



# FEMA's Hazard Mitigation Grant Program: Overview and Issues

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## Summary

Since 1989, the federal government has spent over \$96.1 billion for disaster assistance provided by the Federal Emergency Management Agency (FEMA). Over \$4.4 billion of the disaster assistance was for hazard mitigation of natural disasters such as floods, wildfires, hurricanes, tornados, and earthquakes. The unpredictable nature of the location and scale of natural disasters poses a significant fiscal management challenge to Congress. To alleviate the federal costs of disasters, Congress amended the Disaster Relief Act of 1974 in 1988 (P.L. 100-707), which was renamed the Robert T. Stafford Disaster Relief and Emergency Assistance Act (commonly known as the “Stafford Act”), to provide federal assistance to mitigate the impacts from future disasters.

Hazard mitigation activities are generally categorized as structural and nonstructural. Structural mitigation activities may include physical changes to a facility or development of standards such as building codes and material specifications. Examples of physical changes to a structure are retrofitting a building to be more resistant to wind-hazards or earthquakes, or elevating a structure to reduce flood damage. Nonstructural activities may include community planning initiatives such as developing land-use zoning plans, disaster mitigation plans, and flood plans. Other nonstructural community activities may include participating in property insurance programs and developing warning systems.

Federal disaster mitigation assistance provides funding for both structural and nonstructural mitigation activities. A primary source of federal disaster mitigation assistance is the Hazard Mitigation Grant Program (HMGP). Legislation introduced in the 110<sup>th</sup> Congress would have expanded allowances for the use of HMGP funds administered by FEMA in the Gulf Coast. Legislation introduced in the 111<sup>th</sup> Congress include provisions that would establish a homeowner mitigation loan program (H.R. 1239), provide a tax credit for mitigation expenditures (H.R. 308), and create a National Hurricane Research Initiative to improve hurricane preparedness (H.R. 327).

Issues that Congress may wish to consider, in addition to eligible uses of HMGP funds, include the role of federalism in disasters, the lag between a major disaster declaration and expenditure of HMGP funds, the accuracy of risk assessment and disaster predictions, consolidation of hazard mitigation grant programs under a block grant, and disaster assistance to small businesses.

This report will be updated as warranted by events.

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# Federal Role in Hazard Mitigation

## Fiscal Management Challenge

Since 1989, the federal government has spent over \$96.1 billion for disaster assistance provided by the Federal Emergency Management Agency (FEMA).<sup>1</sup> Because of the unforeseeable nature of disasters, predicting the level of federal disaster assistance presents a fiscal management challenge. In June 1998, the Director of FEMA at that time, James Lee Witt, noted the challenge of forecasting the costs of federal disaster assistance.

Over the past ten years, FEMA has received \$2.9 billion in regular (non-emergency) appropriations for Disaster Relief. In contrast, \$21.9 billion have been provided in supplemental appropriations.<sup>2</sup>

Congress continues to be challenged with finding ways to manage the costs of disasters. Hazard mitigation can potentially reduce federal costs by decreasing the level of damage from future disasters. Of the \$96.1 billion expended for disaster assistance since 1989, FEMA allocated \$4.4 billion for hazard mitigation activities to prevent or ease the impact of natural disasters. This report provides an overview and discussion of federal hazard mitigation assistance.

## Shifting Federal Role in Disasters

Historically, Congress has taken an ad hoc approach to enacting legislation for the provision of disaster relief.<sup>3</sup> From 1803 to 1938, Congress passed 128 separate acts providing disaster assistance.<sup>4</sup> Each legislative action occurred after the disaster for which federal assistance was provided. In 1950, Congress recognized that there was a need to prepare in advance for disasters. During debates concerning enactment of the Federal Disaster Relief Act (Disaster Relief Act of 1950), Members indicated a desire to authorize federal assistance before an event without the need for ad hoc legislation.

What we are dealing with here is emergencies that are bound to happen from time to time and without warning. The right thing to do is to make preparations in advance, as this bill does, so that the disasters, wherever they may arise, can be handled promptly in an intelligent and well-thought-out way, rather than wait until the last moment and then try to figure out some sort of improvised relief which is usually too little and too late.<sup>5</sup>

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<sup>1</sup> U.S. Department of Homeland Security, Federal Emergency Management Agency, *Disaster Fund Summary Report (DFSR), 1989 - 2007*, September 2007.

<sup>2</sup> Testimony of FEMA Director, James Lee Witt, in U.S. Congress, House Committee on the Budget, *Budgetary Treatment of Emergencies*, 105<sup>th</sup> Congress, 2<sup>nd</sup> sess., June 23, 1998 (Washington: GPO, 1998).

<sup>3</sup> Michele L. Landis, "Let Me Next Time Be Tried by Fire: Disaster Relief and the Origins of the American Welfare State 1789-1874," *Northwestern University Law Review*, vol. 92, no. 3 (Spring 1998), pp. 967-1034; House debate, Rep. Harold Hagen, Statement for the Record, Congressional Record, vol. 96, August 7, 1950, pp. 11900-11902.

<sup>4</sup> House debate, Rep. Harold Hagen, Statement for the Record, Congressional Record, vol. 96, August 7, 1950, pp. 11899-11902.

<sup>5</sup> *Ibid.*, p. 11899, comments by Mr. Judd.

The Disaster Relief Act of 1950 was significant because it shifted the primary decision-making for federal disaster assistance from the Congress to the President. Subsequent legislation and amendments continue to influence the role of the President and the states in federal disaster assistance. Once the President approves a disaster declaration, states may have access to federal funds for hazard mitigation. Hazard mitigation provisions in federal disaster assistance provide a basis for an analysis of the fiscal challenges and shifting federal role in disasters. This report discusses aspects of the Hazard Mitigation Grant Program (HMGP) that present challenges to federal fiscal management and raise questions regarding the federal role in hazard mitigation.

## Hazard Mitigation Concepts

Efforts to mitigate the impact of natural hazards have been undertaken for decades.<sup>6</sup> In the earliest history of community planning, leaders would consider the possible risks from flooding when deciding where to locate buildings along a body of water. Earthquakes, mud slides, hurricanes, wildfires, and other extreme weather events also pose a hazard to communities. Today, the challenges of mitigating the impacts of hazards are more complicated. Communities are increasingly confronted with natural disasters that are devastating and costly, and public officials are being challenged with providing for the safety of established communities.

Mitigation is an activity designed to reduce the impacts from such hazards or events. The Federal Emergency Management Agency (FEMA) defines mitigation as follows:

*Mitigation* is defined as any sustained action taken to reduce or eliminate long-term risk to life and property from a hazard event. Mitigation, also known as prevention (when done before a disaster), encourages long-term reduction of hazard vulnerability. The goal of mitigation is to decrease the need for response as opposed to simply increasing the response capability. Mitigation can save lives and reduce property damage, and should be cost-effective and environmentally sound. This, in turn, can reduce the enormous cost of disasters to property owners and all levels of government. In addition, mitigation can protect critical community facilities, reduce exposure to liability, and minimize community disruption.<sup>7</sup>

Mitigation activities are generally categorized as structural and nonstructural. Structural mitigation activities may include physical changes to a structure or development of standards such as building codes and material specifications. Physical changes to a structure could include retro-fitting a building to be more resistant to wind-hazards or earthquakes, or elevating a structure to reduce flood damage. Nonstructural activities may include community planning initiatives such as developing land-use zoning plans, disaster mitigation plans, and flood plans. Other nonstructural community activities may include participating in insurance programs and developing warning systems.

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<sup>6</sup> The terms hazard mitigation and disaster mitigation are often used interchangeably when discussing activities undertaken by individuals, communities, and branches of government to lessen the impact from “natural hazards.” A natural hazard, in comparison to a human-caused incident, is a condition such as a flood, severe storm, earthquake, tornado, or wildfire. A disaster is an event in which a natural hazard causes loss of life, damage to structures, or negative economic impacts. Disasters are also sometimes referred to as “hazard events.” A “major disaster” is one in which a natural hazard results in substantial loss of life, or economy.

<sup>7</sup> U.S. Department of Homeland Security, Federal Emergency Management Agency, *State and Local Mitigation Planning How-To Guide: Integrating Manmade Hazards into Mitigation Planning*, September 2003, p. vi.

Federal disaster mitigation assistance provides funding for both structural and nonstructural mitigation activities. A primary source of federal disaster mitigation assistance is the Hazard Mitigation Grant Program (HMGP), authorized by Section 404 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act).<sup>8</sup>

## **Hazard Mitigation Grant Program**

### **Legislative History**

Major disasters have often driven federal disaster assistance legislation. Early legislation provided federal disaster assistance on a case by case basis in reaction to a disaster event. As disasters increased in frequency, scope, and cost, Congress reconsidered this approach and passed legislation that would pro-actively establish guidelines for federal disaster assistance.<sup>9</sup> The Disaster Relief Act of 1974 (Disaster Relief Act), and subsequent amendments, established the basis for current federal disaster assistance. Most of the amendments to the Disaster Relief Act were enacted in response to a series of major disasters: Hurricane Carla in 1962, Hurricane Betsy in 1965, Hurricane Agnes in 1972, and a devastating earthquake in Alaska in 1964. These disasters caused considerable loss of life and property. The Disaster Relief Act of 1950 reduced the need to pass legislation each time a disaster occurred. While there was no longer a need to address each disaster individually, Congress was still concerned with the loss of life and increasing federal costs attributed to disasters. Hazard mitigation legislation provided a mechanism to enable Congress to address the impacts of disasters. While the Disaster Relief Act was intended to reduce the need for case by case disaster legislation, Congress continued to amend legislation to ease the impact of disasters.

### **1988 Amendment**

Congress took the first step in easing the impact from disasters after a series of hurricanes and flood events in the 1960s and 1970s that resulted in a significant increase in federal disaster spending. These events prompted Congress to introduce legislation to encourage hazard mitigation activities. In an effort to alleviate the costs of future disasters through mitigation, Congress amended the 1974 Disaster Relief Act in 1988. The amendment renamed the Disaster Relief Act as the Stafford Act and established the HMGP.<sup>10</sup> The amendment provided federal funds at a 50 percent cost-share and established the maximum federal funding available based on 10 percent of the estimated grants made under Section 406 of the Stafford Act.<sup>11</sup>

The purpose of the HMGP is to reduce the loss of life and damage to property in future disasters. The HMGP provides grants for long-term hazard mitigation projects after a major disaster declaration. A major disaster declaration is issued by the President under the authority of the

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<sup>8</sup> 42 U.S.C. §5170c.

<sup>9</sup> Disaster Relief Act of 1950, P.L. 81-875.

<sup>10</sup> P.L. 100-707, Title I, §106(a)(3), 102 Stat. 4698-4699.

<sup>11</sup> Major Disaster Relief and Emergency Assistance Amendments of 1987, P.L. 100-707. The public assistance program is also known as Section 406 of the Stafford Act. Section 406 provides federal grants for the repair, restoration, reconstruction or replacement of a public facility damaged or destroyed.

Stafford Act.<sup>12</sup> Once a Presidential declaration has been made, hazard mitigation assistance is available and project applications can be submitted. Long-term mitigation projects may include elevating properties, acquiring properties and converting them to open space, retrofitting buildings, and constructing floodwall systems to protect critical facilities.<sup>13</sup> Additional mitigation projects may be eligible. While the 1988 amendment established the foundation of hazard mitigation, the devastating disasters of the 1980s and 1990s led Congress to reassess the role of HMGP.

### **1993 Amendment**

Federal spending for disaster assistance under the Stafford Act continued to increase from 1989 to 1993, with total spending exceeding \$7.6 billion.<sup>14</sup> During this time, federal disaster assistance was largely attributed to hurricanes, earthquakes, and flood events. Hurricanes Hugo, Andrew, and Iniki, and widespread flooding in the Midwest, shifted the national focus on the need to reduce the risks related to disasters. After the Midwest floods in 1993, Congress once again evaluated hazard mitigation. The Hazard Mitigation and Relocation Assistance Act of 1993 (Mitigation Act of 1993) resulted in a significant change in the HMGP. While the program authorized funds for hazard mitigation, many cash-strapped states were unable to provide the 50% match necessary to implement an HMGP project. As a way to encourage states to utilize hazard mitigation funding, the federal cost-share for the HMGP was increased. The Mitigation Act of 1993 increased the federal cost-share from 50 percent to 75 percent and increased the amount of HMGP funding by changing the formula.<sup>15</sup> The statute also raised the ceiling of the program. The formula percentage used to determine the level of funding for HMGP was increased to 15 percent and the basis for funding was extended from just public assistance grant expenditures to all grant expenditures under Title IV of the Stafford Act, excepting administrative costs.<sup>16</sup> The Mitigation Act of 1993 also added property acquisition and relocation assistance provisions to the Stafford Act to encourage the purchase of properties and conversion to open space in areas affected by the Midwest floods in 1993 and subsequent floods.<sup>17</sup> This was a landmark shift in the prioritization of hazard mitigation as part of the total federal disaster assistance package and it is discussed in greater detail in the “Funding Formula” section of this report.

### **2000 Amendment**

In January 1994, a devastating earthquake in Northridge, California killed sixty people, injured over 7,000 people, and damaged over 40,000 buildings.<sup>18</sup> This disaster, in addition to significant

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<sup>12</sup> 42 U.S.C. §5170. For additional information on disaster declarations, see CRS Report RL34146, *FEMA's Disaster Declaration Process: A Primer*, by (name redacted).

<sup>13</sup> U.S. Department of Homeland Security, Federal Emergency Management Agency, *Fact Sheet: Hazard Mitigation Grant Program* (Washington, D.C., June 2007), p. 1.

<sup>14</sup> U.S. Department of Homeland Security, Federal Emergency Management Agency, *Summary of Disaster Relief Fund Obligations: 1988-2007*, September 2007.

<sup>15</sup> P.L. 103-181, §§2(a), 3, 107 Stat. 2054.

<sup>16</sup> *Ibid.*

<sup>17</sup> 42 U.S.C. §5170c(b).

<sup>18</sup> U.S. Geological Survey, Earthquake Hazards Program, *Historic Earthquakes: Northridge, California*, at [http://earthquake.usgs.gov/regional/states/events/1994\\_01\\_17.php](http://earthquake.usgs.gov/regional/states/events/1994_01_17.php), visited November 24, 2008.



flooding and a series of hurricanes in other states, generated renewed interest in hazard mitigation. The FEMA administration wanted to see an increase in mitigation activities while the appropriators were looking for cost-saving measures. In response to these needs, Congress increased, once again, the ceiling on federal assistance under Section 404. The Disaster Mitigation Act of 2000 (DMA 2000) increased the percentage cap by adding a provision that a state may be eligible for up to 20 percent of the total of public and individual assistance funds authorized for the disaster if the state has a FEMA-approved enhanced mitigation plan in place prior to the disaster.<sup>19</sup> This provision encouraged states to develop mitigation plans and to implement mitigation projects designed to reduce future federal disaster assistance costs.

### **2003 Amendment**

The 15 percent cap for hazard mitigation under Section 404 of the Stafford Act was decreased to 7.5 percent in 2003 for states without an approved enhanced mitigation plan.<sup>20</sup> This was, in part, a recognition of authorization of the Pre-Disaster Mitigation program.<sup>21</sup> However, the catalyst for this amendment is unknown.

### **2006 Amendment**

The Post-Katrina Emergency Management Reform Act of 2006 changed the percentage again to establish caps based upon the level of disaster assistance provided under the Stafford Act.<sup>22</sup> As amended by the 2006 statute, the statutory determination of HMGP awards reads as follows.

The total contributions under this section for a major disaster shall not exceed 15 percent for amounts not more than \$2,000,000,000, 10 percent for amounts of more than \$2,000,000,000 and not more than \$10,000,000,000, and 7.5 percent on amounts of more than \$10,000,000,000 and not more than \$35,333,000,000 of the estimated aggregate amount of grants to be made (less any associated administrative costs) under this Act with respect to the major disaster.<sup>23</sup>

The current statutory provisions do not address what percentage would be used to determine hazard mitigation funding for disasters that exceed \$35.333 billion. It would appear that special legislation would need to be enacted to provide mitigation funding for any disaster in excess of that amount. This is arguably consistent with the authority provided to the President. The Stafford Act has always provided the President with the discretion to change the percentage and the maximum funding available for hazard mitigation.<sup>24</sup> President George W. Bush exercised this discretion when he reduced the percentage of the HMGP formula to 5 percent instead of 15 percent after the terrorist attacks of September 11, 2001.<sup>25</sup> The authority for presidential discretion is contained within the language of the legislation. Use of the terms “shall not exceed

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<sup>19</sup> P.L. 106-390, Title I, §104(a), 114 Stat. 1558.

<sup>20</sup> P.L. 108-7, Title IV, §417, 117 Stat. 525.

<sup>21</sup> For more information on the Pre-Disaster Mitigation program, see CRS Report RL34537, *FEMA's Pre-Disaster Mitigation Program: Overview and Issues*, by (name redacted), p. 4.

<sup>22</sup> P.L. 109-295, Title VI, Subtitle E, §684, 120 Stat. 1447.

<sup>23</sup> 42 U.S.C. §5170c(a).

<sup>24</sup> 42 U.S.C. §5170c(a).

<sup>25</sup> United States House of Representatives, Representative Carolyn Maloney, “9/11 Commission Members are Right - NYC Deserves Fair Share of Homeland Security Aid,” press release, May 20, 2004.

15 percent” and “not more than” are open to presidential interpretation and reinforces the role of the President in determining federal disaster assistance. While the amount of federal assistance is determined by the President, the use HMGP funds is clarified in the regulatory provisions, subject to statutory restrictions.

### **110<sup>th</sup> Congress Legislation**

Legislation introduced in the 110<sup>th</sup> Congress would have expanded allowances for the use of HMGP funds administered by the Federal Emergency Management Agency (FEMA) in the Gulf Coast. These bills included the following:

- S. 825, a bill to provide additional funds for the Road Home Program;
- S. 1541, providing for Commonsense Rebuilding Act of 2007;
- S. 1668, Gulf Coast Housing Recovery Act of 2007;
- S. 1897, a bill to allow for expanded use of funding allocated to Louisiana under the hazard mitigation program;
- S. 2445, SMART RESPONSE Act; and,
- H.R. 1227, Gulf Coast Hurricane Housing Recovery Act of 2007.

Several of the proposed bills were seeking flexibility in the use of HMGP funds for use in the Louisiana Road Home Program by removing restrictions imposed by FEMA related to Road Home Program requirements. The two most commonly referenced program requirements were whether homeowners remained in Louisiana and the waiver of certain program requirements for senior citizens. None of the above bills became law.

### **111<sup>th</sup> Congress Legislation**

Legislation introduced in the 111<sup>th</sup> Congress include provisions that could expand hazard mitigation activities through financial assistance, a tax incentive, and a hurricane research initiative. These bills include the following:

- H.R. 1239, a bill that would establish a homeowner mitigation loan program;
- H.R. 308, a bill that would provide a tax credit for mitigation expenditures; and,
- H.R. 327, a bill that would create a National Hurricane Research Initiative to improve hurricane preparedness.

### **Regulatory Provisions**

The HMGP regulations provide guidance on common definitions, amounts of assistance, state responsibility, eligibility, project criteria, the application process, and the appeals process.<sup>26</sup> The regulations are used as the basis for the grant guidance developed by FEMA to administer the HMGP; applications submitted by state and local governments for HMGP projects must comply

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<sup>26</sup> 44 C.F.R. Subpart N §§206.430-206.440.

with requirements concerning conformance with state and local plans cost-effectiveness, and other standards, discussed below.

All mitigation projects are reviewed by FEMA to determine whether they meet statutory and regulatory guidelines. This section outlines these guidelines.

## Eligibility

Section 404 does not identify eligible applicants; eligibility has been established through regulations. Eligible applicants can be:

- state and local governments;
- private non-profit organizations (PNP); or,
- Indian tribes or tribal organizations.<sup>27</sup>

PNP organizations must meet specific criteria in order to be eligible:

Private nonprofit facility means any private nonprofit educational, utility, emergency, medical or custodial care facility, including a facility for the aged or disabled, and other facility providing essential governmental type services to the general public, and such facilities on Indian reservations.<sup>28</sup>

Eligible facilities that fall within the above definition may include water and sewage treatment facilities, fire and police stations, assisted living facilities, museums, zoos, and homeless shelters.

## Project Types

Projects eligible for funding under the HMGP include mitigation activities that reduce the effects of future disasters, such as the following:

- acquisition of high-risk properties for open space conversion;
- elevation of properties;
- retrofitting existing buildings;<sup>29</sup>
- vegetative management such as soil stabilization;
- stormwater management;
- structural flood control projects;<sup>30</sup> and,

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<sup>27</sup> 44 C.F.R. §206.434(a).

<sup>28</sup> 44 C.F.R. §206.221(e).

<sup>29</sup> Retrofitting existing buildings can include activities such as adding shutters to protect against high winds, attaching reinforcing clips to roofing, or using earthquake resilient building materials to replace older portions of a structure.

<sup>30</sup> Levee repair, maintenance, and enhancement projects are arguably considered mitigation activities and might potentially be considered eligible under the HMGP. While statutory and regulatory language does not expressly prohibit funding for projects for certain types of levees, such projects have historically not been funded under the HMGP except when there is an immediate risk to public safety. However, certain levee projects may be precluded from HMGP funding under the regulatory provision that HMGP funds cannot be used to substitute or replace funding (continued...)

- post-disaster code enforcement activities.<sup>31</sup>

A single project may include more than one of the above project types. Additional projects may be considered if they provide a cost-effective hazard mitigation benefit to the community. Determinations on project cost-effectiveness can be made by conducting a Benefit-Cost Analysis (BCA).

## Benefit-Cost Analysis

Policy analysts generally distinguish between cost-effectiveness and BCA. FEMA appears to use these concepts interchangeably since they have interpreted statutory cost-effectiveness requirements to mean that a BCA should be conducted. The Stafford Act provides that all hazard mitigation measures must be cost-effective.

The President may contribute up to 75 percent of the cost of hazard mitigation measures which the President has determined are cost-effective and which substantially reduce the risk of future damage, hardship, loss, or suffering in any area affected by a major disaster.<sup>32</sup>

Regulations stipulate that eligible mitigation projects must be cost-effective and substantially reduce the risk of future damage and loss from a major disaster.<sup>33</sup> The determination of cost-effectiveness is based on documentation that the project addresses a repetitive or significant public health and safety risk, that the benefits are greater than the cost, that the project is the best alternative, and that the project provides a long-term solution.<sup>34</sup> FEMA “recommends that a BCA is included with all HMGP project applications.”<sup>35</sup> The BCA can be conducted by the applicant or by the state utilizing the BCA software tool developed by FEMA.

## Five Percent Initiative

It may be difficult to estimate the benefits and costs of some hazard mitigation projects. A portion of HMGP funds has been set aside to fund projects that cannot be assessed with a BCA but that provide a strong hazard mitigation benefit to a community. Five percent of the total HMGP funds available under a major disaster declaration can be used for approved mitigation projects where a BCA cannot be successfully conducted.<sup>36</sup> The BCA may not be feasible because it may be too

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(...continued)

available under other federal programs except in dire circumstances (44 C.F.R. Subpart N §206.434(g)). For additional information on levees, see CRS Report RL33129, *Flood Risk Management and Levees: A Federal Primer*, by (name redacted) and (name redacted).

<sup>31</sup> U.S. Department of Homeland Security, Federal Emergency Management Agency, *Hazard Mitigation Grant Program Desk Reference* (Washington, D.C., October 1999), p. 7-1.

<sup>32</sup> 42 U.S.C. 5170c(a).

<sup>33</sup> 44 C.F.R. Subpart N §206.434(c)(5).

<sup>34</sup> Ibid.

<sup>35</sup> U.S. Department of Homeland Security, Federal Emergency Management Agency, *Hazard Mitigation Grant Program Desk Reference* (Washington, D.C., October 1999), section 9, p. 1.

<sup>36</sup> U.S. Department of Homeland Security, Federal Emergency Management Agency, *Hazard Mitigation Grant Program Desk Reference* (Washington, D.C., October 1999), section 7, p. 6. This initiative was not established in the statute.

administratively burdensome, or because the variables may be too difficult to quantify. Projects that may be funded under this provision include the following.

The use, evaluation, and application of new, unproven mitigation techniques, technologies, methods, procedures, or products that are developmental or research based; equipment and systems for the purpose of warning residents and officials of impending hazard events; hazard identification or mapping and related equipment that are tied to the implementation of mitigation measures; Geographical Information System software, hardware, and data acquisition whose primary aim is mitigation; public awareness or education campaigns about mitigation; and other activities, clearly falling under the goal of mitigation, for which benefits are unproven or not clearly measurable and which the State has listed as a priority in its Hazard Mitigation Plan.<sup>37</sup>

## **Duplication of Programs**

It is difficult to predict which projects might be considered under the 5 Percent Initiative because of a regulatory provision that prohibits use of any HMGP funds to supplant other federal funding that may be available for the project. This is considered a duplication of federal programs. The regulations stipulate that HMGP grant funds cannot be used to replace, or supplant, other federal funds available for the type of project proposed in an application.

Section 404 funds cannot be used as a substitute or replacement to fund projects or programs that are available under other Federal authorities, except under limited circumstances in which there are extraordinary threats to lives, public health or safety or improved property.<sup>38</sup>

This regulation provides FEMA officials with the discretion to determine whether there are other federal programs that would be more appropriate to fund the proposed HMGP project. FEMA officials may cite the program duplication regulation as justification for denying the mitigation project for funding under HMGP. However, FEMA officials have indicated there is an exception to this provision. FEMA allows HMGP funds to be used for projects that may be eligible for funding under the Community Development Block Grant (CDBG) program, administered by HUD, and the Small Business Administration (SBA) disaster loan program.<sup>39</sup>

## **Hazard Mitigation Plan Requirement**

The DMA 2000 amended the Stafford Act to include a requirement that state and local governments have a FEMA approved hazard mitigation plan in place in order to be eligible for HMGP funds.<sup>40</sup> The regulations set forth the basic criteria necessary for a state or local government to meet the mitigation plan requirement. The standard mitigation plan must include the following components:

- description of the planning process;
- risk assessment of natural hazards;

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<sup>37</sup> Ibid, p. 7.

<sup>38</sup> 44 C.F.R. §206.434(g).

<sup>39</sup> Telephone conversation between the author and Keith Turi, FEMA Mitigation Directorate, and Vince Fabrizio, FEMA Legislative Affairs, September 9, 2008.

<sup>40</sup> P.L. 106-390, Title I, §104(a), 114 Stat. 1558.

- mitigation strategy;
- process for coordination of local mitigation planning;
- plan maintenance process;
- plan adoption process; and,
- compliance assurances.<sup>41</sup>

Some communities may be eligible for an exception to the local mitigation plan requirement. At the discretion of the FEMA regional director, a project may be funded in communities without an approved mitigation plan if the community completes the plan within one year of the award of the project grant.<sup>42</sup> This exception is generally only approved for small and impoverished communities or in extraordinary circumstances. For example, many of the communities affected by Hurricanes Katrina and Rita did not have an approved mitigation plan in place at the time of the hurricanes.

### ***Enhanced State Mitigation Plan***

As noted earlier in this report, the DMA 2000 increased the percentage of funds available under the HMGP. States with an Enhanced State Mitigation Plan (ESMP) are eligible for up to 20 percent of the Title IV disaster assistance provided under the Stafford Act.<sup>43</sup> The ESMP must include all of the components of the standard state mitigation plan, provide documentation showing the integration of the ESMP with other state and regional planning initiatives, and document implementation of the ESMP.<sup>44</sup> The ESMP must have been approved by FEMA within three years prior to the disaster declaration in order to qualify under this provision.

## **Hazard Mitigation Funding**

Hazard mitigation activities can be financially challenging for state and local governments. The funding provided under the HMGP enables eligible applicants to undertake mitigation projects that they may otherwise not be able to afford. Changing the cost-share by increasing the federal portion and decreasing the state portion provides state and local governments with an opportunity to implement hazard mitigation by reducing the financial burden of the states.

### **HMGP Cost-Share**

The Mitigation Act of 1993 reduced the state cost-share from 50 percent to 25 percent.<sup>45</sup> This made mitigation projects potentially more affordable for states. Prior to the reduction of the state cost-share, many states had unexpended HMGP funds that spanned several years, largely due to the inability to contribute the 50 percent cost-share. Reducing the state cost-share to 25 percent encouraged implementation of mitigation projects but did not completely resolve the issue of

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<sup>41</sup> 44 C.F.R. §201.4(c).

<sup>42</sup> 44 C.F.R. §206.434(b)(2).

<sup>43</sup> 44 C.F.R. §201.5(a).

<sup>44</sup> 44 C.F.R. §206.5.

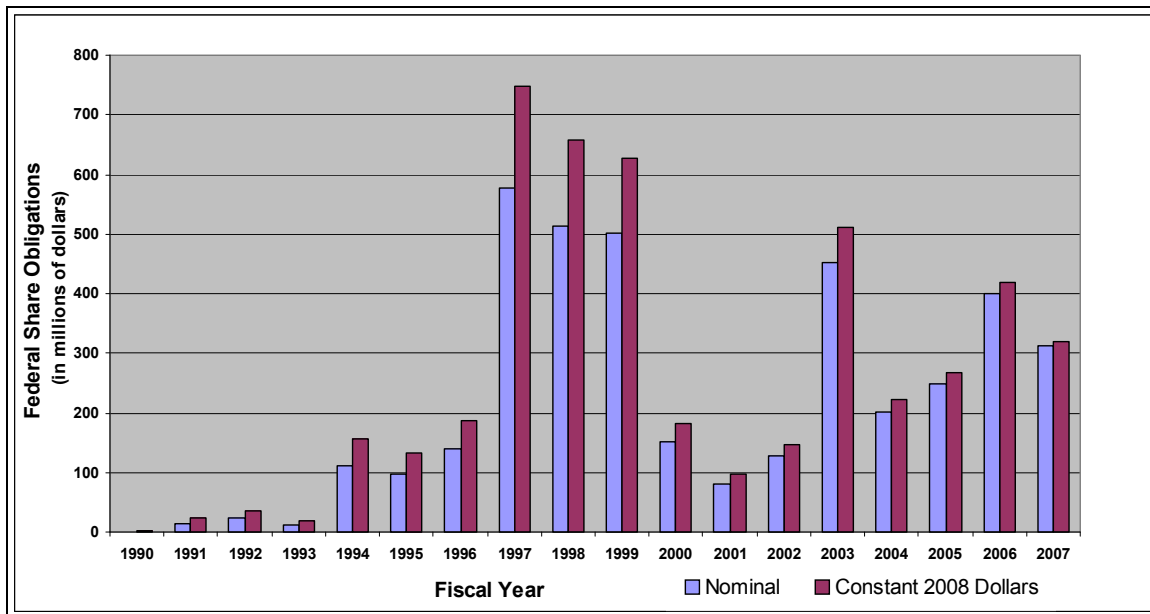
<sup>45</sup> P.L. 103-181, §§2(a), 3, 107 Stat. 2054.

unexpended HMGP funds. Additional discussion regarding unexpended HMGP funds is found in the “Congressional Issues” section of this report.

## Hazard Mitigation Awards

HMGP funds are available after the President declares a major disaster. The amount of HMGP funds available to a state is a function of the level of disaster assistance provided. Therefore, it is not possible to predict future HMGP funding needs. **Figure 1** and **Table 1** provide an overview of past HMGP federal share obligations (in current and constant dollars). **Figure 1** is a graphical presentation of the data in **Table 1**.

**Figure 1. Trends in Hazard Mitigation Grant Program Obligations, FY1990-FY2007**



**Source:** Department of Homeland Security, Federal Emergency Management Agency, Mitigation Division, Risk Reduction Branch, Grants Data Analysis and Tools Section, Mitigation Data Warehouse, query of best available data, January 19, 2007 for 1990-2006 data, and July 15, 2008 for 2007 data.

Several spikes in obligations can be seen in 1997, 1998, 1999, 2003, and 2006. These spikes can be attributed to the 1993 and Midwest Floods, the 1994 Northridge Earthquake, the 1999 Hurricane Floyd, the 2001 terrorist attacks, and the 2004 and 2005 Gulf Coast hurricanes.<sup>46</sup> Most of the spikes occur three to four years after the year of the disaster because of the grants administration process. Once the President declares a major disaster and HMGP funds become available, the state will establish a project application period. The submitted applications will then be reviewed and approved over several months. Once projects are awarded HMGP funding, the project can commence. Some mitigation projects can span several years since many contain structural renovation components. Therefore, the majority of HMGP funds are expended three to four years after funds are obligated.

<sup>46</sup> Obligations generally follow years after major catastrophes occur due to complications associated with extensive recovery efforts.

**Table I. Hazard Mitigation Grant Program Obligations, FY1990-FY2007**

FY	Total Obligations	
	Nominal (dollars)	Constant 2008 dollars <sup>a</sup>
1990	841,053	1,339,797
1991	14,777,850	22,595,333
1992	24,245,906	35,980,925
1993	12,528,275	18,053,244
1994	111,508,787	156,669,846
1995	97,775,338	133,561,112
1996	140,448,180	186,374,735
1997	577,766,630	749,363,319
1998	514,727,186	657,306,617
1999	502,351,907	627,939,884
2000	150,978,615	182,533,146
2001	81,275,556	95,580,054
2002	127,534,219	147,302,023
2003	453,822,816	511,912,136
2004	202,375,415	223,017,707
2005	248,345,476	266,971,387
2006	399,696,688	419,681,522
2007	312,007,498	319,807,685
<b>Total (all yrs)</b>	<b>3,973,007,395</b>	<b>4,755,990,472</b>

**Source:** Department of Homeland Security, Federal Emergency Management Agency, Mitigation Division, Risk Reduction Branch, Grants Data Analysis and Tools Section, Mitigation Data Warehouse, query of best available data, January 19, 2007 for 1990-2006 data, and July 15, 2008 for 2007 data.

- a. Conversion to 2008 constant dollars was based on the Consumer Price Index inflation calculator developed by the National Aeronautics and Space Administration (NASA), at <http://cost.jsc.nasa.gov/inflateCPI.html>.

## Congressional Issues

### Federalism and Disasters

The requirement that states initiate the request for federal assistance under the Stafford Act remains in effect today. Historically, states, localities and non-governmental organizations (NGOs) have undertaken disaster preparedness and response activities. Under the provisions of the Disaster Relief Act of 1950, the federal government deferred to state authority by providing assistance to states while assuming that the ultimate responsibility of disaster assistance remains with the states.



That it is the intent of Congress to provide an orderly and continuing means of assistance by the Federal Government to States and local governments in carrying out their responsibilities to alleviate suffering and damage resulting from major disasters.<sup>47</sup>

The enactment of the Disaster Relief Act of 1974, like subsequent amendments, did not significantly change the role of the states in the provision of federal disaster assistance.

All requests for a determination by the President that an emergency exists shall be made by the Governor of an affected State. Such request shall be based upon the Governor's finding that the situation is of such severity and magnitude that effective response is beyond the capabilities of the State and the affected local governments and that Federal assistance is necessary.<sup>48</sup>

In 1988, Congress enacted P.L. 100-707 to reinforce the primary role of the states, localities and voluntary NGOs by continuing the policy first established in 1950 that all requests for federal disaster assistance must be initiated by the governor of an affected state.<sup>49</sup> States continue to have a primary role in coordinating federal disaster assistance funds. However, as federal disaster assistance levels increase, the federal government may seek a more active role in designating and overseeing use of federal funds.

Current levels of federal disaster assistance provided under the Stafford Act would have been impossible to predict when disaster assistance legislation was first enacted. FEMA statistics indicate that the top ten highest ranking natural disasters, ranked by FEMA relief costs, occurred between 1989 and 2005.<sup>50</sup> These statistics show that the costs of disasters increased significantly since 1950 when the federal role in disasters began to take shape. The unprecedented levels of federal involvement in disasters, as measured in dollars, has resulted in congressional activity such as changing program cost-shares and considering block granting hazard mitigation programs. These activities highlight the changing federal role since the Disaster Relief Act of 1950.

Congress is reconsidering the role of the federal government in disaster-related policy areas, such as catastrophic risk insurance, taxation, public health, and housing issues.<sup>51</sup> Federal oversight of state and local disaster preparedness is also an area where the federal role has grown since catastrophic events such as the September 11, 2001 terrorist attacks and Hurricane Katrina. Specifically, the *National Strategy for Homeland Security* contained preparedness guidelines for

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<sup>47</sup> P.L. 81-875, 64 Stat. 1109.

<sup>48</sup> P.L. 93-288, 88 Stat. 146.

<sup>49</sup> For additional information on the Stafford Act, see CRS Report RL33053, *Federal Stafford Act Disaster Assistance: Presidential Declarations, Eligible Activities, and Funding*, by (name redacted).

<sup>50</sup> U.S. Department of Homeland Security, Federal Emergency Management Agency, *Top Ten Disasters: Ranked by FEMA Relief Costs*, available at <http://www.fema.gov/hazard/topten.shtm>, accessed on July 25, 2008.

<sup>51</sup> For additional information on catastrophic risk insurance, see CRS Report RL32825, *Hurricanes and Disaster Risk Financing Through Insurance: Challenges and Policy Options*, by (name redacted); for additional information on disaster-related taxation issues, see CRS Report RS22941, *Disaster Tax Relief for the Midwest*, by (name redacted); for additional information on disasters and public health issues, see CRS Report RL33579, *The Public Health and Medical Response to Disasters: Federal Authority and Funding*, by (name redacted); for additional information on disaster-related housing, see CRS Report RL34087, *FEMA Disaster Housing and Hurricane Katrina: Overview, Analysis, and Congressional Issues*, by (name redacted); and for additional information on state disaster housing programs, see CRS Report RL34410, *The Louisiana Road Home Program: Federal Aid for State Disaster Housing Assistance Programs*, by Natalie Paris Love.

health care providers and first responders.<sup>52</sup> The Departments of Health and Human Services and Homeland Security stated that they plan to continue to evaluate federal, state, and local preparedness plans.<sup>53</sup> More recently, the National Response Framework sets forth the federal role in oversight of federal, state, and local preparedness.<sup>54</sup> Given the changing nature of the role of the federal government in disasters, Congress may wish to consider whether the authorities and responsibilities contained within the Stafford Act still provide the best framework for federal disaster response.

## **Lag Between the Declaration and HMGP Allocation**

One issue that has been raised in appropriation hearings is the lag between the time of the disaster declaration and the allocation of HMGP assistance. Much attention has focused on the issue in light of the delay in the distribution of funds to the Gulf Coast after Hurricane Katrina. **Figure 2** details total Stafford Act mitigation disaster assistance expenditures for Hurricanes Katrina, Rita, and Wilma disaster declarations. As of September 1, 2008, over three years after the hurricanes struck, \$686 million has been allocated for hazard mitigation under the Hurricane Katrina, Rita and Wilma declarations. Three years after the event, only \$119.3 million, approximately 17% of the total allocated, had been expended.<sup>55</sup>

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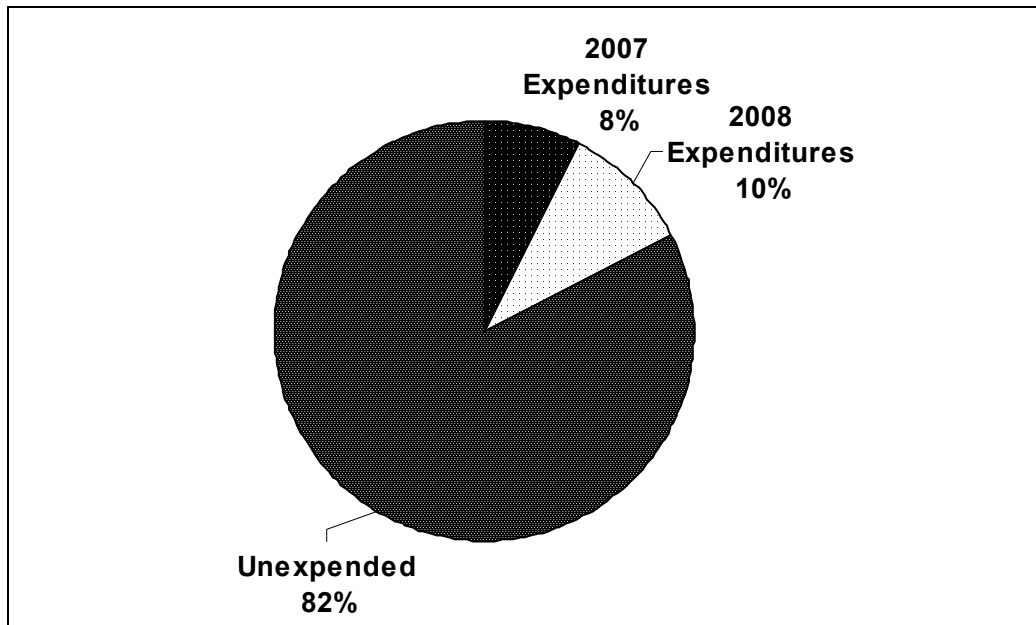
<sup>52</sup> U.S. Office of Homeland Security, *National Strategy for Homeland Security* (Washington: July 2002), p. 42. For additional information, see CRS Report RL31148, *Homeland Security: The Presidential Coordination Office*, by (name redacted).

<sup>53</sup> U.S. General Accounting Office, *Hurricane Katrina: Providing Oversight of the Nation's Preparedness, Response, and Recovery Activities*, GAO-05-1053T, September 28, 2005, p. 5.

<sup>54</sup> U.S. Department of Homeland Security, Federal Emergency Management Agency, *National Response Framework* (Washington: January 2008). For additional information on the National Response Framework, see CRS Report RL34758, *The National Response Framework: Overview and Possible Issues for Congress*, by (name redacted).

<sup>55</sup> U.S. Department of Homeland Security, Federal Emergency Management Agency, *Disaster Relief Fund Report: Allocations, Obligations, and Expenditures by Program Area for Katrina, Rita, and Wilma as of 09-01-2008* (Washington, D.C., September 1, 2008). Under the Stafford Act provisions in effect when Hurricanes Katrina, Rita, and Wilma struck the coastal states, states were eligible for up to 7.5 percent of the total Stafford Act allocations.

**Figure 2. Hurricanes Katrina, Rita, and Wilma FEMA Mitigation Funding as of September 1, 2008**



**Source:** U.S. Department of Homeland Security, Federal Emergency Management Agency, *Disaster Relief Fund Report: Allocations, Obligations, and Expenditures by Program Area for Katrina, Rita, and Wilma as of 09-07-2007 and 09-01-2008* (Washington, D.C., Sept. 7, 2007 and Sept. 1, 2008).

Grants administration complications create ineffective program implementation. A strong grants administration system is critical at all levels of government to prevent delays in HMGP expenditures.<sup>56</sup> A lag between the disaster declaration and allocation of hazard mitigation may be attributed to poor grant management systems at all levels of government, project prioritization disputes between local and state government, and state and federal government, or other factors. A lag such as that seen in the Katrina allocations suggests that Congress may wish to take a closer look at the causes of the funding delay. If part of the cause is the complexity of grant administration, one solution Congress may wish to consider is to consolidate federal hazard mitigation grant assistance. This could provide uniform and streamlined grant administration. This option is discussed in greater detail in the “Mitigation Grants Consolidation” section of this report, below. While grants administration plays a key role in effective programs, some complications may be attributed to decision-making disputes rather than management systems.

Some of the lag in expending HMGP funds can be attributed to decision-making disputes at the local level, and between local, state, and federal officials, as discussed in the preceding “Federalism” section of this report. When there is political gridlock at the local level, the project selection and application process is impeded. Without a pool of eligible project applications, the state is unable to expend HMGP funds.

One factor that contributes to the lengthy spans between allocation and expenditure involves disputes between state and FEMA officials regarding the mitigation benefits of a proposed project. FEMA holds the authority to approve HMGP project applications. In instances where the

<sup>56</sup> U.S. General Accounting Office, *Major Management Challenges and Program Risks: Federal Emergency Management Agency*, GAO-03-113, January 2003, pp. 12-13.

state believes a proposed project aligns with its mitigation objectives, FEMA officials may withhold project approval because it decides the project provides only an indirect mitigation benefit. For example, there is long-standing debate over the hazard mitigation benefit of responder communication systems. Some perceive communication infrastructure and interoperability a response function rather than a mitigation function since it improves the response time for emergency assistance. Others argue that improvements to responder communication systems integrated into local mitigation plans address a life saving and property protection objective.<sup>57</sup> For example, after Hurricanes Katrina and Rita, the State of Mississippi sought approval for the use of HMGP funds for a wireless communication system enhancement project. After unsuccessful discussions with FEMA officials, state officials sought congressional intervention rather than submit an HMGP application for the project.<sup>58</sup> Congress resolved the dispute when it set aside approximately \$20 million of HMGP funds for the State of Mississippi to fund a portion of the communication system project.<sup>59</sup>

When the lag between allocation and expenditure of HMGP funds becomes significant, there may be a need for congressional intervention to prevent the withdrawal of approval for HMGP funds. Under program administration provisions of the Stafford Act, the President has the authority to withdraw approval for hazard mitigation assistance if it is determined that the state is not administering the hazard mitigation grant program in a satisfactory manner.<sup>60</sup> To reduce the potential need for presidential intervention and loss of funding, Congress may wish to consider making specific provisions for state administration of the program, providing for expedited dispute resolution, or restructuring the grant administration time frame in order to reduce the lag between grant allocations and expenditures.

### **Expedited HMGP Assistance**

One method of restructuring the time frame for HMGP grant administration may be to consider ways to expedite HMGP assistance. Many state and local mitigation plans identify mitigation activities even before a disaster occurs. When HMGP funds become available, states may choose to apply for funding for these projects rather than identify new projects. For example, each state has a list of properties that meet the criteria to be designated a repetitive loss property. If the state officials choose to prioritize the buy-out of such properties, they may have a list of properties that they can submit to FEMA to be pre-certified as eligible for HMGP funding should the funding become available at a later date.

The benefits of hazard mitigation activities are widely understood. However, unless mitigation activities are undertaken in a timely fashion, communities may continue to face the same level of risk for loss of life and property from future disasters. These losses may be diminished or averted once available hazard mitigation funds are expended. While congressionally directed spending may potentially address some of the complications causing delays in expending HMGP funds, additional solutions may be necessary to resolve management and decision-making issues.

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<sup>57</sup> State of Mississippi, Harrison County, *Harrison County Multi-jurisdictional Hazard Mitigation Plan*, draft document, August 2008, at <http://co.harrison.ms.us/mitigation/HCMP%20-%20Section%2002%20Planning%20Process.pdf>.

<sup>58</sup> Telephone conversation between the author and Keith Turi, FEMA Mitigation Directorate, and Vince Fabrizio, FEMA Legislative Affairs, September 9, 2008.

<sup>59</sup> P.L. 110-161, 121 Stat. 2093, Sec. 573(b).

<sup>60</sup> 42 U.S.C. §5170c(c)(4).

Congress may wish to consider whether setting aside a portion of HMGP assistance would expedite projects that may already be contained within local and state hazard mitigation plans and are awaiting funding.

## Estimating Actual Costs of Hazard Mitigation

While some may argue that hazard mitigation is costly, others suggest that hazard mitigation measures will result in savings by reducing the costs of future disasters. In 2005, the Multihazard Mitigation Council (MMC) conducted a study to assess the costs and benefits of hazard mitigation. The study concluded that for every dollar spent on hazard mitigation, there was an average savings of four dollars.<sup>61</sup> This “spend now and save later” theory was reflected in changes to HMGP percentages both before and after the MMC study.

As discussed previously, the Mitigation Act of 1993 increased the basis for determining the HMGP amount by changing the calculation to include all Stafford Act Title IV assistance rather than just Section 406 assistance. The Mitigation Act of 1993 also increased the percentage of that basis from 10 percent to 15 percent.<sup>62</sup> The DMA 2000 increased the percentage to 20 percent for states that undertake mitigation planning.<sup>63</sup> Taken together, the Mitigation Act of 1993 and the DMA 2000 resulted in a significant estimated increase in HMGP federal share obligations.

Under the “spend now and save later” theory, hazard mitigation is an effective policy tool in that it has been found to be cost effective and saves lives and property. Given that general understanding, the topic of fiscal management may be raised. One issue is how Congress can adequately estimate the cost of hazard mitigation and better anticipate funding levels. Estimating the impacts of changes to the formula used to determine the amount of funds available under the HMGP presents a fiscal management challenge. The difficulty Congress faces in allocating funds for hazard mitigation is evident in the Congressional Budget Office (CBO) cost estimate of the Mitigation Act of 1993 prior to its enactment. In a House committee report, CBO estimated that the Mitigation Act of 1993 would result in an average annual outlay increase of \$18 million in fiscal year 1994.<sup>64</sup> The actual average annual increase resulting from the Mitigation Act of 1993, shown in **Table 2**, is approximately \$344 million, which varies significantly from the CBO projected impact of \$18 million in FY1994.

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<sup>61</sup> Multihazard Mitigation Council, *Natural Hazard Mitigation Saves: An Independent Study to Assess the Future Savings from Mitigation Activities*, 2005, p. 5.

<sup>62</sup> P.L. 103-181, §§2(a), 3, 107 Stat. 2054.

<sup>63</sup> Disaster Mitigation Act of 2000, P.L. 106-390.

<sup>64</sup> U.S. Congress, House Committee on Public Works and Transportation, *Hazard Mitigation and Flood Damage Reduction Act of 1993*, report to accompany H.R. 3445, 103<sup>rd</sup> Cong., 2<sup>nd</sup> sess., H.Rept. 103-358 (Washington: GPO, 1993), p. 9. The CBO estimate only provided predictions for one year.

**Table 2. Mitigation Obligations Resulting from 1993 Amendment, FY1994-FY2003**  
(In Constant 2008 Dollars)

Fiscal Year	HMGP Federal Share Obligations	Dollar Increase Resulting from 1993 Amendment
1994	\$1,648,268,736	\$900,426,062
1995	\$258,391,108	\$191,073,075
1996	\$450,127,952	\$294,105,529
1997	\$328,992,688	\$200,902,177
1998	\$659,537,543	\$448,417,357
1999	\$302,511,805	\$203,600,371
2000	\$111,966,327	\$63,302,475
2001	\$1,571,788,642	\$819,268,892
2002	\$142,670,198	\$88,288,734
2003	\$360,033,797	\$238,014,142
<b>Total</b>	<b>\$5,834,288,796</b>	<b>\$3,447,398,814</b>
<b>Average Annual Increase</b>		<b>\$344,739,881</b>

**Source:** CRS Calculations based on data obtained from the Department of Homeland Security, Federal Emergency Management Agency, Mitigation Division, Risk Reduction Branch, Grants Data Analysis and Tools Section, Mitigation Data Warehouse, query of best available data, January 19, 2007 for 1994-2003 data.

**Note:** The table only provides CRS compiled data through FY2003 because in 2003, P.L. 108-7 lowered the HMGP 15 percent cap to 7.5 percent for states without an approved ESMP.

## Risk Assessment and Disaster Prediction Accuracy

The successful implementation of programs such as HMGP relies heavily on the assumption that the location and scope of disasters can be adequately estimated. In order to successfully mitigate the impact of a disaster, communities must have an accurate estimate of where the hardest impact will be felt. The accuracy of risk assessments and impact predictions provide the foundation for fund prioritization at the local, state, and federal level.

Communities have limited resources to commit to activities such as hazard assessment. Community leaders are often faced with choosing between relocating a school that resides in a flood plain or constructing a tornado shelter in the park that hosts a multitude of events for families. Risk assessment tools such as flood maps and computer simulations are used to make project prioritization decisions. An inaccurate risk assessment could adversely impact hazard mitigation project selection and result in an inefficient use of funds. Legislation was introduced in the 111<sup>th</sup> Congress that would establish a National Hurricane Research Initiative (NHRI).<sup>65</sup> The NHRI would conduct research to improve hurricane preparedness. Hurricane preparedness research includes evaluating hurricane intensity predictions, understanding ocean-atmosphere interactions, predicting storm surge, rainfall, and wind impacts, improving storm measurements, assessing structural vulnerability, and hurricane related technology and planning. Congress may

<sup>65</sup> H.R. 327 (111<sup>th</sup> Congress).

wish to consider expanding this initiative to include assessing the accuracy of flood insurance rate maps utilized in hazard mitigation.

Project selection is also dependent on tools such as the Benefit-Cost Analysis (BCA). Local, state, and federal officials utilize this tool to make project funding decisions. The accuracy of risk assessment tools and a BCA depend on the accuracy of the information that is used. If a local or state government is using outdated flood maps, or relying on default variables in simulation models, the result may not be the best prediction of the location or impact from a disaster.<sup>66</sup> State and local governments are limited in their capacity to evaluate the accuracy of risk assessment tools and to conduct a BCA. Though some federal grant programs provide funding for planning and technical assistance, Congress may wish to consider increasing the funding to provide a greater degree of technical expertise in risk assessment and disaster impact predictions. Congress may also wish to consider enacting an overarching risk analysis mandate to ensure uniformity in regulations and predictive tools used in public safety policy areas.

### **Overarching Risk Analysis Mandate**

BCA requirements such as those contained within the HMGP are similar to risk analysis requirements for other federal agencies and programs. While there has been some congressional effort to implement an overarching mandate for risk analysis in agencies that develop regulations, no mandate has been enacted.<sup>67</sup> The Environmental Protection Agency (EPA) has had a long-standing mandate to conduct risk analysis when establishing regulatory provisions. Congress may wish to consider implementing an overarching mandate for risk analysis of federal agencies involved in public safety.

### **Use of Benefit-Cost Analysis**

As discussed previously, in 2005, the MMC conducted a study which concluded that every dollar spent on mitigation saved an average of four dollars.<sup>68</sup> The MMC was established in 1997 as a voluntary, advisory body of the National Institute of Building Sciences. The MMC study provided guidance on utilizing the Benefit-Cost Ratio (BCR). A BCR is the statistical result of a BCA. A BCR of one (1) means that for every dollar spent, there is a dollar benefit. The BCA software for the HMGP assigns a dollar benefit to a wide array of variables so that less quantifiable benefits such as reduction in the risk of loss of life can be estimated. After the MMC study, the most-competitive mitigation projects were considered by FEMA to be those that had a BCR of four (4) or higher. This does not mean that a project with a BCR less than four (4) is not eligible for funding. However, the BCR serves as a tool for prioritizing projects. Projects with a higher BCR are often funded in lieu of projects with a lower BCR. With such emphasis on the BCR, Congress may wish to consider augmenting the technical expertise of the applicants and reviewers at the local and state level. The technical assistance would determine the degree of federal technical

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<sup>66</sup> One simulation modeling software is the HAZUS software. For additional information on HAZUS, see <http://www.fema.gov/plan/prevent/hazus/index.shtm>.

<sup>67</sup> For additional information on Congressional efforts to implement overarching risk analysis mandates, see CRS Report RL30031, *Environmental Risk and Cost-Benefit Analysis: A Review of Proposed Legislative Mandates, 1993-1998*, by (name redacted).

<sup>68</sup> Multihazard Mitigation Council, *Natural Hazard Mitigation Saves: An Independent Study to Assess the Future Savings from Mitigation Activities*, 2005, p. 5.

assistance that may be necessary to ensure that each potential applicant has an equal chance of attaining funding.

## **Hazard Mitigation Grant Program Consolidation**

Several federal programs provide funding for hazard mitigation activities. Hazard mitigation is an eligible activity under the Pre-Disaster Mitigation grant program, the Flood Mitigation grant program, the Repetitive Flood Claims grant program, and the Severe Repetitive Loss grant program.<sup>69</sup> Some may contend that block granting all hazard mitigation programs could provide more effective grants administration at the state and federal level. Block grants allow for more flexibility in the use of funds and often reduces grant program requirements.<sup>70</sup> Block grants also present more of a challenge for Congressional oversight because of the reduced requirements. Hazard mitigation block grants could also potentially address the decision-making complications for allocating HMGP funds by enhancing state discretion regarding risks and project selection priorities. Congress may wish to consider consolidating all federal hazard mitigation grant programs into one hazard mitigation block grant.

## **Separation of HMGP from Disaster Declarations**

Hazard mitigation scholars support the idea that hazard mitigation spending should be linked to disaster declarations because communities may be more likely to implement hazard mitigation activities immediately after a disaster. However, when several years go by without expending available mitigation funds, there is less justification for linking HMGP funds to a disaster declaration. In the FY2003 budget, President George W. Bush attempted to replace HMGP with a competitive consolidated hazard mitigation grant program that would be not be linked to a disaster declaration.<sup>71</sup> While Congress rejected the Bush Administration's budget proposal to eliminate HMGP, they did move resources into the existing Pre-Disaster Mitigation grant program.<sup>72</sup> Given the delays in expending HMGP funds (see **Figure 2** of this report), Congress may wish to consider changing the HMGP so that funding authorization is not dependent upon a disaster declaration, but is linked to other mitigation program funding decisions.

## **Assistance to Small Businesses**

Under current authorities, private businesses are not eligible to apply for HMGP funding. Traditionally, funds are awarded to a state agency and are then passed down to the local government and/or individuals through state-administered programs and projects.<sup>73</sup> Legislation

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<sup>69</sup> All of these programs are administered by the Federal Emergency Management Administration. For additional information on the Pre-Disaster Mitigation grant program, see CRS Report RL34537, *FEMA's Pre-Disaster Mitigation Program: Overview and Issues*, by (name redacted). For additional information on repetitive flood loss and flood mitigation, see CRS Report RL32972, *Federal Flood Insurance: The Repetitive Loss Problem*, by (name redacted).

<sup>70</sup> Kenneth Finegold, Laura Wherry, and Stephanie Schardin, "Block Grants: Details of the Bush Proposals," Urban Institute, *New Federalism Series*, no. A-64, April 2004, p. 1.

<sup>71</sup> U.S. President (G.W.Bush), *Budget of the United States Government: Fiscal Year 2003* (Washington: GPO, 2003), p. 318.

<sup>72</sup> For additional information, see CRS Report RL34537, *FEMA's Pre-Disaster Mitigation Program: Overview and Issues*, by (name redacted).

<sup>73</sup> U.S. Department of Homeland Security, Federal Emergency Management Agency, *Hazard Mitigation Assistance* (continued...)



pending before the 111<sup>th</sup> Congress (H.R. 308) would establish a tax credit for business owners, as well as individuals, who undertake specified property improvements that will ameliorate hurricane and tornado damage.

However, mitigation activities undertaken after a disaster augment the repair of residential structures and restoration of infrastructure, and mitigate the damage from future disasters. Communities, including private businesses, benefit from these activities. State disaster recovery programs may include funds to repair or develop commercial rental properties as part of a comprehensive housing recovery plan.<sup>74</sup> While the state program as a whole may receive a portion of funding from HMGP, the elements of the program that provide direct assistance to rental properties and developers usually come from other federal funding sources.<sup>75</sup>

Small businesses may also benefit from the property acquisition and relocation provision under Section 404. This provision allows a structure that has experienced repetitive flood damage to be purchased with HMGP funds and relocated to a less flood-prone location.<sup>76</sup>

Communities and private businesses also benefit from state implemented projects that may be funded under FEMA mitigation grant programs. For example, the State of Massachusetts received HMGP funds for a drainage project. Prior to the drainage project, the community experienced severe repetitive flood damage. The Jericho Road Drainage Project was completed in 2007. According to the Massachusetts Emergency Management Agency, the project was “designed to minimize recurrent flood damage to public and private structures in the area.”<sup>77</sup> Since completion of the project, storms resulted in substantially less flood damage to all structures, including private businesses.

FEMA mitigation grants also provide funding for disaster planning. Even though the federal funds are awarded to state and local governments to develop disaster mitigation plans, one of the main planning requirements is the inclusion of private businesses in the development of the plans.<sup>78</sup> This provides private businesses an opportunity to participate in prioritizing projects and programs that are eligible for federal mitigation assistance. However, Congress may wish to consider providing additional opportunities for private businesses to undertake hazard mitigation activities by expanding eligibility requirement beyond those currently established in regulations.

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(...continued)

*Program Guidance* (Washington, D.C., June 19, 2008), p. 8.

<sup>74</sup> State of Louisiana, Office of Community Development, Louisiana Recovery Authority, *The Road Home Housing Program Action Plan Amendment for Disaster Recovery Funds* (Louisiana, May 2006), p. 17.

<sup>75</sup> The largest portion of federal funding for the Louisiana Road Home program was provided under the Community Development Block Grant administered by the Department of Housing and Urban Development. For additional information on the Road Home program, see CRS Report RL34410, *The Louisiana Road Home Program: Federal Aid for State Disaster Housing Assistance Programs*, by Natalie Paris Love.

<sup>76</sup> 42 U.S.C. §5170c(b).

<sup>77</sup> U.S. Department of Homeland Security, Federal Emergency Management Agency, “Federal Grant Helps Massachusetts Weather Storm,” Mitigation Best Practices, September 13, 2007, at <http://www.fema.gov/mitigationbp/brief.do?mitsId=4306>.

<sup>78</sup> U.S. Department of Homeland Security, Federal Emergency Management Agency, *Local Multi-Hazard Mitigation Planning Guidance* (Washington, D.C., July 1, 2008), p. 26.

## Concluding Observations

Hazard mitigation embodies a concept that is widely accepted: such efforts save lives and protect property in disasters. While there is widespread support for hazard mitigation, there are challenges that pose barriers to effective hazard mitigation.

Current economic conditions at the federal, state and local level have brought attention to fiscal management challenges in many areas of government. One such area is hazard mitigation. The fiscal management challenges and the role of the federal government in hazard mitigation programs will likely be considered in light of recent catastrophic events and current economic conditions.

Hazard mitigation is a concept supported through a multitude of federal agency programs and at all levels of government. Today, the burden for hazard mitigation still lies predominately with individuals and local government. The federal government encourages state and local governments to address hazards through various programs, notably HMGP. Understanding the fiscal management challenges of hazard mitigation programs is critical in evaluating current and future programs. Additionally, consideration of the federal role in hazard mitigation includes areas where complications in implementing hazard mitigation activities have arisen. One area of complication is the lag between a major disaster declaration and expenditure of federal hazard mitigation assistance. Another area is the structure of grants administration at the federal, state, and local level.

A decision by Congress to increase federal hazard mitigation assistance would potentially address some problems and challenges; however, that approach may not ensure greater effectiveness. The potential cost savings of hazard mitigation has to be weighed against the fiscal management challenges of estimating the costs. Other approaches may include changing the structure of mitigation grants by consolidating federal programs, modifying grant eligibility criteria, and funding certain project types to provide a higher degree of technical assistance for risk assessment. An evaluation of the risk analysis used in federal programs and public safety regulations may also provide a higher degree of effective hazard mitigation. Now that hazard mitigation has become an established and accepted concept among stakeholders, Congress may wish to consider what additional steps will strengthen the foundation they have built.

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