

# Department of Homeland Security **Office of Inspector General**

FEMA Region VI Should Ensure the Cost Effectiveness  
of Texas Hazard Mitigation Grant Projects



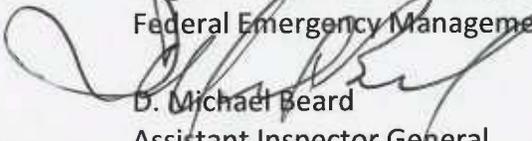


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MAY 3 2013

MEMORANDUM FOR: George A. Robinson  
Regional Administrator, Region VI  
Federal Emergency Management Agency

FROM:   
D. Michael Beard  
Assistant Inspector General  
Office of Emergency Management Oversight

SUBJECT: *FEMA Region VI Should Ensure the Cost Effectiveness of  
Texas Hazard Mitigation Grant Projects*  
Audit Report Number DD-13-10

The objective of this report is to summarize the results of four Hazard Mitigation Grant Program (HMGP) audits we conducted in the State of Texas and to identify additional conditions that warrant further FEMA Region VI attention. Our audit objectives for the four audits were to determine whether (1) the subgrantees accounted for and expended Federal Emergency Management Agency (FEMA) grant funds according to Federal regulations and FEMA guidelines, (2) the projects met FEMA eligibility requirements, and (3) project management complied with applicable regulations and guidelines.

We conducted this performance audit between July 2012 and January 2013 pursuant to the *Inspector General Act of 1978*, as amended, and according to generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based upon our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based upon our audit objectives. We conducted this audit according to the statutes, regulations, and FEMA policies and guidelines in effect at the time of the referenced disasters.

We summarized the results of four HMGP audits we conducted in the State of Texas (see table 1), identified additional conditions that warrant further FEMA Region VI attention, interviewed FEMA and Texas Division of Emergency Management (TDEM) officials, and performed other procedures considered necessary to accomplish our objective. We did not assess the adequacy of internal controls applicable to these grant audits because it was not necessary to accomplish our audit objective. However, we did



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gain an understanding of FEMA and TDEM's adherence to HMGP regulations and guidelines relevant to the four audits we completed.

### BACKGROUND

FEMA provides HMGP grants on a cost-shared basis to eligible applicants within a State declared eligible for Federal assistance to implement measures designed to reduce the loss of life and property from natural disasters. FEMA's eligibility criteria require applicants to have a FEMA-approved hazard mitigation plan and require projects to be cost-effective, comply with environmental and historic preservation requirements, and provide a long-term beneficial impact. Eligible applicants include State and local governments, certain private nonprofit organizations and institutions, and Indian tribes or tribal organizations. Although FEMA is primarily responsible for determining project eligibility, the State as grantee is required to demonstrate that the project is cost-effective. The grantee also has primary responsibility for project management and the accountability of funds.

As a result, of three major disasters the President declared between June 2001 and January 2006 in the State of Texas, the four subgrantees listed in table 1 applied for and received HMGP grant awards from TDEM, a FEMA grantee, between January 2003 and March 2008. These grant awards were for mitigation projects that FEMA approved to (1) relocate and replace critical electrical and mechanical systems above flood elevations and protect basements with perimeter flood protection, (2) acquire and remove residential properties to mitigate future losses, (3) build residential safe rooms, and (4) construct a drainage improvement structure to mitigate future flooding losses.

### RESULTS OF AUDIT

We audited \$68 million of FEMA HMGP funds that TDEM awarded to four subgrantees in the State of Texas. Table 1 shows that we questioned \$17.7 million, or 26 percent of the \$68 million. The majority of our questioned costs related to projects that were not cost-effective and, therefore, did not meet FEMA eligibility requirements. Further, a scope limitation in our audit of the University of Texas, MD Anderson Cancer Center, precluded us from reviewing the cost effectiveness of six projects totaling \$31.4 million. Had we been able to review the cost effectiveness of these projects, the total amount we questioned might have increased significantly.



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**Table 1. Summary of Four Texas HMGP Audits**

Subgrantee & Report Number/Date	Disaster Number	# of Projects Audited	Project Type	Award Amount	Questioned Costs
University of Texas, MD Anderson Cancer Center, DD-11-01, October 2010 <sup>1</sup>	1379	6	Retrofit	\$31,431,066	\$ 596,670
City of Austin, DD-11-13, April 2011	1606, 1624	2	Acquisition & Demolition	11,609,411	831,629
Panhandle Regional Planning Commission, DD-12-03, November 2011	1606	1	Safe Rooms	8,629,000	0
Comal County, DD-12-13, June 2012	1606	1	Drainage	16,302,516	16,302,516
<b>Totals</b>	<b>3</b>	<b>10</b>		<b>\$67,971,993</b>	<b>\$17,730,815</b>

<sup>1</sup> We were unable to complete our audit scope for the University of Texas, MD Anderson Cancer Center.

The following summarizes our findings and recommendations in the three reports that included reportable conditions.

- In the University of Texas, MD Anderson Cancer Center report, DD-11-01, we questioned \$596,670 in unsupported costs (\$510,491) and ineligible contract costs (\$86,179). However, we could not determine the cost effectiveness, and thus the eligibility, of six projects totaling \$31.4 million because FEMA did not retain documentation to support benefit cost analyses (BCA). If not for this audit scope limitation, we may have questioned significantly more of the award.
- In the City of Austin report, DD-11-13, we questioned \$831,629, comprised of \$596,150 for one project that was not cost-effective and \$235,479 for ineligible labor costs.
- In the Comal County report, DD 12-13, we questioned the entire \$16.3 million grant because the project was not cost-effective.

The reportable conditions we identified occurred because FEMA and TDEM did not always comply with Federal regulations or FEMA guidelines, and TDEM did not always fulfill its grantee responsibilities. Therefore, FEMA Region VI should—



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- Ensure that its regional States develop, document, and implement procedures for demonstrating that HMGP projects are cost-effective and will not cost more than the estimated benefits as required by 44 CFR 206.434(c)(5),<sup>1</sup> and
- Require TDEM to develop, document, and implement procedures to ensure that it reimburses subgrantees for only eligible costs.

#### **Finding A: Grantee Responsibilities in Evaluating Project Cost-Effectiveness**

Two of the four audits we conducted (City of Austin and Comal County) revealed deficiencies in the BCA review and approval procedures at both the grantee and FEMA levels. Further, we were unable to review these procedures in our audit of the University of Texas, MD Anderson Cancer Center because BCA records were not available to us. The State requested FEMA to perform the BCAs for all approved projects. FEMA hired a contractor to conduct the BCAs necessary for determining the eligibility of MD Anderson’s projects, but neither FEMA nor its contractor could provide the BCA support data that we requested. Because the BCA records were not available for our review, we could not determine the eligibility of the six MD Anderson projects totaling \$31.4 million. Therefore, based on the results of three of the four Texas HMGP audits that we completed, TDEM and FEMA need to improve their BCA review and approval procedures.

FEMA establishes its cost-effective analyses on the principle that a project has to return more money (benefit) over its life than it costs initially. The return is money saved because a mitigation measure reduces or prevents future damages. FEMA’s guidance further describes “cost-effective” as having a benefit-to-cost ratio of one or greater.

Federal regulation 44 CFR 206.434(c)(5) states that, to be eligible for the HMGP, a project must be cost-effective and substantially reduce the risk of future damage, hardship, loss, or suffering resulting from a major disaster. The regulation further states that the grantee must demonstrate this by documenting that the project—

- Addresses a problem that has been repetitive, or a problem that poses a significant risk to public health and safety if left unsolved;
- Will not cost more than the anticipated value of the reduction in both direct damages and subsequent negative impacts to the area if future disasters were to occur;

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<sup>1</sup> Disasters prior to fiscal year 2003 used 44 CFR 206.434(b)(5).



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- Has been determined to be the most practical, effective, and environmentally sound alternative after consideration of a range of options;
- Contributes, to the extent practicable, to a long-term solution to the problem it is intended to address; and
- Considers long-term changes to the areas and entities it protects, and has manageable future maintenance and modification requirements.

This requirement specifically places responsibility on the grantee for demonstrating that a project is cost-effective and will not cost more than the estimated benefits. However, TDEM did not perform its responsibilities in 8 of the 10 projects we audited (6 MD Anderson projects, 1 City of Austin project, and 1 Comal County project).

For all of the MD Anderson projects, TDEM requested that FEMA perform the BCAs. Additionally, TDEM did not adequately review the BCA data submitted for one of two City of Austin projects and the Comal County project. If TDEM had properly reviewed these BCAs, it would have determined that—

- The City of Austin did not use the factors and assumptions in the BCA module that it claimed it would use; and
- Comal County omitted engineering costs when calculating the BCA, and did not perform its BCA on a net present value basis as Federal regulations required (44 CFR 206.434(c)(5)(ii)).<sup>2</sup>

Conversely, TDEM demonstrated that the Panhandle Regional Planning Commission project and one City of Austin project were cost-effective, indicating that TDEM is capable of performing its grantee responsibilities as described in 44 CFR 206.434(c)(5). Therefore, FEMA should ensure that all regional States develop and implement project review and approval processes and procedures to ensure that grantees demonstrate that a project is cost-effective. This report is not making a similar recommendation for the region to improve its own procedures because, in our Comal County audit report, we recommended that the region develop and implement project review and approval processes and procedures to ensure that project eligibility requirements are enforced in the future.

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<sup>2</sup> FEMA approved this Comal County project using grant funds from a major disaster declared in September 2005. Therefore, Federal regulations dated October 1, 2004, applied at the time.



## **Finding B: Grant Management Responsibilities**

TDEM did not always fulfill its grant management responsibilities. As stated previously, TDEM did not always ensure that projects were cost-effective as Federal regulations required. In addition, TDEM reimbursed subgrantees for ineligible project costs. According to 44 CFR 13.37(a)(2), the grantee is required to ensure that subgrantees are aware of requirements imposed on them by Federal regulations. Further, 44 CFR 13.40(a) requires the grantee to manage the day-to-day operations of subgrant activity and monitor subgrant activity to ensure compliance with applicable Federal requirements.

### City of Austin

TDEM reimbursed the City of Austin \$235,479 in ineligible indirect costs that we questioned in our audit report. According to the City of Austin, city departments routinely include indirect costs when billing each other for services. According to TDEM, it discussed this issue with FEMA and, based on information FEMA provided, decided not to question these costs. FEMA did not recall discussing this matter with TDEM, but determined that TDEM should not have reimbursed these indirect costs to the City and deobligated these funds based on our audit.

### Comal County

As previously stated, we determined that Comal County's project was ineligible because it was not cost-effective. In addition, of the \$16.3 million that FEMA approved for this project, TDEM reimbursed Comal County for engineering and design (E&D) costs not included in the approved scope of work. Specifically, TDEM reimbursed the County more than \$148,780 in E&D costs between December 2010 and June 2012.<sup>3</sup>

TDEM officials admitted that they did not adequately review the County's BCA data or the detailed breakdown of project costs because of the project's complexity. Therefore, TDEM was not aware that the County did not include E&D costs in its revised estimate submitted to justify additional funding, which FEMA subsequently approved. As a result, TDEM's reimbursement of E&D costs constituted payment for costs outside the approved scope of work. Even after the County informed TDEM that it did not include E&D costs in the project's cost estimate, TDEM decided to reimburse the County for these costs anyway. A TDEM official said that TDEM allowed these costs because they were not a duplication of benefits. Additionally, the TDEM official said that program

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<sup>3</sup> On December 8, 2010, FEMA approved additional funding for the Comal County project based on the County's revised project cost estimate that specifically excluded E&D costs. The additional funding brought the total approved grant amount to \$16.3 million.



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guidance available at the time was not clear on this point. FEMA officials agreed that TDEM should not have reimbursed these E&D costs to the County.

### Conclusion

TDEM did not always fulfill its grantee responsibilities.

- TDEM did not demonstrate that projects were cost-effective in 8 of the 10 projects we audited.
- TDEM did not thoroughly review the BCA data that its applicants prepared. As a result, TDEM submitted two ineligible projects for HMGP funding (one City of Austin project and one Comal County project) and requested that FEMA perform BCAs on all MD Anderson projects.
- TDEM did not always ensure that subgrantees were aware of requirements imposed on them and did not always manage the day-to-day operations of subgrant activity and monitor subgrant activity to ensure compliance with applicable Federal requirements. As a result, TDEM reimbursed subgrantees for \$384,259 in ineligible project costs.

In summary, the State, as grantee, is required to demonstrate that the project is cost-effective. The grantee also has primary responsibility for project management and the accountability of funds. TDEM needs to improve its BCA review procedures and enhance its ability to monitor subgrant activity to ensure compliance with applicable Federal requirements and FEMA guidelines.

### RECOMMENDATIONS

We recommend that the Regional Administrator, FEMA Region VI:

**Recommendation 1:** Ensure that its regional States develop, document, and implement procedures for demonstrating that HMGP projects are cost-effective and will not cost more than the estimated benefits as required by 44 CFR 206.434(c)(5) (finding A).

**Recommendation 2:** Require TDEM to develop, document, and implement procedures that will ensure that it reimburses subgrantees for only eligible costs (finding B).



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### DISCUSSION WITH MANAGEMENT AND AUDIT FOLLOW-UP

We provided a draft report in advance to FEMA and TDEM officials and discussed it at an exit conference with FEMA on January 22, 2013, and with TDEM on February 5, 2013. FEMA officials agreed with the findings and recommendations and TDEM officials provided no comment to the findings and recommendations.

Within 90 days of the date of this memorandum, please provide our office with a written response that includes your (1) agreement or disagreement, (2) corrective action plan, and (3) target completion date for the recommendations. Also, please include responsible parties and any other supporting documentation necessary to inform us about the current status of the recommendations. Until we receive and evaluate your response, we will consider the recommendations open and unresolved.

Consistent with our responsibility under the *Inspector General Act*, we will provide copies of our report to appropriate congressional committees with oversight and appropriation responsibility over the Department of Homeland Security. We will post the report on our website for public dissemination.

Major contributors to this report are Tonda Hadley, Director; Moises Dugan, Audit Manager; and Lori Smith, Auditor-in-Charge.

Please call me with any questions at (202) 254-4100, or your staff may contact Tonda Hadley, Director, Central Regional Office, at (214) 436-5200.



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