

# DEPARTMENT OF HOMELAND SECURITY

Office of Inspector General  
Denton Field Office - Audit Division  
3900 Karina Street, Room 224  
Denton, Texas 76208

April 29, 2003

## MEMORANDUM

TO: David I. Maurstad, Regional Director  
FEMA, Region VIII

FROM: Tonda L. Hadley  
Field Office Director

SUBJECT: City of Valley City, North Dakota  
FEMA Disaster Number 1279-DR-ND  
Public Assistance Identification Number 003-81180-00  
Audit Report Number DD-05-03

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The Office of Inspector General audited the eligibility of public assistance funds awarded to the City of Valley City, North Dakota (City). The objective of the audit was to determine whether the projects applied for by the City were eligible under the Public Assistance Grant Program.

The City received an award of \$1.51 million from the North Dakota Division of Emergency Management (NDDEM), a FEMA grantee, for damages caused by high precipitation events during the disaster period March 1, through July 19, 1999. The award provided 90 percent FEMA funding for four large projects and seven small projects.<sup>1</sup> We audited the eligibility of three large projects (Projects 2144, 2243, and 2244) valued at \$1,477,063, making up 98 percent of the estimated grant award. The audit covered the period November 1999 through February 2003, during which FEMA obligated \$1,509,981 for direct costs to repair public facilities in the City.

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<sup>1</sup> FEMA regulations in effect at the time of the disaster defined a large project as a project costing \$47,800 or more and a small project as one costing less than \$47,800.

The OIG performed the audit under the authority of the Inspector General Act of 1978, as amended, and according to generally accepted government auditing standards. The audit included interviews with FEMA Region VIII staff, NDDEM staff, City employees, and Kadrmass, Lee & Jackson Consulting Engineers (KL&J) employees. The audit also included reviewing engineering reports, federal, state, and local government project and correspondence files, and performing other auditing procedures considered necessary under the circumstances.

## **RESULTS OF AUDIT**

Projects 2243 and 2244 were not eligible for funding under FEMA's Public Assistance Program because the work was not required as a result of the major disaster. Disaster 1279 did not cause the damages to the City's sanitary sewer collection lines (\$634,632 under project 2243); and the relocation and capacity increase of the City's sanitary sewer force main exceeded pre-disaster design and capacity (\$723,169 under project 2244). The OIG, therefore, questioned \$1,357,801 in funding that FEMA approved for Projects 2243 and 2244.

The City also claimed \$119,262 under Project 2144 to repair damages to its sanitary sewer collection lines in the Victory Park section of the City. Although 1998 videotapes proved that sewer lines in the Victory Park area were badly damaged before Disaster 1279 occurred in 1999, FEMA found some evidence that Disaster 1279 may have caused additional damage in this area. Therefore, the OIG did not question the costs claimed under this project.

## **BACKGROUND**

The City had a history of sewer problems before the disaster. In September 1996, the North Dakota State Department of Health (NDS DH) issued a Notice of Violation to the City for bypassing raw sewage from its master lift station directly to the Sheyenne River. The NDS DH also assessed a \$135,000 penalty against the City for the violation. The raw sewage should have passed through the master lift station and force main to sanitation treatment lagoons before emptying into the river. However, periods of heavy rain overloaded the sewer system and caused raw sewage to bypass the master lift station and sanitation treatment lagoons.

The City responded to the Notice of Violation by negotiating a consent agreement in January 1997 with the NDS DH to suspend the civil penalty. In partial fulfillment of that consent agreement, the City, in December 1997, advised the Environmental Protection Agency (EPA) that it was in the planning stages of developing a project to replace, repair and reline leaking sewer mains to address sewer infiltration problems. In December 1998, after completing the planning stage, the City submitted an application for a FEMA Hazard Mitigation Grant to expand the capacity of its sewer system by adding a second force main and two new lagoons and relining existing sewer mains.

While awaiting a decision on the City's application for the Hazard Mitigation Grant, Disaster 1279 occurred, and the City submitted requests for FEMA Public Assistance Grants to relocate the force main and increase its diameter from 12 to 16 inches (project 2244) and reline existing sewer mains (Projects 2144 and 2243).

FEMA was simultaneously assessing the eligibility of the City's proposals for the Hazard Mitigation and Public Assistance Grants. FEMA awarded a Public Assistance Grant on November 9, 1999, to fund project 2144. The NDDEM notified Valley City in December 1999 that its 1998 application for a Hazard Mitigation Grant was disapproved but the force main portion (project 2244) would be considered for a Public Assistance Grant. In February 2000, Region VIII determined that projects 2243 and 2244 were not eligible under the Public Assistance Grant Program.

On October 9, 2000, the City wrote Senators Kent Conrad and Byron Dorgan, and Congressman Earl Pomeroy, informing them of the City's struggle, due to limited resources, to rehabilitate its sewage system to comply with a consent agreement with the EPA and the NDSDH. It also identified the size of the force main as a limiting factor to increasing the capacity of the sanitary sewer system. The letter requested assistance in securing funding for the force main relocation and sewer reline projects. In response, Congressman Earl Pomeroy, a native of Valley City, wrote a January 18, 2001, letter to former FEMA Director James Lee Witt urging him to ensure the projects move forward. On January 19, 2001, Director Witt directed FEMA Region VIII's management to change the eligibility determination for projects 2243 and 2244 and to authorize funding. FEMA obligated funding for those two projects on February 21, and March 9, 2001, respectively.

## **CRITERIA**

To be eligible under FEMA Public Assistance Grants, 44 CFR 206.223 stipulates that an item of work must be required as the result of the major disaster event, be located within a designated disaster area, and be the legal responsibility of an eligible applicant. In addition to disaster damage, loss of functionality can also result in an applicant being eligible for Public Assistance Grants. In November 1997, FEMA's Response and Recovery Directorate issued a policy statement on inundation and ground saturation problems in North Dakota and South Dakota as follows:

While it is more difficult to apply our current rules and regulations to unusual events, we do not believe that changes to them are required. Instead, we are providing the following policy clarification.

The Stafford Act is intended for single, specific events. As a result, incident periods must be specific and may not remain open for an inordinate period of time. While North Dakota and South Dakota may have been impacted by an unusual series of events over the past 5 years,

we do not have the authority to keep an incident period open year after year.

Both the Stafford Act and Title 44 of the Code of Federal Regulations (CFR) require that a facility be damaged by a declared event in order to qualify for assistance to restore its function. In most events, damage is immediately evident and restorative work can be identified and accomplished, thereby restoring the facility's function in a timely manner. While facilities that are inundated or affected by excessive ground saturation may not be damaged, per se, they can be determined to be eligible for Stafford Act assistance if they lose their ability to function as they did before the declared disaster. As a result, we have concluded that a partial or complete loss of functionality may be considered damage under the Stafford Act and 44 CFR if the loss of functionality occurred during the incident period.

Some officials believed this inundation policy might be a basis for eligibility of some projects. Therefore, the OIG considered the above policy statement in its assessment of whether projects were eligible for Public Assistance Grants.

### **PROJECTS 2144 AND 2243**

Projects 2144 and 2243 were to repair 11,717 linear feet of sanitary sewer collection lines and associated manholes and to install 190 linear feet of new sanitary sewer line, for a total cost of \$753,894. The City requested that FEMA fund these projects to reduce infiltration and inflow (I&I) to its sewage collection system and repair pipes allegedly damaged by the disaster. Infiltration is water, other than wastewater, that enters a sewer system from the ground through such means as defective pipes, pipe joints, connections or manholes. Inflow is water, other than wastewater, that enters a sewer system from sources such as yard drains, roof leaders, drains from springs and swampy areas, cross connections between storm and sanitary sewers, catch basins, and river water.

The OIG reviewed the applications, project status, and engineering reports developed by the City's engineering consultants Kadrmas, Lee & Jackson (KL&J), and interviewed FEMA and KL&J engineers to determine whether the work was necessary as a result of the 1999 disaster or eligible under the inundation and ground saturation policy.

The City experienced significant infiltration and inflow problems before the 1999 disaster and the problems were not the result of the disaster. A 1997 KL&J Infiltration and Inflow Study recommended a sewer rehabilitation program to reduce inflow and infiltration. KL&J reported that the clay pipe sewer mains and services, as well as the brick and block manholes, built before the turn of the century, were particularly susceptible to the infiltration of ground water because of numerous joints and cracks. The report went on to say, "it was noted during the 1980's that excessive I & I was present during and following peak events and the potential for problems existed. . . . The serious nature of the I & I problem in Valley City was

not fully known until the onset of this wet cycle in 1993.” A January 1999 preliminary engineering report stated much the same, indicating that I & I affected 80 percent of the collection system and “infiltration to the system is widespread” because of the age of the system.

The OIG found no evidence that the City experienced a loss of function due to the disaster, as defined by FEMA’s inundation and ground saturation policy, and the City did not document a loss of function.

Finally, the City’s application included videotapes that allegedly showed damage caused by the 1999 disaster. However, KL&J filmed and documented this damage in 1998, before the March 1999 disaster. KL&J provided these videotape results in a status report to the City in January 1999. The pre-disaster report disclosed that the sewer lines to be repaired under Projects 2141 and 2243 contained broken pipes, cracks and leaks, pipes with cracked joints and mineral deposits, and exposed ground. The report also disclosed that the 1998 video inspection of portions of the system showed “widespread damages and deficiencies in the pipelines.”

Based on this evidence, the OIG concluded that damage to the City’s sanitary sewer collection lines occurred before the 1999 disaster. The 1997 KL&J I&I engineering study identified excessive inundation and inflow as a problem recognized in the 1980s. In November 2000, FEMA Region VIII engineers appropriately determined that project 2243 was not eligible for Public Assistance Program funding. Therefore, the OIG questioned the \$634,632 claimed for Project 2243.

FEMA found some evidence that Disaster 1279 may have caused some additional damage to the sewer lines in the Victory Park section of the City (Project 2144). Therefore, the OIG did not question the \$119,262 claimed under Project 2144.

## **PROJECT 2244**

Project 2244 was for \$723,169 to construct a larger, 16-inch diameter force main in a new location. The 1999 disaster caused ground movement that disrupted the City’s force main, and FEMA funded the repairs necessary to keep the force main functioning. However, after making these repairs, the City requested funding to relocate and upgrade its force main because 1998 and 1999 KL&J engineering studies concluded that the 12-inch force main restricted the volume of raw sewage that could be delivered to the lagoons and relocation was necessary to address stabilization and capacity issues.

FEMA’s Region VIII engineering group reviewed the Project 2244 proposal and denied it on September 15, 2000. The reviewing engineer concluded from his review of KL&J’s May 10, 2000, Preliminary Engineering Report that the City’s sewer system did not lose its ability to function during the 1999 disaster period. The City restored functionality of its sewer system within 9 hours of the ground movement through FEMA-funded Project 1060. Region VIII denied the Project 2244 application because it had not identified loss of function as

required by the inundation and ground saturation policy. Region VIII's engineers and management determined that the relocation of the force main from a pre-existing unstable site and upsizing to a 16-inch diameter pipe was beyond the intent of public assistance under the Stafford Act.

The OIG determined that Project 2244 was not eligible under the Public Assistance Grant Program because the work was not required because of the 1999 disaster. In addition, the inundation and ground saturation policy was not intended to address mitigation of future damages or increasing operational effectiveness of a facility. Therefore, the OIG questioned \$723,169 for Project 2244.

### **CONCLUSION**

The OIG concurred with FEMA Region VIII's original determination of ineligibility for Projects 2243 and 2244, and took exception to the re-classification of these projects as eligible. Accordingly, the OIG questioned \$1,357,801 claimed for Projects 2243 and 2244.

### **RECOMMENDATION**

The OIG recommended the Regional Director, in coordination with the North Dakota Division of Emergency Management, deobligate \$1,357,801 in funding and recover those funds already disbursed under Projects 2243 and 2244.

### **DISCUSSION WITH MANAGEMENT AND AUDIT FOLLOW-UP**

The OIG discussed the results of the audit with FEMA Region VIII on April 3, 2003, and with the North Dakota Division of Emergency Management and Valley City on April 23, 2003. City officials disagreed with our findings, stating that they would withhold comment and respond when they filed an appeal.

Pursuant to FEMA Instruction 1270.1, please advise this office by June 30, 2003, of the actions taken or planned to implement the audit recommendation. If you have any questions concerning this report, please call me at (940) 891-8900. The major contributor to this report was Stuart Weibel.