIS need not contain a fully developed plan for mitigating negative environmental impacts.⁵⁰ Accordingly, the U.S. Supreme Court has held that the Forest Service may issue a special land use permit for a ski resort, without creating or implementing a detailed plan to mitigate adverse effects on air quality and an off-site population of mule deer that used the area for a winter range.⁵¹

Despite that ruling, an EIS must contain a detailed investigation of possible mitigation measures⁵² in order to analyze the severity of various environmental effects. A discussion of mitigation measures fulfills the "action-forcing" nature of NEPA.⁵³ CEQ regulations direct an agency to consider possible mitigation measures when outlining the scope of the EIS,⁵⁴ when looking at possible alternatives to the proposed action,⁵⁵ when discussing possible consequences of an action,⁵⁶ and when explaining a final decision.⁵⁷

Furthermore, an EIS need not contain a "worst case analysis" of possible environmental impacts.⁵⁸ Instead of including a worst case analysis, an agency must summarize credible scientific evidence that is relevant to an evaluation of the adverse impacts.⁵⁹ Additionally, the agency must evaluate the likelihood of a particular environmental impact by using "theoretical approaches or research methods generally accepted in the scientific community."⁶⁰

50. *Methow Valley Citizens Council*, 490 U.S. at 359.

51. *Id.*

52. Under CEQ regulations, "mitigation" includes: "(a) Avoiding the impact altogether by not taking a certain action or parts of an action; (b) Minimizing impacts by limiting the degree or magnitude of the action and its implementation; (c) Rectifying the impact by repairing, rehabilitating, or restoring the affected environment; (d) Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; or (e) Compensating for the impact by replacing or providing substitute resources or environments." 40 C.F.R. § 1508.20 (2005).

53. *Methow Valley Citizens Council*, 490 U.S. at 352.

54. 40 C.F.R. § 1508.25(b)(3) (2005).

55. § 1502.14(f).

56. § 1502.16(h).

57. § 1505.2(c).

58. *Methow Valley Citizens Council*, 490 U.S. at 359.

59. *Id.*

60. *Id.* at 354 (quoting 40 C.F.R. § 1502.22(b) (1987) (internal quotations omitted)).

B. When Is an EIS Not Required?

1. Categorical Exclusions

An agency is not required to prepare an EIS if the proposed action is "categorically excluded."⁶¹ A "categorical exclusion" is defined as a group of actions that do not have a significant effect — individually or cumulatively — on the human environment.⁶² To implement a categorical exclusion, the agency must have adopted regulations stating that this category of actions has no significant effect. These regulations also must provide for the preparation of an EIS when a normally excluded action in actuality has a significant environmental effect.⁶³

2. Environmental Assessments with a Finding of No Significant Impact

CEQ regulations also allow an agency to prepare an Environmental Assessment ("EA") when the agency's proposed action is not categorically excluded from the EIS requirements, but an EIS is not clearly required.⁶⁴ An EA is a "concise public document"⁶⁵ intended to "[b]riefly provide sufficient evidence and analysis" to determine whether it is necessary for an agency to prepare an EIS.⁶⁶ If, after preparing an EA, an agency decides that an EIS is not necessary, the agency will issue a "finding of no significant impact" ("FONSI").⁶⁷ A FONSI must detail the agency's rationale for why the proposed action will not have a significant impact on the human environment.⁶⁸

3. The Agency Has No Discretion to Prevent the Proposed Action

An agency is not required to prepare an EIS when the agency has no discretion to prevent the environmental impact at issue, because the agency cannot be considered a legally relevant cause of the environmental effect.⁶⁹ Thus, the Federal Motor Carrier Safety Administration ("FMCSA") did not violate NEPA when it did not analyze the environmental effect of an increase in vehicle traffic after Mexican

61. 40 C.F.R. § 1508.4 (2005).

62. *Id.*

63. *Id.*

64. §§ 1501.4(a)-(b).

65. § 1508.9(a).

66. § 1508.9(a).

67. § 1501.4.

68. § 1508.13.

69. *See Dep't of Transp.*, 541 U.S. at 770.

trucks were again allowed to operate in the U.S.⁷⁰ FMCSA did consider environmental impacts from "traffic and congestion, public safety and health, air quality, [and] noise," as well as "socioeconomic factors, and environmental justice" from implementing safety regulations *associated* with lifting the moratorium.⁷¹ However, FMCSA issued a FONSI regarding the increase of Mexican truck traffic in the U.S., stating that any increase in traffic would result from the President lifting the moratorium, and not from implementing the safety regulations.⁷²

In holding for FMCSA, the U.S. Supreme Court relied on the agency's limited discretion in issuing registrations. The agency must register all domestic or foreign motor carriers that are "willing and able to comply with the applicable safety, fitness, and financial responsibility requirements."⁷³ FMCSA is not authorized to establish or enforce any environmental requirements, including emissions controls that are unrelated to motor carrier safety.⁷⁴ Ultimately, the Court relied upon the fact that the President lifted the moratorium on Mexican motor carrier certification, and FMCSA had no ability to overturn his decision.⁷⁵

Therefore, because FMCSA could not change the environmental impact from the increased Mexican motor vehicle use in the U.S., it was not necessary for the agency's EA to consider the environmental effects arising from this increased use.⁷⁶

II. FEMA's Hurricane Disaster Funding and Its Impact on Human Behavior

A. FEMA's National Flood Insurance Program

As early as the 1950s, Congress realized that private insurance companies would not provide flood insurance at an affordable price, because of the disastrous nature of floods and the lack of an actuarial rate structure that accurately reflected the risk of flooding in certain areas of the country.⁷⁷ Congress created the National Flood Insurance Program ("NFIP") through the 1968 National Flood Insurance Act

70. *Id.* at 756.

71. *Id.* at 761.

72. *Id.*

73. *Id.* at 758-759 (internal quotations omitted).

74. *Id.* at 759.

75. *Id.* at 766.

76. *Id.* at 756.

77. FEDERAL EMERGENCY MANAGEMENT AGENCY ("FEMA"), *National Flood Insurance Program Description*, (Aug. 1, 2002), available at <http://www.fema.gov/doc/library/nfipdescrip.doc> [hereinafter NFIP Description].

("1968 Act") in an attempt to reduce the cost of taxpayer-funded disaster relief after floods⁷⁸ and to control the damage caused by floods.⁷⁹ After realizing that many communities were not participating in the NFIP, Congress enacted the Flood Disaster Protection Act of 1973 ("1973 Act").⁸⁰ This Act prohibits federal assistance in the purchase or construction of buildings as well as some disaster assistance in the floodplains of any community that did not take part in the NFIP by July 1, 1975, or within one year of being recognized as flood-prone.⁸¹

The NFIP provides federally funded flood insurance to homeowners, business owners, and renters.⁸² In exchange, communities agree to adopt floodplain ordinances.⁸³ Almost 20,000 U.S. communities participate,⁸⁴ and more than 4.6 million Americans carry flood insurance through the NFIP.⁸⁵

In 1994, Congress amended the 1968 Act through the National Flood Insurance Reform Act.⁸⁶ Through this amendment, Congress encouraged state and local governments to restrict development of land exposed to floods, encouraged lending and credit institutions to further the objectives of the NFIP, and authorized further studies of flood hazards in order to reappraise the NFIP and its effect on land use.⁸⁷ Congress noted that annual losses from floods and mudslides are increasing at a significant rate, due mainly to accelerating development and higher population density in areas prone to those hazards.⁸⁸ Additionally, the withholding or granting of federal loans and insurance often influences choices in land use and construction.⁸⁹

78. According to FEMA, disaster assistance after a flood is reduced by \$1 billion a year because of the floodplain management component of the NFIP and the purchase of flood insurance. FEMA, *National Flood Insurance Program*, (May 5, 2006), available at <http://www.fema.gov/business/nfip>. FEMA postulates that \$1 in disaster assistance is saved for every \$3 paid in flood insurance claims. *Id.*

79. *Id.*

80. NFIP Description, *supra* note 77.

81. *Id.*

82. FEMA, *Answers to Questions about the NFIP*, (June 8, 2006) available at http://www.fema.gov/pdf/press/katrina_after/nfip_faqs.pdf [hereinafter NFIP FAQs].

83. *Id.*

84. *Id.*

85. FEMA, *National Flood Insurance Program Announces Simplified Adjustment Process For Policyholders Affected By Hurricane Katrina*, (Sept 20, 2005), available at <http://www.fema.gov/news/newsrelease.fema?id=19018>.

86. National Flood Insurance Reform, Pub. L. No. 103-325, § 511 (1994), (codified at 42 U.S.C. §§ 4001-4129 (2000)).

87. 42 U.S.C. § 4001(e) (2000).

88. 42 U.S.C. § 4002 (2006).

89. *Id.*

FEMA maps floodplains in the U.S. The mapping is intended to raise awareness of flood hazards and facilitates actuarial assessments for flood insurance.⁹⁰ FEMA designates land in the one-hundred-year floodplain, or land that has a one percent or greater risk of flooding in any given year, as a Special Flood Hazard Area.⁹¹ To receive financing from a federally insured or regulated institution to purchase, construct, or renovate structures in Special Flood Hazard Areas, an owner is required to purchase flood insurance under the NFIP.⁹² Although it is not required for everyone, any property owner in a community participating in the NFIP may purchase flood insurance.⁹³

The 1968 Act distinguishes between buildings built before and after the creation of the NFIP.⁹⁴ Flood insurance on buildings constructed prior to the Act is heavily subsidized by the NFIP; after the date of initial flood mapping, insurance for new or significantly improved buildings is not subsidized and reflects the total risk.⁹⁵ These buildings are known as Post-Flood Insurance Rate Map ("Post-FIRM") buildings.⁹⁶

NFIP insurance policies cover up to \$250,000 for residential homes.⁹⁷ Coverage for a business can extend up to \$500,000 for the structure.⁹⁸ The insurance policy also protects the contents of the building; the policy covers up to \$1 million for a residential building⁹⁹ and a business can receive up to \$500,000 in coverage for the contents of the building.¹⁰⁰

The NFIP is funded through the National Flood Insurance Fund, which was created by the 1968 Act.¹⁰¹ Premiums are deposited into the fund, and in turn the fund pays claims, as well as operating and administrative costs.¹⁰² If necessary, FEMA is authorized to borrow money from the General Treasury if the National Flood Insurance Fund does not contain enough money to pay necessary claims and

90. NFIP FAQs, *supra* note 82.

91. NFIP Description, *supra* note 77, at 7.

92. NFIP FAQs, *supra* note 82.

93. *Id.*

94. NFIP Description, *supra* note 77, at 26.

95. *Id.*

96. *Id.* at 27.

97. *Id.* at 25.

98. FEMA, *How Much Coverage is Available?* (June 7, 2006), <http://www.fema.gov/business/nfip/cover.shtm#49>.

99. *Id.*

100. *Id.*

101. NFIP Description, *supra* note 77, at 2.

102. *Id.* at 8.

costs.¹⁰³ Congress recently raised the NFIP's limit for borrowing money from the treasury to \$20.8 billion because the fund does not contain sufficient money to pay current claims.¹⁰⁴ In 2005, before Hurricanes Katrina and Rita, the limit for borrowing was set at \$1.5 billion.¹⁰⁵

In the 2004 fiscal year, the NFIP paid out \$1,692,460 in Alabama, \$16,959,530 in Florida, \$19,570,591 in Louisiana, and \$2,442,763 in Mississippi.¹⁰⁶ FEMA estimates claims from Hurricanes Rita and Katrina will top \$24 billion, which is more than the total of all claims made in the history of the NFIP.¹⁰⁷

B. FEMA's National Hurricane Program

FEMA's National Hurricane Program leads the federal response to hurricanes. The program has a three-pronged approach: (1) hurricane damage response; (2) hurricane preparedness; and (3) mitigation before a hurricane occurs.¹⁰⁸ The program's most important goal for the purpose of this section is the effective response to hurricane damage. In order to achieve this goal, FEMA, along with state and local governments, helps provide emergency evacuation.¹⁰⁹ FEMA is also supposed to help develop emergency evacuation shelters and plans, and raise public awareness of hurricane hazards.¹¹⁰

FEMA provides emergency supplies, housing, and financial assistance for rebuilding.¹¹¹ After Hurricane Katrina, FEMA gave housing assistance to more than 700,000 people.¹¹² In October 2005, two months after Hurricane Katrina made landfall, FEMA was still housing 31,500 people in temporary shelters.¹¹³

Under the Transitional Housing Assistance Program, FEMA provided \$2,358 per household to people made homeless by Hurricane

103. Jim Abrams, Assoc. Press, *Flood Insurance Agency Gets Boost; Congress Agrees More Money Can Be Borrowed to Pay Storm Victims*, HOUS. CHRON., Mar. 17, 2006, at A21.

104. *Id.*

105. *Id.*

106. FEMA, FLOOD INSURANCE: TOTAL CLAIM PAYMENTS BY STATE, SEPTEMBER 30, 2003 - SEPTEMBER 30, 2004, April 17, 2006, <http://www.fema.gov/business/nfip/statistics/totclmpaydata2004.shtm>.

107. Abrams, *supra* note 103.

108. NFIP FAQs, *supra* note 82.

109. FEMA, *National Hurricane Program*, Aug. 23, 2006, <http://www.fema.gov/plan/prevent/nhp/index.shtm>.

110. *Id.*

111. FEMA, *Disaster Support Resources*, July 31, 2006, http://www.fema.gov/business/nfip/disaster_res.shtm.

112. Spencer S. Hsu, *Housing Aid Called Too Much, Too Little*, WASH. POST, Oct. 12, 2005, at A06.

113. Dahleen Glanton, *Evacuees Find Community in Georgia Hotel*, CHI. TRIB., Feb. 12, 2006, at C1.

Katrina.¹¹⁴ This money was intended to cover three months' rent.¹¹⁵ These payments could be extended for up to eighteen months if the renter could prove that her monthly rent exceeded \$786.¹¹⁶ As of November 5, 2005, 488,000 people had received rental assistance under this program.¹¹⁷ However, Congress has limited FEMA aid of all kinds — including home repairs — to \$26,200 per family.¹¹⁸

Additionally, FEMA ordered 125,000 trailers for evacuees to live in while their homes were being repaired.¹¹⁹ The trailer program is estimated to cost significantly over \$2 billion.¹²⁰ FEMA also spent \$236 million to place 7,000 people on three Carnival Cruise Lines ships.¹²¹

Finally, FEMA placed thousands of people in hotel rooms. Up until an October 15th deadline, FEMA paid \$8.3 million a day to keep 549,000 people in hotel rooms, although Hurricane Katrina made landfall at the end of August.¹²² The average room rate was \$59 per night.¹²³ In November 2005, well past the deadline, FEMA was still paying for 69,000 hotel rooms.¹²⁴ As of February 2006, FEMA expended \$542 million to house people in hotels and motels.¹²⁵

In Louisiana alone, FEMA's costs for Hurricanes Katrina and Rita exceeded \$12 billion for immediate response, as well as counseling, legal services, housing, living expenses, and property replacement, among other relief.¹²⁶

C. Moral Hazard — How Insurance Changes the Behavior of the Insured

Economists use the concept of *moral hazard* to illustrate that being insured may change people's behavior.¹²⁷ The theory postulates that an actor who is not paying for a given risk is more likely to take the risk or use the resource. For example, the savings-and-loan de-

114. FEMA, *Disaster Support Resources*, *supra* note 111.

115. *Id.*

116. Hsu, *supra* note 112.

117. Andrew Martin, *Hitches Show in FEMA Trailer Plan*, CHI. TRIB., Nov. 5, 2005, at C1.

118. Hsu, *supra* note 112. This \$26,200 limit does not apply to flood damage claims.

119. Martin, *supra* note 117.

120. *Id.*

121. Hsu, *supra* note 112.

122. *Id.*

123. *Id.*

124. Martin, *supra* note 117.

125. Glanton, *supra* note 113.

126. FEMA Press Release, *Six Months After the Storms*, (Feb. 28, 2006), <http://www.fema.gov/news/newsrelease.fema?id=23903>.

127. Malcolm Gladwell, *The Moral Hazard Myth: The Bad Idea Behind Our Failed Health-Care System*, NEW YORKER, Aug. 29, 2005, available at http://www.newyorker.com/fact/content/articles/050829fa_fact.

bacle of the 1980s was largely induced by newly deregulated savings and loans that relied on federal insurance when making extremely risky investments.¹²⁸

Moral hazard is a type of maximizing behavior.¹²⁹ An actor examines the costs and benefits of an action, and when the benefits exceed the risks, the person will take the action.¹³⁰ The theory of moral hazard does not necessarily require that the person intentionally undertake the risk; if the person simply does not take any action to avoid the risk, then the same result occurs.¹³¹

Moral hazard can be the result of governmental action.¹³² Programs that are designed to help people in need can encourage — or fail to discourage — people to place themselves in need.¹³³ Welfare and unemployment programs can persuade some people to work less.¹³⁴ Accordingly, government programs that protect the public against misfortune can have the unintended consequence of increasing the use of a given government resource.¹³⁵

In amending the 1968 Act, Congress noted that the theory of moral hazard can influence consumer decisions of where to live, where to build a house, and where to establish a business. Congress found that federal loans and insurance are determinative factors in land use and construction choices.¹³⁶

Studies of population shifts show that despite the risk, Americans continue to move into hurricane-prone areas.¹³⁷ According to a *Chicago Tribune* study, approximately one in eight Americans live in coastal counties between Texas and Massachusetts.¹³⁸ Almost half of these coastal counties experienced more rapid growth than the nation as a whole between 2000 and 2004.¹³⁹ These counties grew by 5.1 percent between 2000 and 2004, as opposed to 4.3 percent for the

128. *Id.*

129. Robert E. Schenk, CYBERECONOMICS: AN ANALYSIS OF UNINTENDED CONSEQUENCES, Overview: Problems of Information, Risk, and Exclusion (2006), available at <http://ingrimayne.com/econ/RiskExclusion/Risk.html>.

130. *Id.* Clearly, some people will not deliberately take an advantageous action due to ethical or moral objections.

131. *Id.*

132. *Id.*

133. *Id.*

134. *Id.*

135. *Id.*

136. 42 U.S.C. § 4002 (2006).

137. McCormick, *supra* note 4.

138. *Id.*

139. *Id.* The study looked at 125 coastal counties along the Gulf of Mexico and the Atlantic Ocean, excluding counties protected by Chesapeake Bay. *Id.*

U.S. as a whole.¹⁴⁰ Since 2000, certain counties in Florida, Texas, Alabama, and North and South Carolina grew by more than 10 percent.¹⁴¹

Florida, where hurricanes most commonly make landfall, has 14 of the nation's 100 fastest-growing counties.¹⁴² With the exception of Orlando, most of Florida's growth occurs along the coast. The population along Florida's coast has increased from 10 million to 13 million since 1990.¹⁴³ This growth continues despite the fact that Florida was hit by eight hurricanes and three tropical storms during the 2004 and 2005 hurricane seasons.¹⁴⁴ According to the Florida Department of Financial Services, insured losses from the Katrina season are estimated to top \$10 billion in Florida.¹⁴⁵

III. The Human and Environmental Impacts of FEMA Disaster Funding

When NEPA was passed, it was intended to preserve the natural as well as the human environment. This section will solely address the environmental and human impacts of Hurricane Katrina, and to a lesser extent Hurricane Rita. However, the theory of moral hazard, as well as the necessity for engaging in a NEPA process to protect the human environment, applies to all hurricane-prone areas of the country.

A. The Human Toll of Hurricane Katrina

The 2005 hurricane season had an enormous impact upon people who live along the Gulf of Mexico. An estimated 1,464 people were killed.¹⁴⁶ Approximately 400,000 people were displaced from their homes.¹⁴⁷ Some 50 victims remain missing.¹⁴⁸

B. Environmental Impacts from Hurricanes Katrina and Rita

In the wake of the hurricanes, many everyday items were abandoned or destroyed, and became environmental pollutants. The hur-

140. *Id.*

141. *Id.*

142. *Id.*

143. *Id.*

144. Curt Anderson, *Tropical Storm Could Threaten Florida*, ASSOC. PRESS, (Nov. 19, 2005), available at <http://abcnews.go.com/US/wireStory?id=1328677>.

145. *Id.* Total damages are estimated to be more than \$20 billion. Freddy Cuevas, *Hurricane Wilma Heads for Central America*, ASSOC. PRESS, (Oct. 19, 2005), available at <http://www.breitbart.com/news/2005/10/19/D8DBB8K09.html>.

146. Dan Barry, *A City's Future, and a Dead Man's Lost Past*, N.Y. TIMES, Aug. 27, 2006 at 1.

147. Centers for Disease Control, *Surveillance in Hurricane Evacuation Centers*, MORBIDITY AND MORTALITY WEEKLY, Jan. 20, 2006, available at <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5502a3.htm>.

148. Barry, *supra* note 146.

ricanes damaged or ruined nearly 160,000 homes, creating approximately 22 million tons of debris.¹⁴⁹ None of the wood debris from New Orleans could be disposed of outside of New Orleans, because it might spread highly destructive Formosan termites.¹⁵⁰ Instead, the wood has to be burned, using a method that is intended to limit — but does not eliminate — emissions.¹⁵¹ As of February 28, 2006, six months after Hurricane Katrina, only 54 percent of the debris had been removed.¹⁵²

As of October 2005, garbage trucks in New Orleans had collected approximately 4.6 million cubic yards of waste.¹⁵³ The U.S. Army Corps of Engineers estimated that the total amount of waste collected would exceed 17 million cubic yards.¹⁵⁴ This figure does not include the waste from abandoned cars and boats, or homes that needed to be destroyed.¹⁵⁵

As much as five million gallons of toxic household waste were scattered throughout this debris.¹⁵⁶ Bleach, cleaners, paint, and other toxic materials that most people keep around the house contributed to this toxic waste. Additionally, the government must clean up ozone-depleting materials in destroyed refrigerators, along with mercury and other heavy metals in destroyed televisions, microwaves, and computers.¹⁵⁷ The retrieval and removal of the pollutants in refrigerators alone can take over a year.¹⁵⁸

Nearly 350,000 vehicles were destroyed and deserted after the hurricanes.¹⁵⁹ Oil, gasoline, tires, and electrical switches in the vehicles have to be removed before the vehicles can be recycled. Electrical switches for anti-lock braking systems and lights for doors, trunks and glove boxes contain mercury, which is toxic to humans.¹⁶⁰

149. Dan Lothian & Rick Sanchez, CNN, *Storms Turn Everyday Items to Toxic Trash* (Oct. 5, 2005), available at <http://www.cnn.com/2005/TECH/science/10/05/hurricanes.toxins/index.html>.

150. Randy Lee Loftis, *Environmental Experts Contemplate New Orleans' Rebirth*, DALLAS MORNING NEWS, Sept. 27, 2005.

151. *Id.*

152. FEMA Press Release, *supra* note 126.

153. Tom Hays, *New Orleans Faces Massive Debris Problem*, ASSOC. PRESS, Oct. 20, 2005, available at http://www.usatoday.com/news/nation/2005-10-20-katrinadebris_x.htm.

154. *Id.*

155. *Id.*

156. Lothian, *supra* note 149.

157. *Id.*

158. Tom Hays, *New Orleans Faces Massive Debris Problem*, *supra* note 153.

159. Lothian, *supra* note 149.

160. *Id.*

The EPA waived Clean Water Act rules that normally would forbid the dumping of contaminated water into Lake Pontchartrain.¹⁶¹ This relaxation of the rules allowed billions of gallons of untreated, polluted water to flow into Lake Pontchartrain.¹⁶²

Additionally, the very efforts that FEMA takes to mitigate the impact of hurricanes can contribute to environmental problem of urban sprawl. One of the first trailer parks created in the wake of Hurricane Katrina covers 62 acres of former farmland on the outskirts of Baker, Louisiana.¹⁶³ Many similar sites were under construction; in Louisiana, 18 sites began construction, with FEMA attempting to obtain land for 38 more.¹⁶⁴ FEMA built seven trailer parks in Mississippi, and negotiated to purchase 15 more sites.¹⁶⁵ Although these sites are smaller than the site in Baker, Louisiana, these developments still caused an enormous loss of open space.¹⁶⁶

IV. FEMA's Preparation of an EIS Would Serve the Purpose of NEPA

A. FEMA's Planning is a Major Federal Action Significantly Affecting the Environment

First, the NFIP and the National Hurricane Program meet the triggering requirement of NEPA: both are major federal actions that significantly affect the environment. An action is an activity, project or program that a federal agency finances, conducts, regulates, or approves.¹⁶⁷ FEMA finances and conducts both programs. Each program costs billions of dollars a year, a significant outlay of federal resources, bolstering the determination that both actions are "major." Accordingly, the National Flood Insurance Program and the National Hurricane Program are both major federal actions.

161. Loftis, *supra* note 150.

162. *Id.* Senator James Inhofe of Oklahoma, the Republican chairman of the Senate Environment and Public Works Committee, introduced a bill that would allow the Environmental Protection Agency to suspend its standards for four months during the Katrina cleanup, with the possibility to extend this relaxation up to eighteen months to allow the Administrator of the Environmental Protection Agency to waive or modify the application of certain requirements, S. 1117, 109th Cong. (2005). This bill was referred to the Committee on Environment and Public Works, but was not enacted. *Id.*

163. Martin, *supra* note 117.

164. *Id.*

165. *Id.*

166. *Id.*

167. TREATISE, *supra* note 11.

Second, FEMA's actions have "a reasonably close causal relationship"¹⁶⁸ to the environmental effects of increased population growth as well as the environmental and human impacts from inadequate hurricane response and planning. Increased population growth is a reasonably foreseeable indirect effect of FEMA's disaster planning.¹⁶⁹ CEO's regulations specifically include within the definition of "indirect effect" policies that induce growth and other effects related to growth rate, as well as the attendant impact on the environment.¹⁷⁰

As analyzed in the moral hazard section, FEMA's hurricane and flood planning have taken much of the personal risk out of living in a hurricane-prone area. Although people choose to move to coastal areas for many different reasons, FEMA's NFIP and National Hurricane Program have removed much of the personal risk of living in hurricane-prone areas. Thus, FEMA has removed the costs of moving into these areas, leaving only the benefits of living in a coastal area. Accordingly, a rational cost-benefit analysis prior to a move into a hurricane-prone area does not accurately reflect the true cost of living in a hurricane zone — including rebuilding, evacuation, and hurricane response.

Studies have shown that these areas have grown at a higher rate than other areas of the country.¹⁷¹ People continue to move into hurricane-prone areas in increasing numbers, possibly because they do not have to personally bear the brunt of the cost of a hurricane. Therefore, increased population growth and the attendant environmental effects are reasonably foreseeable effects of FEMA's NFIP and National Hurricane Program.

Also, even if the theory of moral hazard does not completely explain the extreme population growth in coastal areas, FEMA's inadequate hurricane response has had a significant impact upon the natural and human environment. Many of the impacts upon the human and natural environment outlined in Sections III.A and III.B could have been avoided through more deliberate and effective hurricane damage response and hurricane preparedness, which are two of the three prongs in FEMA's National Hurricane Program.¹⁷² Accordingly, the impacts on the natural and human environment bear "a reasonably close causal relationship"¹⁷³ to FEMA's disaster planning.

168. *Metro. Edison Co. v. People Against Nuclear Energy*, 460 U.S. 766, 774 (1983).

169. 40 C.F.R. § 1508.8 (b) (2005).

170. *Id.*

171. McCormick, *supra* note 4.

172. NFIP FAQs, *supra* note 82.

173. *Metro. Edison Co.*, 460 U.S. at 774.

Thus, increased population growth and the environmental impacts outlined in Sections III.A and III.B are both effects of FEMA's programs, and must be analyzed in an EIS if their impact on the environment is significant.

Third, FEMA's hurricane and flood programs significantly affect the environment. FEMA must look at both the context of the action and the intensity of the impact of the action to determine the significance of an environmental effect.¹⁷⁴ The context of the action includes the impact on society at both a regional and national level. In the case at hand, disaster funding and increased population growth in coastal areas have both a regional effect and a national effect. The whole country was immeasurably affected by the human suffering caused by Hurricanes Rita and Katrina, and the nation's taxpayers will continue to pay for the considerable cost of responding to the hurricanes. Regionally, the hurricanes significantly impacted the human and natural environment, as discussed in Sections III.A and III.B.

The CEQ has listed nine factors that are used to determine the intensity of an action.¹⁷⁵ Applying these nine factors, the impact on the environment from FEMA's programs is also intense. First, FEMA's actions clearly affect public health and safety, because the more people present in these areas, the more likely they are to die or experience negative impacts from hurricane-related damage. Second, the area affected by FEMA's actions is distinctive, because it encompasses the whole coastline of the southeast and the Gulf coast. As subtropical coastline, the natural areas affected by FEMA's actions are significantly different from the rest of the U.S. coastline, including the New England coast and the Pacific coast. Third, FEMA's actions are not controversial. However, all of the factors are intended to be weighed together; this factor alone will not eliminate the need for an EIS.

Fourth, as shown by Hurricanes Katrina and Rita, hurricanes can cause great damage to the human environment, including high death tolls. Hurricanes also pose a considerable risk to environment; FEMA plans can help mitigate environmental damage if they are well-executed. Fifth, FEMA's actions clearly have set precedent for similar future actions, because FEMA continues to develop its programs without thinking critically about the environmental impacts. Sixth, the cumulative impact of hurricane damage and FEMA's responses, while not easily measured, can be seen in the continuing devastation in and around the Gulf Coast. Applying the seventh factor, it is clear that the devastation from Hurricanes Katrina and Rita has affected

174. 40 C.F.R. § 1508.27 (2005).

175. *Id.*

culturally and historically important resources, from New Orleans' jazz heritage to Mardi Gras. Eighth, it is likely that an increase in population growth, as well as the negative impacts once a hurricane occurs, has an impact on endangered or threatened species. There are 23 species listed as threatened or endangered in Louisiana, 90 in Texas, 34 in Mississippi, 96 species in Alabama, and 108 in Florida.¹⁷⁶ Therefore, FEMA plans likely have a significant impact on endangered and threatened species; a successful recovery plan would consider the impact on those species. Finally, it is unlikely that FEMA's program violates federal, state or local environmental protection laws. However, even if FEMA's program complies with all other laws, it still has a significant impact on the natural environment.

Thus, an analysis of the context and intensity of FEMA's hurricane planning demonstrates that it is a major federal action that significantly affects the natural environment.

B. An EIS is Required for FEMA's Hurricane Planning and NFIP

Even if an action is a major federal action significantly affecting the environment, there are three situations in which an EIS would not be required: (1) if the action is categorically excluded; (2) if an EA has already been prepared; or (3) the agency has no discretion to prevent the environmental impacts to be analyzed. However, none of these situations apply to the case at hand. First, FEMA has not categorically excluded the NFIP and the National Hurricane Program from environmental review.¹⁷⁷ Second, FEMA has never prepared an EA nor issued a FONSI for the NFIP or the National Hurricane Program.¹⁷⁸ Third, FEMA has discretion to change the implementation of the NFIP and the National Hurricane Program. One of the purposes of the 1994 amendment to the 1968 Act states that the NFIP shall "provide flexibility in the program so that such flood insurance may be based on workable methods of pooling risks, minimizing costs, and distributing burdens equitably among those who will be protected by flood insurance and the general public."¹⁷⁹

Although FEMA does not have discretion to eliminate either the NFIP or the National Hurricane Program, it does have discretion to

176. U.S. FISH & WILDLIFE SERVICE, USFWS *Threatened and Endangered Species System* (TESS) (Nov. 3, 2006), available at http://ecos.fws.gov/tess_public/StateListingAndOccurrence.do?state=all.

177. Determination of Requirement for Environmental Review, 44 C.F.R. § 10.8 (2005).

178. FEMA, *Federal Register Notices and Archives*, (Mar. 27, 2006) http://www.fema.gov/library/lib_arch.shtm. The author also conducted a search of the Federal Register database for "FEMA" and "Environmental Assessment" and "NFIP," as well as "FEMA" and "Environmental Assessment" and "National Hurricane Program" and did not find an Environmental Assessment for the NFIP nor for the National Hurricane Program.

179. 42 U.S.C. § 4001(d)(2) (2006).

decide many aspects of the NFIP, such as which areas are Special Hazard Flood Areas.¹⁸⁰ Special Hazard Flood Areas are areas in which every building owner must purchase flood insurance, based upon their location in the 100-year floodplain.¹⁸¹ However, there is no reason that FEMA could not require flood insurance for all areas within the 500-year floodplain, rather than the 100-year floodplain. An EIS could also analyze the price of NFIP insurance premiums, and the deterrent effect (or lack thereof) that NFIP pricing has on people moving into flood and hurricane-prone areas. These are just a few of the alternatives that FEMA could analyze in its EIS of the NFIP.

Additionally, FEMA has discretion in how it implements the National Hurricane Program. The program has three separate goals, including mitigation before the hurricane occurs.¹⁸² FEMA's mitigation of the impact of hurricanes includes, among other things, assessing building performance after significant hurricanes and coastal storms, developing designs for hazard-resistant construction in new buildings and retrofitting techniques for existing buildings, and recommending improvements to state and local regulatory programs.¹⁸³ FEMA could include within its focus of mitigation significant public education about the risk of relocating to hurricane zones. If FEMA were to heavily publicize the health, property, and environmental risks of relocating to hurricane zones, fewer people might become victims of the storms. This is just one alternative that FEMA could reasonably analyze in its EIS of the National Hurricane Program.

Accordingly, FEMA has discretion in the way that it implements the NFIP and National Hurricane Program. Because FEMA has discretion in the way that it implements its NFIP and National Hurricane Program, it similarly has discretion to prevent or ameliorate the environmental effects of these programs, including increased population growth in coastal, hurricane-prone zones. Therefore, an EIS is not precluded for FEMA's lack of discretion to prevent the environmental effect.

Because FEMA's NFIP and National Hurricane Program are major federal actions significantly affecting the natural environment, and they are not precluded by a Categorical Exclusion, EA, or FEMA's lack of discretion to change the environmental effect, an EIS would be appropriate.

180. NFIP Description, *supra* note 77.

181. *Id.*

182. FEMA, *National Hurricane Program*, *supra* note 109.

183. *Id.*

C. Preparation of an EIS Would Fulfill the Purpose of NEPA

NEPA articulates two purposes behind the preparation of an EIS. First, an EIS is meant to improve agency decision-making¹⁸⁴ by ensuring that all environmental impacts are discovered and considered before resources are committed.¹⁸⁵ Second, an EIS makes all of the pertinent information available to citizens and other affected parties who might help in the decision-making process.¹⁸⁶

1. An EIS Would Allow for the Analysis of Environmental Impacts Before Resources Are Irretrievably Committed

Congress intended NEPA to improve decision-making by facilitating a rational discussion of the environmental impacts of an action before the action occurs. Applying the "rule of reason" approach, the preparation of an EIS would improve FEMA's decision-making. Currently, FEMA has irretrievably committed resources by promising the American people that FEMA will always be there to react to a hurricane. In essence, the American people have relied on the notion that FEMA will always protect them from hurricanes. FEMA's programs now operate to mitigate the impacts of disasters, after the disaster occurs. Instead, an EIS would allow for an open and thorough analysis of the environmental risks associated with FEMA disaster planning. FEMA could accordingly craft its program with an understanding of the environmental hazards of its actions.

According to the theory of moral hazard, people are more likely to assess the risks of moving into a hurricane zone, if they know that they *alone* are responsible for the costs of a hurricane. People tend to increase certain behaviors if another party is partially or fully bearing the cost of risky behavior. In the case at hand, the benefits of living in a coastal area might still outweigh the costs of living in a hurricane zone, even if FEMA's disaster programs did not exist. However, the presence of FEMA's disaster programs ensures that most people never truly weigh the full costs and benefits of living in a hurricane zone.

FEMA's programs fall directly into the theory of moral hazard. People continue to move into hurricane zones, assuming that FEMA will provide flood insurance and responses to hurricanes, no matter what the cost to the human or natural environment.

Once a hurricane occurs, there is no way to assess the risks of FEMA's NFIP and National Hurricane Program, because the emergency situation demands that those plans be executed. This type of

184. 40 C.F.R. § 1500.1 (2005).

185. *Methow Valley Citizens Council*, 490 U.S. at 349.

186. *Id.*

commitment of resources without prior analysis is exactly what Congress intended to avoid with NEPA.

Instead, FEMA should complete a full EIS analyzing the environmental impacts of the current implementation of the NFIP and the National Hurricane Program. As stated above, one indirect effect of these programs is to encourage people to move into these areas. More people results in more houses, cars, boats, electronics, and other possessions that must be cleaned up after a devastating hurricane. Additionally, strong hurricanes can result in the release of millions of gallons of toxic waste into the environment, simply from household chemicals that many people use every day.

Preparation of an EIS would not necessarily mandate that FEMA change its actions under the NFIP and the National Hurricane Program, because NEPA does not require an agency to take the most environmentally sound option. Instead, the preparation of an EIS would ensure that FEMA has adequately analyzed the environmental risks of encouraging population growth in coastal areas, and made its decision with a full awareness of the risks.

2. Preparation of an EIS Would Inform the Public of the Environmental Impacts of Disaster Funding

Congress also intended NEPA to act as tool for disseminating information. The preparation of an EIS would allow for public input into FEMA's decision-making process. It would ensure that those affected by FEMA's plan, including people living in hurricane areas, people deciding whether to move into hurricane zones, and people who want to protect coastal areas, would have a voice in the decision.

Additionally, with adequate information the public can put pressure on FEMA to improve its programs. Along with a full analysis of the environmental risks and the cost to taxpayers of FEMA's current plan, the public would be given an opportunity to make suggestions for improvement. Regardless of whether the public actually requests a change to FEMA's programs, the information in an EIS would fulfill Congress' intent that the public be informed of environmental impacts.

Conclusion

Living and working in hurricane-prone areas can have significant — although not fully recognized — costs to the human and natural environment. A FEMA-prepared EIS would help to rationally analyze these costs before another catastrophic hurricane such as Hurricane Katrina.

The public deserves an analysis of the risks of living in hurricane-prone zones, as well as the actions necessary to reduce the im-

pact of hurricanes on the human and natural environment. Republican House Speaker Dennis Hastert stated, in reference to New Orleans, "it makes no sense to spend billions of dollars to rebuild a city that's seven feet under sea level."¹⁸⁷ Accordingly, preparation of an EIS by FEMA regarding its NFIP and National Hurricane Program would fulfill Congress's intent in enacting NEPA and the amended National Flood Insurance Act of 1968, by providing information to the public and carefully analyzing the environmental risks of the current implementation of these programs.

187. Assoc. Press, *Hastert: New Orleans "could be bulldozed,"* SEATTLE TIMES, Sept. 2, 2005, at A13.
