United States General Accounting Office 135213

GAO

Report to Congressional Requesters

February 1988

DISASTER ASSISTANCE

Response to West Virginia's November 1985 Flood Shows Need for Improvements

GAO/RCED-88-5

GAO
United States
General Accounting Office
Washington, D.C. 20548

Resources, Community, and
Economic Development Division

B-226883

February 4, 1988

The Honorable Harley O. Staggers, Jr.
The Honorable Nick J. Rahall II
The Honorable Robert E. Wise, Jr.
The Honorable Alan B. Mollohan
House of Representatives

As requested, this report addresses four key areas concerning the November 1985 West Virginia flood. The report discusses (1) the extent of state and local disaster planning and preparedness, (2) the effectiveness of existing warning systems and planned improvements, (3) the federal government's responsiveness to the victims' needs, and (4) the types and dollar amounts of assistance provided to the flood victims.

As arranged with your offices, unless you publicly announce its contents earlier, we plan no further distribution of this report until 30 days from its issue date. At that time we will send copies of the report to the Director, Office of Management and Budget; the Secretary, Department of Commerce; the Secretary, Department of the Army; the Director, Federal Emergency Management Agency; the Administrator, Small Business Administration; the Governor, State of West Virginia; and other interested parties. We will also make copies available to others upon request.

This report was prepared under the direction of John H. Luke, Associate Director. Major contributors to this report are listed in appendix V.

J. Dexter Peach

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Executive Summary

Purpose

In November 1985, record flooding in West Virginia killed 47 people; damaged or destroyed about 9,000 homes; extensively damaged forest, farm, and park lands; and destroyed businesses and public facilities. The federal government declared 29 counties a major disaster area.

In response to a request by the four U.S. Representatives of West Virginia, this report provides information on issues related to the flood, including (1) the extent of local disaster planning and preparedness, (2) the effectiveness of existing warning systems and plans to improve them, and (3) the federal government's responsiveness to victims' needs.

Background

Federal law establishes federal responsibilities for reconstructing disaster areas. Primary responsibility for disaster activities lies with the Federal Emergency Management Agency (FEMA). FEMA works with state and local organizations responsible for emergency management and issues criteria for emergency plans that they must develop. West Virginia also requires each political subdivision to establish a local emergency services organization and to appoint an emergency services director.

Following the 1985 flood, the federal government provided public and individual assistance to West Virginia's flood victims. Public assistance, given to state and local governments, included debris removal and repair or replacement of such items as streets and bridges. Individual assistance primarily consisted of loans, grants, and temporary housing.

The estimated federal costs at the time of GAO's review were $171 million for public assistance, $90 million for assistance to individuals and businesses, and $24 million for flood damage claim payments from FEMA's Federal Insurance Administration.

Results in Brief

Many West Virginia counties' disaster plans did not meet FEMA's emergency preparedness criteria. A major reason was a shortage of staff and funds in many counties for emergency planning.

Warning systems did not always advise residents of impending emergencies in time to allow them to take adequate safety precautions. Subsequent to the 1985 flood, the National Weather Service has funded a system to improve flood predictions for the designated disaster counties, but counties may lack the funds to maintain the system.

Federal agencies took an average of about 6 weeks to complete the application process for the initial public assistance applications; much of this time was spent in processing approvals after inspections and reviews were completed. Amounts FEMA approved on some applications were understated and thus required further time-consuming supplemental assistance requests. The state took an average of about 4 weeks to make payments after the applicants for federal public assistance requested payment.

Hundreds of applicants for individual assistance also initially received less than they were entitled to receive and had to obtain approval of supplemental assistance. FEMA also spent funds on mobile home facilities that were never used.

Principal Findings

Disaster Planning

Since 1982, no more than 23 of West Virginia's 55 counties have participated in FEMA's program to improve local emergency operations. Many do not participate because counties must match the funds that FEMA provides for disaster planning. Further, state officials told GAO that some counties that are currently participating may withdraw because of the program's paperwork demands on part-time and volunteer local staff.

Although FEMA guidance states that local emergency plans should be updated at least once every 3 years, about one-half of the state's 56 jurisdictions (55 counties and 1 city) had emergency plans that were dated before 1975. The state compared the 29 disaster counties' plans with FEMA's latest emergency preparedness criteria and rated 20 as poor or very poor.

Warning Systems

The primary county warning systems consist of fire and civil defense sirens; fire, police, and ambulance loudspeakers; and radio and television weather warnings. Some flood victims told GAO that they received no warning, while others said that they heard a siren warning but did not recognize it as a flood warning.

A National Weather Service computer-assisted rain gauge and warning system developed to improve county flood prediction may not be effective, according to a state official, because some counties may not be able to maintain it.

Public Assistance

Federal agencies took an average of 6 weeks to complete the application process for the initial public assistance applications. After damage inspections and application reviews were completed, FEMA took an average of 17 days to approve each initial application and 19 days to approve the early supplemental applications. These approval time frames were too long, according to FEMA. Approved amounts for some public applicants were significantly underestimated, thus requiring supplemental applications that slowed recovery efforts. The state, which administered the payments, averaged 26 days to make payments to recipients, 11 days of which were attributable to the state's requirement to route each request and payment through the Governor's Office in an effort to expedite processing.

Individual Assistance

As a result of complaints about insufficient FEMA payments for residential damages that FEMA's contractors had inspected, FEMA asked 2,166 individuals about the adequacy of payments. It then issued about $700,000 in supplemental payments to 869 victims without reinspecting the damages. FEMA has since acknowledged that the payments should not have been made without a physical property reinspection.

At FEMA's direction, the state built 647 group-site mobile home pads (foundations) at a cost to FEMA of about $6 million, but only about one-half of the pads were used. In November 1985, FEMA had no criteria for estimating the number of pads to be built in such an emergency; it also could not document how it determined this number. FEMA has since issued revised guidelines to help minimize the number of pads to be built and to require full documentation of all group-site construction activities.

Recommendations

GAO recommends that the Director of FEMA

- determine, in conjunction with the states, whether regional emergency operations planning is feasible and more cost-effective than the current method of having each county develop its own plan and

- pursue development of standards for how long the public assistance application process should take.

GAO also recommends that the Secretary of Commerce direct the Assistant Administrator for Weather Services to develop alternative actions, such as cost sharing, to maintain the integrated flood observing and warning system if counties are unable to fund the needed maintenance.

Agency Comments

GAO provided copies of its draft report to FEMA, the Small Business Administration, the Department of the Army's Corps of Engineers, the Department of Commerce's National Weather Service, and the Office of the Governor of the State of West Virginia for review and comment. FEMA generally agreed with GAO's analysis of disaster planning and disaster warning systems while emphasizing the fact that state and local governments have the primary responsibility for developing their capabilities for peacetime emergencies. Regarding the discussion of public assistance, FEMA suggested that the report acknowledge that FEMA's need to respond to 15 disasters during September through November 1985 contributed to the problems in administering West Virginia's program. GAO has added language to the report acknowledging FEMA's workload during this period. Concerning the discussion of individual assistance, FEMA said that its mobile home operations do not usually experience problems of the magnitude GAO found in West Virginia. GAO acknowledges the difficulties FEMA faced in this particular flood, and believes that FEMA's revised guidelines should help to avoid similar problems in the future. FEMA's comments are provided, along with GAO's responses, in appendix I.

The Corps of Engineers and the National Weather Service, whose comments are in appendixes II and III, and the Small Business Administration, which provided oral comments, generally agreed with GAO's draft report.

The West Virginia Governor's Office took issue with several aspects of GAO's report. Among the major points raised was that the report did not adequately acknowledge the unprecedented magnitude of the disaster—total expenditures were reportedly more that 10 times that of previous West Virginia disasters. This called for extraordinary efforts to process public assistance payments and still maintain proper oversight of expenditures. GAO acknowledges the extraordinary nature of the November 1985 flood and has added language to highlight that fact. Other points raised by the Governor's Office, including questions on selection of payment cases GAO reviewed and statements GAO attributed to state officials and GAO's responses, are in appendix IV.

Contents

Figures

Abbreviations

DSR	damage survey report
EMA	Emergency Management Assistance program
FEMA	Federal Emergency Management Agency
GAO	General Accounting Office
IFLOWS	integrated flood observing and warning system
NWS	National Weather Service
RCED	Resources, Community, and Economic Development Division (GAO)
SBA	Small Business Administration
WVOES	West Virginia Office of Emergency Services

Introduction

In the first days of November 1985, moderate rainfall saturated West Virginia. On November 4, a strong low-pressure system dropped between 4 and 14 inches of rain in 24 hours over eastern West Virginia. Combined with the saturated ground, this rainfall caused flash flooding, primarily in central and eastern West Virginia. Runoff accumulated quickly in valleys and floodplains, establishing records for river depths and flows. The flooding caused loss of life and widespread damage: 47 people died; about 9,000 homes were damaged or destroyed; and forest, farm, and park lands, as well as mills, factories, other businesses, and public facilities experienced extensive damage or were destroyed. The federal government responded to the disaster with many types of assistance, totalling about $285 million.

At the request of the West Virginia congressional delegation in the U.S. House of Representatives, we reviewed the status of disaster planning in West Virginia and the extent of federal assistance provided to flood victims.

Background

Federal law establishes federal responsibilities for reconstructing and rehabilitating disaster areas. While the law provides for various types of disaster assistance from several federal agencies, primary responsibility for disaster activities lies with the Federal Emergency Management Agency (FEMA).

How the Federal Disaster Declaration Process Works

The Disaster Relief Act of 1974 and Executive Order 12148, which implements that act, establish the procedures for declaring a federal disaster. The President is responsible for declaring a major disaster. FEMA plays a key role in advising the President prior to the declaration and in coordinating subsequent federal assistance in a disaster area. FEMA's Associate Director of State and Local Programs and Support and FEMA's 10 regional directors handle the coordinating activities.

FEMA's disaster response and recovery program guidance states that when a disaster threatens or occurs, local authorities are responsible for taking immediate steps to warn and evacuate citizens, alleviate suffering, and protect life and property. If additional help is needed, the governor should use the state police, National Guard, and other state resources.

When the need exceeds state and local capabilities, the governor can ask the President, through the FEMA regional director, to declare a major disaster. FEMA then investigates the situation, prepares a report, and sends the governor's request, along with its recommendation regarding a declaration, to the President. If the President declares a disaster, FEMA designates the areas eligible for assistance and enters into an agreement with the state outlining the conditions that must be met before FEMA can provide assistance.

Federal regulations indicate that the intent of federal disaster assistance is to supplement victims' efforts to meet essential and necessary needs only, not to replace nonessential, luxury, or decorative items. Victims are expected to make minor repairs on their own. FEMA and other federal disaster assistance programs are not intended to restore victims' assets to predisaster conditions or to replace all losses.

Federal Disaster Assistance Following the 1985 Flood

Federal assistance provided to West Virginia's flood victims included public and individual assistance. Public assistance, given by several federal agencies to state and local governments and some private, nonprofit activities, included debris removal; repair or replacement of roads, streets, sewer and water lines, and public buildings; and other similar services. Assistance to individuals consisted of loans, temporary housing, grants, unemployment payments, and crisis counseling. As a result of the West Virginia flooding, FEMA's Federal Insurance Administration also made flood insurance payments to victims for covered losses.

FEMA's Response

FEMA responded promptly to the request for a disaster declaration in West Virginia and began disaster recovery operations quickly. Table 1.1 depicts the stages in the declaration process, from the Governor's declaration request to the signing of the FEMA/state agreement.

Table 1.1: West Virginia Flood Disaster Declaration Process

Date	Event
Nov. 6, 1985	Governor's declaration request to FEMA
Nov. 7, 1985	FEMA's recommendation to the President
Nov. 7, 1985	President's declaration
Nov. 14, 1985	FEMA/state agreement signed

The FEMA/state agreement, as amended, designated 29 of West Virginia's 55 counties as eligible for individual assistance and public assistance.

Figure 1.1 illustrates the resulting designated disaster area and key locations where we conducted our work.

On November 7, 1985, FEMA named a federal coordinating officer. This officer is typically responsible for (1) making an initial appraisal of the priority of assistance, (2) establishing a disaster field office and disaster application centers, (3) coordinating the relief activities of federal agencies, state and local governments, and volunteer agencies, and (4) ensuring appropriate action from all federal agencies.

FEMA opened its first 10 disaster application centers on November 13. An application center provides victims with a single location for making contact with federal, state, local, and private agency representatives offering relief to households and businesses. FEMA opened a disaster field office, the primary operational and coordinating base, in Clarksburg, West Virginia, on November 14. By December 6, FEMA had operated application centers in 23 locations in 20 counties.

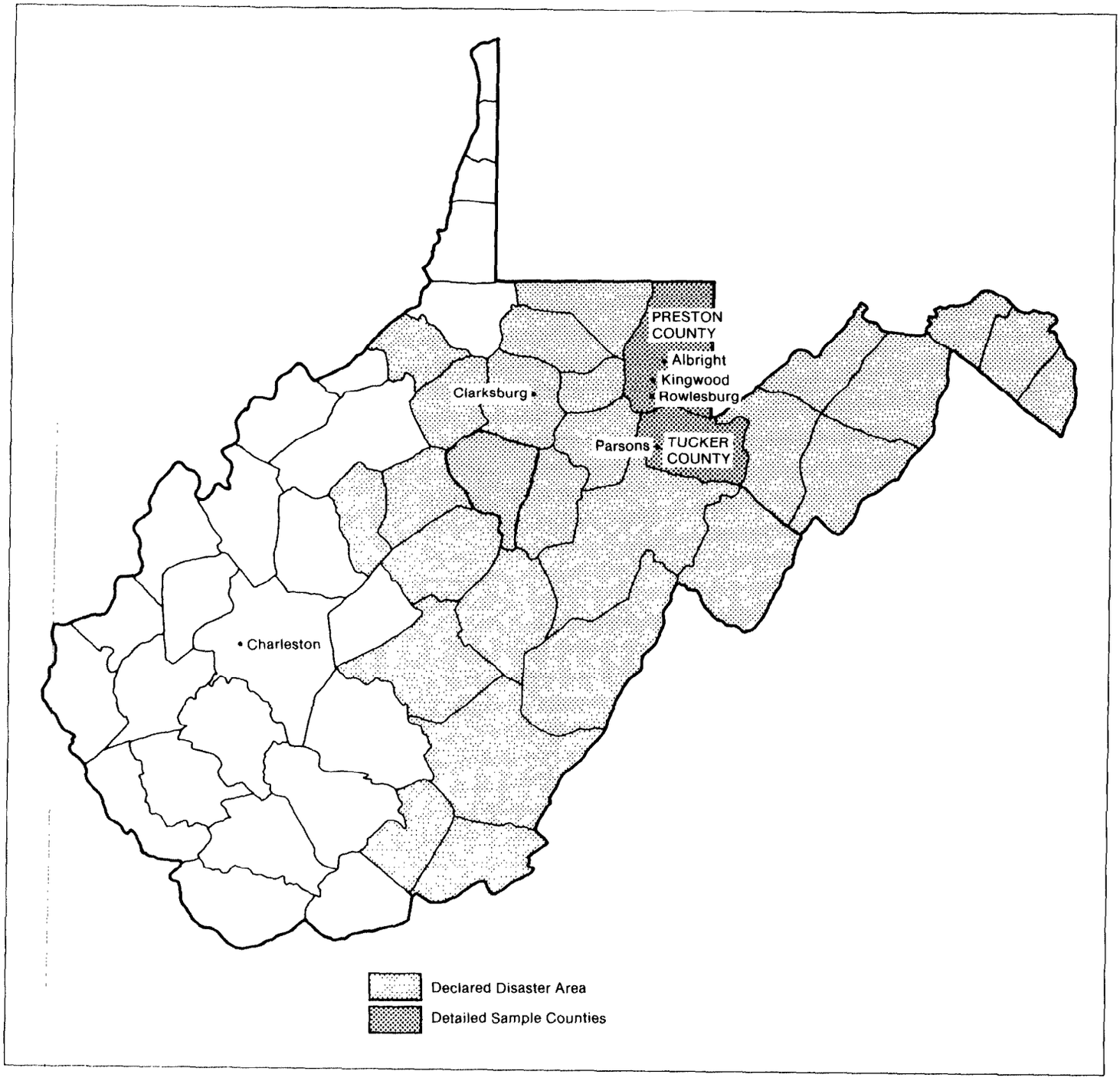
At an application center, receptionists greet the victims and schedule appointments for return visits as needed. Registrars then interview victims and prepare registration forms. On the basis of information provided by the victims, the registrar indicates which information stations they should visit. The stations are staffed by representatives of federal, state, and local government programs and volunteer and charitable organizations that explain the assistance available, the eligibility requirements, and the application process. After the victims visit these stations, they meet with an exit interviewer who reviews their paperwork and discusses the steps needed to complete applications for assistance. The interviewer will help answer victims' questions and advise them of toll-free telephone lines they can use to get information after leaving the center.

In West Virginia, FEMA had three types of employees at the disaster field office and application centers:

- FEMA sent 33 full-time employees from its headquarters and 9 of its 10 regional offices.[1] They were assigned to key positions, such as federal coordinating officer, deputy federal coordinating officer, disaster recovery manager, and public assistance officer.

[1]Normally, FEMA's Region III office in Philadelphia responds to disasters in West Virginia, but its staff was responding to floods in Pennsylvania and Virginia.

Figure 1.1: West Virginia Disaster Area



- FEMA assigned 213 disaster assistance employees as clerks, typists, registrars, and managers in the field office and application centers. FEMA selected these temporary employees, called "reservists," from regional rosters of experienced personnel to supplement its staff during the initial heavy workload of the disaster.
- FEMA also hired 77 part-time disaster assistance employees locally to work as clerks, typists, and registrars.

Other Agencies' Responses

In addition to FEMA, several other federal agencies were responsible for providing assistance to West Virginia in response to the November 1985 flood. Most prominently, the Small Business Administration (SBA) was responsible for providing low-interest loans for homes and businesses of disaster victims. The Federal Highway Administration provided funds for repair or reconstruction of damaged elements (such as roads and bridges) of the federally aided highway system. The Soil Conservation Service, together with the Corps of Engineers, assisted with debris removal and stream restoration. The Department of Education provided grants to finance replacement or restoration of urgently needed school facilities that had been flooded. Tables 1.2 and 1.3 show the other federal agencies that also provided various types of public and individual assistance.

Disaster Program Costs

The estimated costs of federal assistance shown in tables 1.2 and 1.3 reflect data available at the time of our review and not final costs. Costs will continue to be incurred and accumulated for at least 3 more years, according to a FEMA headquarters official.

As tables 1.2 and 1.3 illustrate, the estimated costs for federal assistance provided in West Virginia were approximately $171 million and $114 million for public assistance and individual assistance, respectively.

Table 1.2: Estimated Cost of Public Disaster Assistance Provided in West Virginia by Federal Agencies

Dollars in millions

Agency	Assistance	Amount
FEMA	Streets, sewers, treatment plants, etc.	$72.9
Federal Highway Administration	Roads and bridges	53.5
Soil Conservation Service	Debris removal and stream restoration	32.4
Department of Education	School buildings and supplies	9.3
U.S. Army Corps of Engineers	Debris removal and stream restoration	2.8
Office of Human Development Services	Grant to West Virginia Commission on Aging	.1
Economic Development Administration	Grant to prepare federal paperwork to obtain disaster relief	.1
Total		**$171.1**

Table 1.3: Estimated Cost of Individual Disaster Assistance Provided in West Virginia by Federal Agencies

Dollars in millions

Agency	Assistance	Amount
Small Business Administration	Home and business disaster loans	$55.3
FEMA's individual assistance programs	Temporary housing, grants, unemployment payments, and counseling	26.9
Agricultural Stabilization and Conservation Service	Farm repair and livestock feed	3.1
Department of Labor	Assist dislocated workers to find employment	2.0
Family Support Administration	Aid to families with dependent children	1.6
Food and Nutrition Service	Food stamps and surplus food	.5
Farmers Home Administration	Disaster loans	.5
Office of Community Services	Low cost home construction, food pantry, and gardens	.5
Total		**90.4**
FEMA's Federal Insurance Administration	Flood insurance payments to individuals and businesses	24.0
Total		**$114.4**

In addition, the federal agencies estimated their cost of administering these flood assistance programs at about $7.7 million. This includes $2.5 million for FEMA and $5.2 million for other federal agencies.

Federal agencies estimated they lost $5.2 million in equipment and facilities that, while not a disaster program cost, was a result of the flood. The U.S. Forest Service estimated $3.9 million in damages to its buildings, bridges, and roads. The National Park Service also incurred losses

of about $700,000. Other federal agencies such as the Internal Revenue Service and the U.S. Postal Service also incurred administrative costs or losses.

Objectives, Scope, and Methodology

We did this review in response to a request from West Virginia Representatives Alan B. Mollohan, Nick J. Rahall II, Harley O. Staggers, Jr., and Robert E. Wise, Jr., who requested information on numerous disaster-related issues. We did some preliminary work and briefed Representative Staggers, who acted as spokesman for the requesters, and his staff.

After discussing these issues with the requesters' designated spokesman, we agreed to focus our review on four key areas: (1) the extent of state and local disaster planning and preparedness, (2) the effectiveness of existing warning systems and planned improvements, (3) the federal government's responsiveness to the victims' needs, and (4) the types and dollar amounts of assistance provided to the flood victims. We also agreed to limit our detailed work to two of the hardest hit counties—Preston and Tucker—and to focus on collecting information on a broad basis, identifying problem areas and suggesting what might be done to improve federal assistance in future disasters.

To accomplish these objectives, we did our review at FEMA headquarters, Washington, D.C.; FEMA Region III office, Philadelphia; FEMA Disaster Field Office, Clarksburg, West Virginia; various West Virginia state offices in Charleston; the Soil Conservation Service, Morgantown; the National Weather Service (NWS), Charleston; and the U.S. Army Corps of Engineers, Huntington. We also did work at SBA headquarters in Washington, D.C., and Area 2 Disaster Assistance Office in Atlanta.

In determining the extent of disaster planning and preparedness, we relied heavily on FEMA and state evaluations of state and county emergency preparedness plans performed after the flood. Although we did not assess the adequacy of these evaluations, we discussed them with FEMA and state officials. We determined the age of the plans and the types and amounts of funds FEMA provided to update and improve them.

To determine the effectiveness of the disaster warning systems at the time of the flood and planned improvements in the systems, we interviewed officials from (1) the Corps, which maintains water depth equipment, (2) NWS, which issues weather bulletins, watches, and warnings,

(3) the West Virginia Office of Emergency Services (WVOES), which disseminates weather information to county warning points, and (4) FEMA, which is involved in improving the existing systems. We also interviewed a limited number of victims in Preston and Tucker Counties to obtain their reactions to the warnings provided when the disaster occurred, and we incorporated information from another review in which we interviewed about 100 residents of the town of Albright to obtain their observations on the effectiveness of the warnings.

To determine the federal government's responsiveness to the victims' needs, we interviewed FEMA, Corps, and Soil Conservation Service personnel and assistance recipients and reviewed small samples of various types of assistance provided by FEMA. These samples, taken primarily from applicants in Preston and Tucker counties, are not statistically valid, but do indicate the problems victims faced in obtaining federal assistance. We also interviewed Soil Conservation Service and Corps officials and reviewed relevant contract data from these agencies.

We made two exceptions to this approach. First, because of various concerns expressed in the media and by Representative Staggers and his staff about the SBA disaster loan program, we analyzed a statistically valid sample of SBA disaster loan applications (220 of 2,810) and other SBA data to determine how quickly victims received SBA loans. Second, for flood insurance payments, we obtained information on all flood claims processed by the Federal Insurance Administration's Bridgeport, West Virginia, field office to determine how quickly the claims were paid.

To determine the types and dollar amounts of assistance provided to the flood victims, we reviewed various reports produced by FEMA and other federal agencies and interviewed their officials. We did not verify the cost data nor perform reliability assessments of the systems which produced the data.

We performed this review from January through November 1986 in accordance with generally accepted government auditing standards, except as noted above.

Disaster Planning and Disaster Warning Systems Need Improvement

Several problems contributed to the inadequacy of emergency planning in West Virginia. Less than one-half of West Virginia's counties participated in the FEMA Emergency Management Assistance (EMA) program operated under the civil defense program. Although the EMA program provides funds to improve local emergency operations, recent FEMA program changes may cause some counties to withdraw from the program, according to state officials. Furthermore, many local disaster plans had not been updated and did not meet FEMA's most recent criteria for plans. Finally, certain local jurisdictions were not successfully encouraged to participate in the EMA program and others were not successfully encouraged to update their emergency operations plans.

During the 1985 flood, warning systems did not always provide local residents time to take appropriate action. FEMA and NWS, however, plan to improve the warning systems, thereby alleviating current shortcomings if potential maintenance problems can be resolved.

West Virginia's Participation in FEMA Disaster Planning Programs

Executive Order 12148 makes the FEMA Director responsible for working with state and local governments to stimulate participation in emergency preparedness, mitigation, response, and recovery programs. To meet this responsibility, FEMA established objectives to

- foster a nationwide, systematic approach to state and local emergency management planning;
- develop plans supporting prompt, coordinated responses to large-scale disasters; and
- improve the usefulness of emergency plans.

To achieve these objectives, FEMA works with the state and local organizations responsible for emergency management and issues criteria for emergency plans (such as requirements for coordination among governmental units, logistical support, evacuation procedures, and dissemination of emergency public information) that organizations must develop in order to receive certain FEMA funds. FEMA and the state also enter into an annual Comprehensive Cooperative Agreement; this provides the state with a single mechanism to use when applying for FEMA financial assistance and identifies how the state should organize and report on emergency management objectives and accomplishments.

Although West Virginia participated in 12 FEMA programs in recent years, it received most of its FEMA funding from the EMA program. This program provides funds to state and local governments to increase their

emergency management operational capability. During fiscal years 1984 through 1986, FEMA authorized about $1.46 million for the EMA program in West Virginia and $1.32 million for the other 11 programs in which the state participated. For fiscal year 1987, the state requested about $567,000 for the EMA program and $322,000 for other FEMA programs. EMA funds may be used for up to one-half of eligible expenses, such as emergency management personnel, travel, office supplies, rent, utilities, and insurance.

Local Participation in FEMA's EMA Program Is Limited

According to West Virginia state law, each political subdivision must establish a local organization for emergency services and appoint an emergency services director. Even if this occurs, however, West Virginia's subdivisions are not eligible for FEMA's EMA funds unless they have a current state-approved emergency operations plan, according to FEMA guidance, and provide the funds to match fully the FEMA funding.

Relatively few of the counties participate in the EMA program. Of the 55 counties in West Virginia, between 16 and 23 participated each year in the EMA program during fiscal years 1982 to 1986. One city also participated each of these years. For fiscal year 1987, WVOES requested funds for 21 counties and 1 city.

Matching Funds and Paperwork Limit Participation

This low level of EMA program participation occurs primarily because local jurisdictions do not have the required matching funds, according to WVOES officials. They also said that local officials believe that FEMA requires too much paperwork, making federal funds not worth the time and trouble.

An example of this situation occurred when, in fiscal year 1984, FEMA developed the Hazard Identification Capability Assessment and Multi-year Development Plan system to establish a nationwide database for determining the status of state and local emergency preparedness and the impact of FEMA funds on state and local emergency management operations. To collect these data, FEMA began in 1985 to require all local jurisdictions that were receiving EMA funding to identify their potential hazards, assess their ability to respond to emergencies, and develop a plan and cost estimates for addressing any identified deficiencies. During 1985 and 1986, the states were required to review the local responses and ensure that the data were correct.

This data analysis and collection system is very time-consuming for the local jurisdictions and may force them out of the EMA program, according to WVOES. In its fiscal year 1986 Comprehensive Cooperative Agreement submission, WVOES stated:

"There is still non-consensus among the local directors that the increasing paperwork required for EMA funding is worth the time and effort required to complete the documents . . . . The [Multiyear Development Plan's] management goals . . . are simply not shared by the locals who feel such 'guessing games' are not worth the time or trouble, especially when FEMA appears unable to provide funding . . . ."

This issue is especially important in jurisdictions that have volunteer or part-time directors, many of whom have other full-time jobs. As table 2.1 shows, only 15 of West Virginia's 56 local jurisdictions have full-time emergency service directors. Furthermore, West Virginia law is silent with regard to the payment, qualifications, and training of these directors.

Table 2.1: Type of Emergency Services Directors in 56 Local Jurisdictions (As of Jan 1986)

Type of director	Number statewide	Number in declared disaster counties
Volunteer	31	17
Full-time	15	4
Part-time	8	7
None	2	1
Total	**56**	**29**

Source: WVOES.

State and Federal Officials Note Impediments to Encouraging Full Participation

WVOES officials noted that they can do very little to encourage local jurisdictions to hire or appoint emergency services directors or to develop effective emergency operations plans. The state does not provide funds to local jurisdictions for emergency planning, and state law does not include penalties if the local jurisdictions do not prepare emergency plans or appoint a director, as was the case in two counties as of January 1986. Thus, WVOES officials do not believe that they have leverage to ensure effective local emergency planning.

Likewise, FEMA officials said that they cannot require nonparticipants to prepare or update emergency plans. Nationwide, about one-half of the 5,600 local jurisdictions representing about 18 percent of the population are not participating, according to a FEMA headquarters official. More importantly, FEMA is not encouraging more participation at this time

because it does not have the EMA funds to support emergency planning efforts in more jurisdictions. Nevertheless, FEMA officials said that, in fiscal year 1985, FEMA started to provide the state with other funds to assist all counties in updating their plans over a 5-year period.

FEMA believes that emergency management offices should be able to perform the required basic planning and management functions if they are to receive federal funding. At the same time, to help lessen the workload of participating jurisdictions, FEMA said that it is continuing to review paperwork requirements needed for the multi-year development process to ensure that duplication with other FEMA planning processes is reduced.

Local Emergency Plans Have Not Been Updated and Are Inadequate

While the development of a written plan does not guarantee that actual operations will be effective, FEMA believes that the planning process is extremely valuable because it requires responsible local officials to determine operating procedures and coordination methods. In addition, planning should involve local government representatives and private sector organizations to help implement plans more effectively during an emergency.

We found, however, that many of West Virginia's local-level emergency plans were prepared many years ago and have not been updated to reflect the current conditions within the counties or the more recent FEMA guidance for emergency preparedness. FEMA guidance states that all local plans should be updated, as necessary, at least once every 3 years. As table 2.2 shows, half of the local plans were dated prior to 1975 and, according to a WVOES official, have not been updated.

Table 2.2: Dates of Local Emergency Operations Plans (As of Jan 30, 1987)

			EMA participants[a]	
Date of plan	**Statewide**	**Disaster counties**	**Statewide**	**Disaster counties**
No plan	2	2	0	0
1957-74	25	12	4	2
1975-79	6	5	2	1
1980-84	11	5	8	4
1985	8	2	8	2
1986	4	3	3	3
Total	**56**	**29**	**25**	**12**

[a]Counties that participated in the EMA program during 1 or more fiscal years 1984 through 1986.

Besides not being updated, many of the plans are considered poor in terms of meeting FEMA's criteria. Following the flood, a WVOES official evaluated the emergency operations plans for the 29 disaster counties to determine whether they complied with FEMA's latest (October 1985) emergency preparedness criteria. As table 2.3 illustrates, 20 of the 29 plans were rated "poor" or "very poor," and 2 counties had no plans.

Table 2.3: State Assessment of Disaster Counties' Emergency Operations Plans

Overall status	Number of counties
No plan	2
Very poor	7
Poor	13
Fair	4
Good	2
Excellent	1
Total	**29**

Source: WVOES.

We correlated the 29 disaster counties' types of directors with the date of the emergency operations plans and the state's assessment of the overall status of those plans. This analysis revealed that counties with full-time directors generally had newer plans with better ratings than counties with part-time and volunteer directors. The four disaster counties with full-time directors had plans that were dated 1984 or later and had received the best ratings. The one disaster county with no director had no plan. The seven disaster counties with part-time directors had plans that were dated between 1973 and 1986 and had received fair or poor ratings. Of the 17 counties with volunteer directors, 1 had a plan dated in 1982, 15 had plans dated before 1980, and 1 had no plan. None of those counties' plans received a rating above poor.

The State Recently Updated Its Emergency Operations Plan

The West Virginia state emergency operations plan in effect at the time of the flood was dated July 25, 1979. Three minor revisions were made to it prior to the flood, and WVOES completely updated it in 1985, but, overall, the changes were minor. The governor approved the 1985 update in April 1986. A WVOES official compared the updated 1985 state plan with FEMA's more recent guidance and found it to be substantially in compliance. The state submitted the updated plan to FEMA in September 1986, and FEMA approved it during the same month. WVOES distributed about 250 copies of the new plan statewide by early March 1987.

Local Warning Systems Need to Be Improved

The NWS is the primary source of forecasts and warnings of weather and flood conditions for West Virginia. In addition to operating a system for observing, analyzing, and forecasting weather conditions, it operates weather radio stations that continually broadcast weather and river conditions (referred to as "weather service radio"). These stations can broadcast a signal that alerts anyone who has the proper receiver. NWS can also activate the emergency broadcasting system by teletype or telephone on a statewide, regional, or county level to warn the public of impending weather-related emergencies.

NWS issued numerous weather bulletins for the November 1985 disaster, beginning with a flood watch for 8 eastern West Virginia counties on November 4, 1985, at 4:30 a.m. For one county, the first flood warning came at 9:30 a.m. that same day. One hour later, NWS activated the emergency broadcasting system and issued flood warnings for three additional counties. NWS issued frequent bulletins during the remainder of November 4 and 5.

In addition to NWS' weather radio stations and emergency broadcasting system, NWS maintains weather communications links with a number of agencies in West Virginia. These include

- the Department of Public Safety (state police),
- WVOES,
- seventeen county warning points throughout the state,
- a network of county sheriffs' offices, and
- various radio and television stations that subscribe to its services.

The Department of Public Safety staffs the data links with NWS on a 24-hour basis and has primary responsibility for disseminating weather information to all affected parties at the local level. WVOES serves as a back-up source of information, notifying many of the same organizations contacted by the Department of Public Safety to verify that they are aware of the impending emergency. The other organizations play specific roles in the warning process.

The primary warning systems within the counties are fire and civil defense sirens; loudspeakers on fire, police, and ambulance vehicles; and the emergency broadcasting system. NWS also issues weather watches and warnings to local radio and television stations.

To evaluate the effectiveness of these local warning systems, we interviewed 111 residents of Tucker and Preston Counties, most from the

Preston County town of Albright, about the warnings they may have received. The comments varied. For instance, some people said that they received no warnings, while others said that they heard a siren but did not know what it meant. Some victims said that they thought the warning was for a fire. Others said they knew the warning meant rising water, but did not take actions to save their personal property because the river had never flooded their property before or because the time between the warning and the time they had to leave their homes was so short. Some left their homes taking little or nothing with them.

Warning System Improvements Planned for West Virginia

Both NWS and FEMA are aware of the need for a more accurate and timely warning system and are already working on ways to correct the problem. NWS and FEMA are implementing two systems in West Virginia to improve the flood-forecasting capability—the integrated flood observing and warning system (IFLOWS) and the volunteer observer network. When in place, these systems should help NWS to more accurately predict where and when floods will occur and at what height the flood waters will crest. IFLOWS, which was not operational in the designated disaster area at the time of the November 1985 flood, will also provide participating counties with timely flood-related information that they can use as a basis for warning the local population.

IFLOWS

IFLOWS is designed to provide early detection of flood-producing rainfall. It consists of a series of strategically located rain gauges tied into a computer system that provides continuously-updated precipitation data. The gauges automatically report rainfall to a computer in WVOES, which uses the rainfall data to predict river crests, and to computers in counties where IFLOWS is operational.

As of February 1987, nine counties had fully operational IFLOWS capability and six more were to be operational by May 1987. NWS and 20 more counties have signed memorandums of understanding to install the system. The state hoped to have all counties in the program by the end of fiscal year 1987, according to WVOES' Director of Operations.

According to WVOES' Director of Operations, whose office is responsible for implementing IFLOWS statewide, some counties may not be willing or able to pay for the required maintenance and that, as a result, the system's effectiveness may suffer. NWS is providing funds to purchase the gauges and computers, but maintenance costs are the counties' responsibility in West Virginia. NWS, which estimates that maintenance will cost

about $2,000 per year for each county, is a primary user of IFLOWS data to predict flood locations, times, and crests. Because many rivers in West Virginia flow through multiple counties, NWS' ability to predict flooding may be impaired unless all counties within watersheds participate and maintain their portion of the total system. The WVOES official said that, because NWS is a primary IFLOWS user, it should consider sharing the maintenance costs.

A FEMA regional official also raised a concern about the counties' ability to use the computer equipment effectively and about whether counties all had spaces where the system could be operated 24 hours a day. For instance, the official noted, in one county the emergency management director was a volunteer who also had a full-time job. This individual had no telephone, office, or radio communications. Under these circumstances, it seemed impossible to implement an automated computerized flood prediction system, according to the FEMA official.

To help resolve this problem, a WVOES official said that the state is buying all counties 24-hour weather radios with NWS funds. As of December 5, 1986, these radios had been installed in 15 counties, and the other 40 counties were planned to have them by April 30, 1987. They will be installed at county 24-hour warning points, such as a sheriff's office. The radios are activated automatically when NWS issues a weather alert. This will allow the staff in the 24-hour warning point to activate the IFLOWS equipment and determine the extent of the potential flooding.

Volunteer Observer Network

The volunteer observer network is jointly managed by FEMA and NWS. For West Virginia, NWS funds and FEMA distributes rain gauges to volunteers in flood-prone counties. In a potential emergency, the volunteers read the gauges and call NWS on a toll-free number to report the amount of rain received. NWS uses the rain data to predict flooding.

An NWS official said that a gauge costs about $16 and that each county needed 15 to 20 gauges, making it a relatively inexpensive program. But volunteers are hard to find, according to an NWS official. They tire of reading the gauges, feel they are not needed, and quit. Though most are volunteers, the counties pay some gauge readers $10 to $40 a month. As of February 1987, 10 counties had fully operational networks. An additional 12 counties had received gauges, but they were not yet operational.

Conclusions

FEMA's programs to encourage and ensure appropriate disaster planning at the local level have not been fully successful in West Virginia. Less than one-half of the counties participate in FEMA's program to plan for and respond to emergencies, and most local plans have not been updated and do not meet FEMA's latest criteria for emergency preparedness plans. Although West Virginia law requires local jurisdictions to have an emergency operations plan and an emergency services director, it invokes no penalties for failure to meet those requirements. In addition, neither the state nor FEMA has any financial leverage over local jurisdictions. West Virginia does not, for instance, provide local jurisdictions with funds for emergency planning or operations, and FEMA has stopped encouraging additional counties to expand their emergency planning because it has no additional funds to support the program. The significance of these problems is suggested by the fact that West Virginia has had 10 flood-related disasters since 1972 and 45 of the state's 55 counties have been involved in at least 1 flood-related disaster since April 1977.

While we did not evaluate specific alternatives to resolve these problems, one potential solution could be to develop emergency operations plans on a regional basis. Under the current program, each of West Virginia's 55 counties is to develop an individual emergency operations plan. This requires each county to have its own emergency director and plan. If it could be done, preparing emergency operations plans on a regional basis could alleviate the need to have separate systems for each jurisdiction and could be a more cost-effective alternative.

With regard to the local warning systems, we believe that the system used during the 1985 flood was not effective, but the new programs should improve the system. Some West Virginia residents either did not receive timely disaster warnings or did not fully understand what the warnings meant. Two programs are being implemented that should provide NWS and the local government officials with more accurate and timely flood-related information. FEMA officials believe, however, that the emergency preparedness staff in some counties may lack the technical capability and training to use the new computerized rain gauge equipment that NWS is providing. In addition, some counties may have difficulty in funding the annual maintenance cost for this equipment. WVOES officials believed that NWS should share in these maintenance costs because it is also a major user of this equipment. Otherwise, the lack of county maintenance could reduce the accuracy and timeliness of the IFLOWS data.

Recommendations

We recommend that the Federal Emergency Management Agency, in conjunction with the states, determine whether intrastate regional emergency operations planning is feasible and potentially more cost effective than the current method of having each county develop its own plan.

We also recommend that NWS develop alternatives for maintaining IFLOWS equipment if some counties are unable to fund maintenance costs. Alternatives could include cost sharing by NWS, the state, and/or county.

Agency Comments

NWS agreed that there may be some counties that may not be willing or able to pay for the required IFLOWS maintenance and that, as a result, system effectiveness may suffer. NWS said that it has an ongoing effort to improve the "maintainability" of IFLOWS equipment that, together with training programs for IFLOWS computer operators, should help relieve counties' budgetary concerns. NWS also said that it will, in cooperation with the state, consider selectively funding IFLOWS maintenance for counties that are strategically located for effective monitoring of statewide flood potential and that are not willing or able to pay for the system maintenance. (See app. III.)

FEMA's comments did not address the recommendation concerning intrastate regional emergency operations planning. The Corps of Engineers concurred with our recommendations. Other comments by these agencies on the chapter's findings and conclusions are included in appendixes II and III.

Public Assistance Program Encountered Problems

FEMA and other federal agencies estimate that about $170 million will be spent on public assistance as a result of the November 1985 flood in West Virginia. In analyzing the process for approving and disbursing the funds, we found that (1) it took an average of about 6 weeks for an applicant's project application to be approved, (2) some initial federal project costs were understated and incomplete, which slowed recovery efforts, (3) it took about 4 weeks for the state to reimburse the applicant for the costs incurred in repairing flood-related damages, and (4) applicants were concerned about final payment procedures.

Direct federal assistance was provided by the Soil Conservation Service and the U.S. Army Corps of Engineers, which responded to the disaster immediately under their individual emergency authorities. The Soil Conservation Service planned to spend a total of about $34.4 million by April 30, 1987, on contracts for debris removal and stream restoration. The Corps started general debris removal in West Virginia 2 weeks after the disaster declaration. It did not begin general debris removal sooner because it did not have the authority to respond until requested to do so and funded by FEMA. Recent legislation expands the Corps' authority to respond immediately in future disasters by taking actions needed to protect life and property, but it does not authorize the Corps to initiate general debris removal.

FEMA obligated $10 million for the Corps' debris removal activities. Although nearly all of the Corps' work was completed by July 1986, the Corps did not notify FEMA until early January 1987 that it needed only about $3 million for debris removal. As a result, FEMA could not use the remainder of the funds for other disaster-related projects between July 1986 and January 1987.

FEMA's Public Assistance Application and Payment Process

FEMA provides public assistance grants to applicants such as state governments, local governments, and certain nonprofit organizations for the repair, restoration, or replacement of facilities and equipment. Generally, FEMA pays 75 percent of the eligible costs, and the applicant pays the remaining 25 percent.

The public assistance process for West Virginia began on November 7, 1985, when the President issued the disaster declaration. FEMA and the state then negotiated an agreement that contained the understandings, commitments, and conditions for assistance. The basic agreement, dated November 14, did not provide for public assistance but was amended on November 18 to make 28 counties eligible for public assistance. This

amendment also stipulated that West Virginia's share of the public assistance costs was capped at $5 million and that FEMA would pay all costs over that amount.[1] The agreement was amended again on November 23 to add another county to the public assistance program.

During the November 18-20 period, FEMA and the state conducted briefings for state and local officials interested in applying for public assistance. After FEMA officials explained the requirements and procedures, applicants completed a notice of interest form, which was used for scheduling damage survey inspections, and a project application form.

A joint federal, state, and local representative inspection team conducted damage survey inspections. FEMA assigned the Corps and the Federal Highway Administration the responsibility for the inspections. The local representative was present to ensure that the team inspected all damages. The inspectors recorded pertinent information on a damage survey report (DSR), including a description of the damage, proposed repairs or replacement, and the inspectors' best estimate of the cost of recommended work. By signing the DSR, representatives of the Corps and the Federal Highway Administration indicated that the DSRs provided an accurate and reasonable basis for FEMA to determine the eligible work and estimated costs.

A FEMA official reviewed the DSRs for completeness, accuracy, and general eligibility. By signing the DSR, the FEMA representative indicated that, in his view, the DSR was complete and was a reasonable basis for a project application. At this point, the DSR was normally included with other DSRs in a project application. After FEMA's Disaster Recovery Manager approved the project application, federal funds were made available to the state through a letter of credit.

WVOES administered the public assistance program for FEMA, serving as an interface between the public assistance applicants and FEMA. Its responsibilities included forwarding requests for inspections and supplemental assistance from the applicants to FEMA; sending approved project applications from FEMA to the applicants; receiving, reviewing, and processing requests for payment from the applicants; and sending payments to the applicants.

[1]The Governor of West Virginia requested a full waiver of the state's 25-percent share of public assistance costs because of the severity of the disaster and the lack of financial resources.

Project Application Process Took About 6 Weeks or Longer

To get some indication of how long it took to process and approve the public assistance applications, we reviewed all the initial basic applications, supplemental applications, and related DSRs received by WVOES from applicants in Preston and Tucker Counties as of April 30, 1986. This included 13 initial basic applications, 23 supplemental applications, and a total of 127 DSRs—89 for the initial applications and 38 for the supplemental applications. Statewide, about 500 applications and supplemental applications and about 2,700 DSRs were prepared. FEMA had authorized the 13 applicants to receive $4.2 million in public assistance, which represented 7.2 percent of the total $58.4 million authorized for all applicants in the state at that time.

In analyzing the 127 DSRs, we isolated 11 individual processing steps. Because the DSRs lacked many of the required dates, however, we could not compute the time taken for each step for all DSRs. Therefore, we divided the processing time into three broad categories—inspection, review, and approval—and determined the time applicable to each category for each DSR. Our analysis shows that the process for approving initial basic and early supplemental applications for public assistance took less than 6 weeks—about 41 days and 39 days, respectively (see table 3.1).

Later supplemental applications were not processed as quickly. During our contacts with the 13 applicants in Preston and Tucker Counties in September and October 1986, the applicants complained that FEMA took too long to process supplemental DSRs and applications. We obtained from the applicants copies of 17 additional supplemental applications that were not in WVOES files when we selected our initial sample. As table 3.1 illustrates, FEMA took much longer to approve these later supplemental applications, an average of about 102 days, or over 14 weeks.

Table 3.1: Average Time Spent to Approve Public Assistance Applications

Type of application	Number of applications	Number of DSRs	Average time spent (in days)			
			Inspection phase	Review phase	Approval phase	Total[a]
Initial basic[b]	13	89	9.1	14.0	16.7	**40.6**
Early supplemental[b]	23	38	8.1	14.9	18.7	**38.4**
Later supplemental[c]	17	66	38.1	13.1	52.9	**102.1**

[a]Totals will not add because of missing dates for some steps.

[b]Data sampled as of April 30, 1986.

[c]Additional data sampled in September 1986.

The FEMA Public Assistance Officer, who was responsible for approving the public assistance applications, believed that the time frames, as calculated from the May 1986 data for the approval phase, were too long. This official attributed most of the approval time to delays in administrative procedures, such as entering data into computers and typing the necessary documentation.

FEMA headquarters officials said that they did not have criteria for how long the process should take, although they acknowledged, it took longer in West Virginia than FEMA liked. In commenting on our draft report, FEMA noted further that the West Virginia disaster was very complex and occurred during a period, September through November 1985, when its limited resources were strained by the declaration of 15 disasters that required the preparation of over 15,000 DSRs and resulted in eligible damage in excess of $275 million.

At the conclusion of our review, FEMA was implementing a disaster response evaluation system that would provide a database to support the development of standards for how long the process should take. At that time, FEMA officials noted that the approval process may take even longer in the future because the Congress will no longer allow FEMA to use disaster assistance employees in the regional offices. They said that many of the administrative duties were normally done by these employees, who were temporary. FEMA had used such employees to perform permanent, ongoing functions (such as public assistance application processing). However, the Congress recommended that FEMA use regular civil service personnel to perform such duties beginning in fiscal year 1987 and provided the funding for the replacement of the temporary employees by civil service employees.

In commenting on our draft report, FEMA stated that it now believes that the loss of disaster assistance employees in the regional offices should not delay the processing of supplemental project applications because FEMA has been authorized to hire additional permanent full-time personnel to handle such applications.

Some Initial Project Costs Were Underestimated

In some cases, the application process was prolonged because supplemental applications had to be processed. As discussed above, the 13 applicants in Preston and Tucker Counties filed 40 supplemental applications. Some of these supplements were necessary because the initial DSR estimates were too low and the scope of work to be done was incomplete, according to the applicants. They also said that the bids they

received consistently exceeded the approved DSR amounts and usually were higher when they sought another bid to obtain a lower price. The following are specific examples of estimating problems that contributed to delays in recovery efforts.

On January 15, 1986, FEMA's Disaster Recovery Manager approved $5,500 to repair the city of Kingwood's river intake for the city water system. Kingwood requested a supplement to replace the system and to regrade the river channel on February 5, 1986. The Disaster Recovery Manager approved the supplement for $89,000—about 16 times the original estimate—on July 18, 1986. FEMA said the initial inspection estimate was low because the system was so badly damaged that all of the problems were impossible to identify.

The town of Rowlesburg also found it necessary to file supplemental applications. For example, the initial application, which was approved on December 18, 1985, included $85,673 for sewer lines. Because the DSR estimates for this application were too low or the scope of work was incomplete, Rowlesburg requested scope changes on January 29 and April 25, 1986. FEMA's Disaster Recovery Manager approved these supplements on April 17 and July 29, 1986, for $205,500 and $127,650, respectively. Little physical construction was done while the town was waiting for these supplemental approvals. In commenting on the delays, FEMA said that the full extent of the damage to the sewers could not be identified until work started. Also, FEMA subsequently said that detailed surveys for an entirely new design and the associated land acquisition were taking place.

A similar situation existed for the town of Albright. Its initial application, which was approved on December 19, 1985, included $86,988 for streets and sidewalks and $76,070 for storm drains. The Disaster Recovery Manager approved a supplement on July 24, 1986, for an additional $12,740 for streets, sidewalks, and curbs and an additional $33,524 for storm drain items omitted from the original DSR. The supplements added curbs, changed the sidewalk width from 3 feet to 4 feet, and allowed for replacing and cleaning the catch basins and replacing fill dirt. Work on these projects was just beginning at the time of our September 1986 visit. FEMA said that the damages could not be fully identified until the work had begun.

Public Assistance Payment Process Took About 4 Weeks

Once FEMA approved the initial applications and, in some cases, supplemental applications and the work began, the applicants submitted requests for payments to WVOES' Public Assistance Office. We found that the payment process took about 4 weeks.

To derive this figure, we reviewed all payment requests that the applicants in Preston and Tucker Counties had made as of April 30, 1986. At that time, 9 of the 13 applicants had submitted a total of 40 payment requests totalling about $1.2 million; of that amount, about $1.1 million had been paid, which represented about 10 percent of the total paid to all West Virginia public assistance applicants at that time. Our analysis of these 40 payment requests showed that they were processed in an average of 26 calendar days. The fastest payment was made in 14 days and the slowest, in 55 days.

One processing point that lengthened the payment process involved the Governor's Office, according to WVOES officials. All public assistance payment requests and payments had to be routed through the Governor's Office, a procedure which was unique to this disaster. This routing was not required on earlier disasters but was required for the November 1985 disaster because the Governor believed that his office could accelerate the payment process by directing all state offices involved to expedite flood-related paperwork, according to state officials. Our analysis shows that it took an average of 11 calendar days to process the payments through the Governor's Office. The shortest time was 2 days; the longest was 31 days.

The 26-day average processing period was shorter than the time that West Virginia takes to process normal payments but was not as fast as it processed payments in past disasters, according to state officials. WVOES officials said that routing the payments through the Governor's Office was the primary reason that payment took longer during this disaster.

In commenting on our draft report, the Office of the Governor of West Virginia said that other factors should be considered in evaluating the time required to make public assistance payments. The state's comments and our responses are in appendix IV.

Applicants Concerned About Final Payment Procedures

Another concern with the public assistance program involves FEMA's requirement that part of the applicant's payment request be withheld pending the final audit. FEMA requires that 10 percent of the payment request be withheld when the costs are a result of contract work and

that 25 percent be withheld when the costs are for the applicant's own work force. During our September and October contacts, many applicants said that they did not have the funds to pay all of their bills prior to reimbursement.[2] One applicant estimated that the amount to be withheld pending final inspection would exceed $120,000. Another applicant estimated the amount to be withheld at about $150,000 and said it was already $95,000 short of its annual budget.

Other applicants were concerned about receiving the final payment after a final inspection has been conducted. Two applicants had received final inspections on at least one DSR, and one applicant had received final inspections on seven DSRs. None of the three applicants, however, had received any final payments. At the time of our contacts, some of these applicants were concerned about receiving final payment and did not know how to get it.

In this respect, FEMA regulations state that final payment will not occur until the applicant completes all approved work for which a claim is made, pays all related bills, and has a final FEMA inspection. FEMA requires a final inspection on any grant exceeding $25,000 and may do so at its option on grants for less than $25,000. These regulations also give FEMA the option of conducting a field review (which resembles an audit) of the applicant's claim, prior to making final payment.

FEMA's Public Assistance Officer said that the final inspection reports will not be used as a basis for making final payments. According to this official, FEMA plans to perform the optional field reviews of the applicants' claims before making the final payments. The state sent information on how to receive final payment in November 1986 to the five applicants who were ready to request payment and to all other applicants in January 1987, according to WVOES. FEMA's Philadelphia regional office reported that about 73 percent of the approximately 2,800 final inspections to be performed in West Virginia had been completed as of July 29, 1987. FEMA officials said that FEMA personnel had performed partial final inspections on some of the remaining 27 percent.

[2]According to FEMA, the state has established a revolving fund to loan public assistance applicants the balance of their claim. Interest is 1 percent.

Timeliness of Direct Federal Assistance Provided to West Virginia

The Soil Conservation Service and the Corps of Engineers provided direct federal assistance to West Virginia. Most was in the form of debris removal and stream restoration. The Soil Conservation Service and the Corps began work almost immediately after the disaster, but neither has authority to provide general debris removal services until requested to do so by FEMA. Recent legislation expands the Corps' authority to respond immediately in future disasters but does not authorize the Corps to initiate general debris removal.

Soil Conservation Service Immediately Started Cleanup Activities

The Soil Conservation Service had spent about $26.4 million on flood activities in West Virginia as of September 1986 and planned to spend an additional $8 million by April 30, 1987. The primary activities involved contracts for debris removal and stream restoration. The Service awarded contracts to begin these recovery efforts immediately after the disaster declaration in accordance with the Agricultural Credit Act of 1978. This act authorizes the Service to undertake emergency measures for runoff retardation and soil erosion prevention as needed to safeguard life and property from floods, drought, and the products of erosion on any watershed whenever fire, flood, or any other natural occurrence causes a sudden impairment.

The Morgantown, West Virginia, Soil Conservation Service staff administered the flood recovery work under the Emergency Watershed Protection program. The Service determined that all conditions the November 1985 floods caused were exigencies that called for immediate federal action and 100-percent federal funding.

The Soil Conservation Service awarded 133 contracts and 181 purchase orders valued at about $24.4 million for channel restoration, debris removal, and seeding along about 400 miles of streams in 19 counties. It spent an additional $2 million for program administration. The contracts were awarded in two phases. The first-phase contracts were awarded immediately following the flood, with emphasis on providing relief from clogged streams to reduce flood damage. The second-phase contracts were awarded for channel restoration, debris removal, and seeding. Of the 152 awards in the first phase, work began on 140 in November—within about 3 weeks of the disaster.

FEMA and the Corps Had to Wait for the State to Request Assistance

The Corps does not have the authority to provide general debris removal assistance until requested to do so by FEMA. Likewise, FEMA does not request the Corps' involvement until the state asks for assistance. Because the state did not request FEMA's help in debris removal until November 20, FEMA did not request Corps assistance and the Corps did not begin general debris removal immediately after the disaster. They did respond quickly after receiving the state's request, however.

FEMA approved the state's request on November 21 and authorized the Corps to incur costs of up to $10 million on debris removal activities on November 23. The Corps awarded its first contracts for this assistance on November 24. Overall, the Corps awarded 46 contracts at a total cost of $2.6 million and incurred administrative expenses of about $400,000 as of February 1987.

All 46 Corps contracts were complete as of July 1, 1986, but the Corps did not advise FEMA until early January 1987 that the Corps would not need about $7 million of the $10 million FEMA had authorized it to spend. FEMA did not monitor the Corps' need for these funds. Federal regulations require federal agencies to promptly return to FEMA any excess funds given to them for FEMA assignments, and, although FEMA did not give these funds to the Corps, they were obligated for the Corps' use and thus not available for other FEMA uses between July 1986 and January 1987. In February 1987, FEMA headquarters officials told us that they recognized the need for FEMA regional staff to monitor other federal agencies' need for FEMA funds more closely.

As discussed above, the Corps could not begin general debris removal activities until requested by FEMA. The Corps did, however, have limited authority under Public Law 84-99 to pay for preparations for flood emergencies, flood-fighting, and rescue operations, or the repair or restoration of any flood-control work threatened or destroyed by flooding. The Corps' Pittsburgh District did three projects under this law at an estimated cost of about $290,000.

During our review, the Corps received expanded authority to respond to disasters. As a result of Public Law 99-662, enacted on November 17, 1986, which amended Public Law 84-99, the Corps will be able to react immediately after a governor requests an emergency or disaster declaration, acting under its own authority for 10 days without a FEMA request. During that period the Corps is permitted to take actions needed to protect life and property, including debris removal and temporary restoration of public facilities. However, according to the Corps, while some

debris removal may be authorized under the expanded legislation, general debris removal such as that required in West Virginia is beyond the intent of the legislation. Corps officials said that they planned to have detailed guidance on this new authority coordinated with FEMA by December 1987.

Conclusions

Our analysis of a sample of public assistance applications indicates that it took an average of about 6 weeks for the initial basic applications and early supplemental applications to be approved. For later supplemental applications, the approval process took more than twice as long. Some of the applicants we interviewed, as well as FEMA's Public Assistance Officer, said that FEMA took too long to approve supplemental applications. We also noted that some federal damage estimates were significantly understated and incomplete, which necessitated supplemental applications. These estimating problems contributed to delays in recovery efforts.

After FEMA approved the basic and supplemental applications and the work was underway, the applicants submitted requests for payment to WVOES, which administered the payment process for FEMA. Our review of a sample of payments showed that the state took about 4 weeks to process the requests and pay the applicants.

Recommendation

We recommend that the Director of the Federal Emergency Management Agency pursue development of standards for how long the public assistance application process should take to better enable FEMA to identify opportunities to expedite the process.

Agency Comments

FEMA's comments did not address this recommendation. The Corps of Engineers concurred with our recommendation. Other comments by these agencies on this chapter's findings and conclusions are included in appendixes I and II.

The Office of the Governor of West Virginia said that factors in addition to those we discussed should be considered in evaluating the time to make public assistance payments. The state's comments and our responses are in appendix IV.

FEMA's Individual Assistance Programs Experienced Difficulties

FEMA spent about $27 million on individual assistance programs in West Virginia. While this assistance was provided rather quickly, FEMA experienced some problems. For example, funds initially given to victims to repair their residences were less than the amount to which they were entitled, the state built twice as many mobile home group-site pads (foundations) with FEMA funds than were used, and the individual and family grant program limit of $5,000 was too low to meet the basic needs of about one-third of West Virginia's flood victims.

Types and Extent of FEMA's Individual Assistance

FEMA provided several types of assistance to eligible flood victims after the West Virginia flood such as temporary housing, individual and family grants, disaster unemployment assistance, and crisis counseling. Table 4.1 shows the amounts approved for these programs.

Table 4.1: Cost of FEMA's Individual Assistance (As of Nov. 17, 1986)

Dollars in millions

Assistance provided	Amount
Temporary housing	$16.6
Individual and family grants	8.7[a]
Disaster unemployment	.8
Crisis counseling	.8
Total	**$26.9**

[a]As of August 12, 1986. The state is required to reimburse FEMA for 25 percent of this amount.
Source: FEMA and the West Virginia Department of Human Services.

Temporary housing assistance was offered to applicants whose primary residences were damaged or destroyed. It included rent payments; transient accommodations; funds to repair a residence; furniture funds; and mobile homes for commercial, private, or group sites.

Individual and family grants were given to victims who could not meet disaster-related necessary expenses or serious needs as a result of the disaster. These grants normally covered expenses not covered by other disaster relief programs such as disaster-related medical, dental, and funeral expenses and the repair or replacement of privately owned vehicles. The state administered the program, and FEMA funded it. The state was required to reimburse the federal government for 25 percent of the total cost by November 1, 1987.

Disaster unemployment assistance provided financial compensation and reemployment services to individuals unemployed as a result of the

flood. The Department of Labor administered this program for FEMA. We did not review West Virginia's program because of the small amount of funds involved.

Crisis counseling was provided to victims to relieve mental health problems caused or aggravated by the flood. As the delegate of the Secretary of Health and Human Services, the National Institute of Mental Health administered the counseling program, which FEMA funded. Again, we did not review this program because of the small amount of funding involved.

FEMA Provided Temporary Housing Assistance Quickly but Encountered Some Problems

FEMA provided about $17 million in housing assistance to the West Virginia flood victims. Our review of 49 cases showed that FEMA provided this assistance quickly, within an average of 1 to 4 weeks. Because initial payments to victims for repairs to their residences were less than the amounts to which the victims were entitled, FEMA issued hundreds of supplemental checks. Also, FEMA had the state build twice as many mobile home pads as were used.

Types and Costs of Housing Assistance Provided

FEMA provided a variety of housing assistance to 4,390 of 6,018 applicants. FEMA's assistance included the following:

- minimal repair funds for homeowners whose residences could be repaired for $4,700 or less,
- rent money for homeowners whose residences could not be repaired for $4,700 or less,
- rent money for renters who rented property which was determined to be uninhabitable as the result of a disaster,
- mobile homes for homeowners who could not repair their residences for $4,700 or less and for homeowners and renters who could not find an available rental unit (limited to 18 months, the first 12 of which were rent free),
- transient accommodations to eligible applicants who needed temporary housing for only a short time (limited to 30 days), and
- funds to replace lost or damaged furniture.

To determine eligibility for temporary housing assistance and the specific type to be provided, FEMA contracted to have each applicant's residence inspected to assess the damage and to verify occupancy and ownership at the time of the flood.

Table 4.2 shows the number of applicants who received the various types of assistance and table 4.3 shows the cost of the housing assistance FEMA provided.

Table 4.2: Number of Applicants Given Housing Assistance (As of Sept. 22, 1986)

Assistance provided	Number of applicants
Private rentals	1,006
Transient accommodations only	46
Minimal repair	2,877
Mobile homes:[a]	
Private site	77
Commercial site	64
Group site	320
Total	**4,390[b]**

[a]Mobile home data are as of November 17, 1986.

[b]Many applicants received more than one type of assistance, including 387 who received transient accommodations in addition to other temporary housing assistance and 1,425 who also received assistance to buy furniture.

Source: FEMA.

Table 4.3: Cost of FEMA's Housing Assistance (As of Nov. 1986)

Type of housing assistance	Cost
Mobile homes:	
Group site construction[a]	$6,554,395
General[b]	2,203,870
Total—mobile homes	**8,758,265**
Minimal repair	4,552,021
Furniture	1,953,791
Private rentals	1,012,000
Transient accommodations	179,026
Contractor housing inspections	173,930
Total	**$16,629,032[c]**

[a]Represents funds FEMA gave the state on a letter of credit to build mobile home group sites. Preliminary data from the state show construction contract costs of about $5.9 million.

[b]Includes the cost of transporting FEMA mobile homes to and from West Virginia, setting them on a pad, maintaining them, and leasing the mobile home pads.

[c]Total does not add because of rounding.

Source: FEMA.

FEMA Provided Housing Assistance Within 1 to 4 Weeks

To obtain some indication of how quickly FEMA provided housing assistance, we selected 49 cases (37 of which were from Preston and Tucker Counties). As table 4.4 shows, FEMA provided this assistance within an average of 1 to 4 weeks, depending on the type of assistance involved.

Table 4.4: Time Taken to Provide Housing Assistance

Type of housing assistance	Number of cases reviewed[a]	Average days to provide assistance
Rent	12	19.7
Minimal repair	25	20.6
Mobile home[b]	12	30.4
Total	**49**	

[a]For these 49 cases, 26 were for furniture in addition to other housing assistance. Also, for these 26 requests, FEMA took an average of 6.5 days to provide assistance.

[b]Includes three commercial, four private, and five group-site pads

These figures represent the number of days from the date an applicant applied for or requested assistance to the date FEMA issued a check or provided a mobile home. It excludes the time an applicant took to find a rental unit or to request assistance other than that initially offered. In all 12 cases involving mobile homes, FEMA initially offered rent money, but the applicants refused or later returned the rent money and requested a mobile home. For example, in one case an applicant applied for assistance on November 20 and was offered FEMA rent money on December 5. The applicant subsequently requested on December 11 a mobile home that FEMA provided on January 15.

On the basis of our review of 49 cases and in view of the number of applicants (over 6,000), the wide geographical area of the disaster (29 counties), and the need to inspect each applicant's residence, we believe FEMA's response to the victims' housing needs was reasonable. FEMA, however, encountered problems in the housing assistance program, as discussed below.

Minimal Repair Program Understated Some Victims' Needs

In many cases, FEMA's initial payments for minimal repairs to victims' residences were less than the amounts to which the victims were entitled. As a result, FEMA issued supplemental checks to hundreds of victims.

Under the minimal repair program, when damage to a homeowner's primary home is relatively minor and minimal repairs would allow the victim to live in the home, FEMA provides funds to repair essential living

areas, such as the kitchen, bathroom, bedrooms, and living rooms. This program is not intended to provide assistance for repairs to nonessential living areas, such as recreation rooms, garages, or storage areas, according to FEMA.

FEMA bases an applicant's grant on the estimated repair costs. A FEMA contractor inspects a dwelling and lists the damaged items. FEMA then applies estimated prices to the items listed by the contractor to determine the grant amount. Under this program in West Virginia, an applicant could be paid up to $4,700, which represented the approximate cost of providing rent money to an applicant for 1 year. If damages exceeded $4,700, FEMA offered the applicant an initial payment equal to 3 months' rent money. Some victims who were unable to find an available rental unit were subsequently offered mobile homes.

FEMA's project officer for the housing inspection contract said that he became aware in December 1985 that FEMA was receiving numerous requests for additional minimal repair funds. Because this official was concerned about the quality of the initial inspections, he asked the inspection contractor to reinspect 1,000 residences at a cost of $34 each.[1] FEMA then compared the first and second inspection reports on these 1,000 residences, but found only minor differences between the two inspections. The project officer, therefore, concluded that the first inspections were accurate and complete.

To determine the extent of additional minimal repair funds that may have been needed, FEMA sent a checklist to 2,166 recipients asking whether it had provided sufficient funds. Of the checklists FEMA sent, 1,158 (53 percent) were returned. Of those recipients who returned the checklists, 869 (75 percent) subsequently were issued supplemental repair funds. The average amount of supplemental assistance given was $800 (about $700,000 in total). FEMA's assistant housing officer in West Virginia said that time was not available to reinspect the homes of those who responded that they had not received sufficient funds, so FEMA did "desk-top" inspections. A "desk-top" inspection consisted of (1) reviewing the first inspection report, the applicant's response, and the unit prices paid, (2) using these data to prepare a second inspection report, and (3) issuing a supplemental check for additional costs that this analysis identified.

[1]In commenting on our draft report, FEMA stated that the work that the FEMA official had initially referred to as "reinspections" included new applications; applications which were withdrawn from the program because the housing inspector was unable to contact the applicants, who later contacted the field office; and second inspections.

In explaining why FEMA issued so many supplemental checks, its headquarters officials said that FEMA's estimated unit prices were too low for some items; they did not believe that the quality of the first inspections was the problem. FEMA had established the unit prices and applied them to the damaged items that the inspection contractor identified. FEMA recognized that its prices were low and increased them in late December 1985 to avoid additional pricing problems, according to FEMA officials. FEMA believes that the low unit pricing was an unavoidable problem caused by price escalation due to excessive demand.

However, our work indicates that the quality of the initial inspections may have been a problem. In our sample of 49 temporary housing cases, we identified 25 cases in which FEMA provided minimal repair funds. Twelve of these 25 cases received supplemental repair funds. We found that each of these 12 cases involved payments for items not on the initial inspection report. For example, in one case the first inspection report resulted in the applicant's receiving $2,811 for repairs. The second inspection report identified additional repairs totalling $3,101, but the applicant was given $1,889 to avoid exceeding the $4,700 limit. Newly identified on the second inspection report were items such as replacement of insulation, a wood stove, and a water closet; and waterline installation.

Regardless of the reason for underestimating the cost of the repairs, many applicants did not initially receive enough money to complete necessary repairs and subsequently requested supplemental payments. Further, although FEMA's assistant housing officer in West Virginia told us that because of time constraints, these supplemental payments were based on "desk-top" inspections, FEMA headquarters officials said that they were not aware that such inspections had taken place. In commenting on our draft report, they said that supplements for additional items should not have been paid without a physical reinspection because FEMA had no assurance that such payments were proper.

Twice as Many Mobile Home Group-Site Pads Were Built as Needed

The state, at FEMA's direction and a cost of $6 million, built over twice as many mobile home pads in group sites as were occupied. FEMA provided the state with requirements as to how many pads to build and where to build them that changed frequently. In addition, FEMA does not have documentation to support the need for the number of pads eventually built.

Mobile home group-sites are normally provided or obtained by the state or local government at no cost to the federal government. When other funding is not available, FEMA can authorize the building of group sites at federal expense. On November 12, 1985, the state requested FEMA to authorize group sites at federal expense. FEMA approved this request on November 15. The state was required to acquire land, design the sites, develop specifications, solicit bids, evaluate proposals, and award and administer the contracts. FEMA was responsible for determining the general location of the sites (that is, county or city) and the number of pads to be built.

FEMA assumes that the number of mobile home pads built will not exceed the number used by more than a few, according to a FEMA headquarters official. FEMA's instructions make the Disaster Recovery Manager responsible for assuring that no more mobile homes are used than absolutely necessary. The instructions in effect at the time of the West Virginia flood did not, however, provide guidance on how to achieve this goal. FEMA officials, responsible for temporary housing in West Virginia, said they considered several factors, such as the number of applicants and the number of available rental units, to determine the number of group sites to build. They said that determining how many sites to build is more an educated guess than a precise science.

A West Virginia Department of Highways official who administered the mobile home group-site program said that FEMA changed its requests constantly. Between November 22, 1985, and January 10, 1986, FEMA gave the state 11 requests for group sites. The total number of pads that FEMA requested ranged from 160 to 958 pads. In addition, some requests did not specify the number of pads to build. For example, on December 2, FEMA requested a total of 633 pads, with the potential for expansion to include 235 more pads. These changing requests made it difficult for the state to negotiate leases for the land and to contract for construction because sewage treatment facilities must be built to handle the number of pads constructed and contractors must bid on fixed quantities of pads to be constructed, according to this state official.

Ultimately, the state built 647 pads at 13 locations at a cost of about $5.9 million. The state of West Virginia owned 3 of the 13 mobile home sites and signed leases with the landowners of the other 10 sites. Eight of the 10 leases were obtained at no cost. For the other two, one landowner got $24,000 for the lease and $15,000 to restore the land; the other was paid $2,000 for damages to the land. The mobile home pad

construction improvements become the property of the landowner when the lease expires.

Most sites were underutilized, and two sites costing about $625,000 were constructed but not occupied. (See fig. 4.1 for a photograph of one of these sites.) Table 4.5 shows the locations, costs, and number of pads built and occupied at the 13 sites.

Figure 4.1: Unoccupied Pennington Mobile Home Group Site

Table 4.5: Mobile Home Group Sites' Locations, Costs, and Quantities

County	Site name and location	Construction cost	Number of pads built	Number of pads occupied[a] Max.	Nov. 86
Barbour	Myers Clinic, Philippi	$121,604	20	2	1
Grant	Allen's, Cabins	287,977	28	12	2
Grant	Cedar Manor, Petersburg	815,263	116	50	9
Hardy	Misty Terrace, Moorefield	1,103,639	132	74	20
Jefferson	Witch Hazel, Shenandoah Junction	162,689	15	15	12
Pendleton	Bowers, Seneca Rocks	287,303	31	20	5
Pendleton[b]	Painter, Franklin	668,396	30	29	13
Pocahontas	Myers, Marlinton	727,051	80	34	16
Preston	Kingwood Crossing, Manown	117,623	13	7	3
Preston	Renaissance Square, Rowlesburg	637,193	52	29	15
Preston	Shuman, Browns Mill	168,266	20	0	0
Tucker	Parsons Overlook, Parsons	365,092	49	48	14
Tucker	Pennington, Parsons	457,127	61	0	0
Total		**$5,919,222[c]**	**647**	**320**	**110**

[a]These columns show the maximum number of pads occupied at any time and the number of pads occupied as of November 17, 1986.

[b]According to a state official, 30 pads were completed and 30 additional pads were constructed but full hookups were not done.

[c]Total does not add because of rounding.

FEMA's records indicate that 320 mobile homes were occupied on these group sites. This represents less than half the number of pads built. We could not determine why the number of pads built exceeded the number occupied because FEMA officials could not document how they determined the number to build. FEMA officials said, however, that there were several reasons why so many unoccupied pads were built, including the following.

1. Because of the large number of victims, the obvious lack of other housing, the impending winter weather, and FEMA's desire to get pads built, FEMA decided to expedite determinations for mobile home requirements. FEMA used the number of applications to determine how many pads to build instead of screening the applications first to determine the number of eligible applicants, which is normal procedure.

2. Applicant withdrawals were unusually high. Withdrawal may have been prompted by any one of several factors: many applicants were unwilling to live in a group site; the group sites were too far from former

residences; the state waived the sales tax on mobile home purchases, which encouraged victims to purchase mobile homes; and many victims were independent and self-reliant.

3. The state built more pads than FEMA requested and took too long to build them.

The first two of these points may partially explain why more pads were built than needed. First, using expected or actual applications instead of the eligible applications to determine how many group-site pads to build may have contributed to overbuilding of the pads. Second, preliminary damage assessments estimated that there would be about 9,000 applicants for temporary housing assistance, but only about 6,000 applied. Further, of the 6,000 applicants, FEMA determined that 750 were ineligible, and another 880 withdrew their applications.

Regarding No. 3, contrary to FEMA's assertion, the state built fewer pads than FEMA requested and appears to have completed construction in a reasonable time frame. As discussed earlier, FEMA sent numerous requests to the state outlining the number and locations of the pads to be built. As of January 10, 1986, the date of the final FEMA request, FEMA had identified a potential requirement of 807 pads. In separate concurrences, however, FEMA agreed that the state could construct 666 pads at 13 sites. The state actually built 647 pads, or 19 fewer than FEMA approved, according to the state documents and state officials we interviewed.

Concerning the time taken to construct the pads, in view of FEMA's changing requirements, the large number of sites involved, and the winter weather conditions, the state's construction time appears reasonable. The state awarded contracts within an average of 3 days after getting FEMA concurrence on a project. The average construction time from award to arrival of mobile homes at the site was about 24 days.

The problem of overbuilding mobile home group-site pads may have been avoided or alleviated if FEMA had provided more definitive criteria on how to determine the number of pads to be built. In addition, because FEMA was unable to produce any documentation as to how it determined the number to be built, few data exist that could be used to help avoid similar problems in future disasters.

In June 1987, after the conclusion of our field work, FEMA issued expanded instructions for its headquarters, regional, and field staffs to

use in administering the mobile home portion of the temporary housing program. The revised guidance stresses continual monitoring and evaluation of activities involving group sites to avoid overbuilding. This process is to include contact with applicants on a regular basis to verify continuing need and construction of sites performed in phases to allow for reducing the number of pads to be constructed. The guidance also requires maintenance of official files that fully document all decisions relating to the group-site construction process in sufficient detail to substantiate all decisions and to provide a comprehensive audit trail.

Plans for Group Sites Varied

The subsequent uses of the 13 group sites varied, according to data FEMA supplied in May 1986. The state of West Virginia owned and planned to build permanent housing at Franklin and Rowlesburg, and sell the Manown site. The owners of the mobile home sites in Marlinton and Philippi did not plan to allow mobile homes past the lease periods, and the owner of the Shenandoah Junction site was undecided about its subsequent use. The leases on those three sites were to expire between December 31, 1986, and a year later. The owners of the other seven leased sites planned to allow mobile homes after the state's leases expired.

Individual and Family Grant Limit May Be Increased

The individual and family grant program provides grants to victims to meet disaster-related necessary expenses and serious needs not met by other programs. The program is 75 percent federally funded and 25 percent state-funded and administered by the state. The Disaster Relief Act of 1974 limits each grant to $5,000, which FEMA and the state believe may not be sufficient to meet the needs of all victims. The Congress is now considering legislation to raise the grant limit.

According to the act, the program's intent is to provide funds for those items necessary for a victim to recover from a disaster. It is not intended to provide assistance for damages covered by insurance; restore the recipient to a predisaster condition; provide nonessential, luxury, or decorative items; or replace all losses. These grants are provided only when needs remain after the victim has been through the normal delivery sequence of volunteer agency emergency assistance, insurance proceeds, temporary housing assistance, and SBA disaster loans.

Individual and Family Grant Activity in West Virginia

As of August 1986, the state had received 4,037 applications for individual and family grants. At that time, 40 were being processed, 160 had been withdrawn, 745 had been denied, and 3,092 had been approved, for a total of about $8.7 million, or an average of about $2,800 per recipient. According to a state document, the primary reasons for the denials were that (1) items were ineligible, (2) needs were met by temporary housing, (3) the property was not the applicant's primary residence, (4) the needs were met by insurance, or (5) the applicant failed to provide all necessary information. The state paid about 80 percent of the approved applicants within 90 days of the date the victim applied for assistance, as shown in table 4.6.

Table 4.6: Time Frames to Pay Individual and Family Grant Applicants (As of July 1986)

Days until paid	Percentage paid
0 - 30	12.6
31 - 60	39.7
61 - 90	27.8
91 - 120	10.5
Over 120	9.4

Source: West Virginia Department of Human Services.

FEMA officials said that they have since revised the individual and family grant procedures to reduce the time needed to make the awards. The officials provided documentation which shows that since implementing new procedures, states have been able to award about 90 percent of the grants within 60 days.

Maximum Limit on Grants May Not Meet Victims' Needs

As of July 1986, about one third of West Virginia's individual and family grant recipients received the maximum grant of $5,000. Table 4.7 shows the amounts paid to grant recipients.

Table 4.7: Amounts Paid to Individual and Family Grant Recipients (As of July 1986)

Amount paid	Percentage paid this amount
Less than $1,000	23
$1,000 to less than $2,000	20
$2,000 to less than $3,000	12
$3,000 to less than $4,000	7
$4,000 to less than $5,000	5
$5,000	33

Source: West Virginia Department of Human Services.

The Congress established the $5,000 limit for individual and family grants in 1973 and has not adjusted it to allow for price increases. FEMA proposed legislation in March 1986 to increase the limit to $7,500. FEMA said at that time that the increase would provide badly needed assistance to the neediest applicants who are uninsured or underinsured, suffer a significant amount of housing and personal property damage, and cannot qualify for SBA loans. The U.S. Senate passed the legislation, but the House of Representatives did not vote on it. FEMA officials said that, although the average grant nationwide was $1,600, it is difficult to determine what the maximum grant should be.

West Virginia believes the $5,000 limit is too low. The state appropriated additional funds for a supplemental individual and family grant program. These funds were in addition to the state's required 25-percent contribution to FEMA's program and were given to victims who had received the $5,000 maximum grant but still had unmet needs. A state official said that these funds were for the same items eligible under FEMA's program, but that the federal allowance was inadequate to cover all of the items. As of February 1987, the state had awarded about $1.8 million to 1,023 recipients. The average supplemental award was about $1,700.

In June 1987, bills were introduced in the U.S. Senate and House of Representatives that would amend the Disaster Relief Act's provisions that relate to the Individual and Family Grant Program. Under these bills the maximum grant would be increased to $10,000. The limit would be adjusted for inflation annually.

Conclusions

On the basis of our sample, FEMA provided West Virginia flood victims with temporary housing assistance quickly within an average of 1 to 4

weeks. The minimal repair funds initially given to many victims, however, were less than the amounts to which they were entitled, which necessitated supplemental payments. Inaccurate or inadequate inspections and FEMA's low unit prices for damages may have contributed to the initial underpayments. We also found that FEMA issued about $700,000 in supplemental repair payments after FEMA officials in West Virginia did only "desk-top" inspections to justify the additional payments. FEMA headquarters officials said that they were unaware of this situation and that supplemental payments for additional items should not have been made without a physical reinspection.

At FEMA's direction, the state built over twice as many mobile home group-site pads as needed. FEMA assumes that the number of mobile home pads built will not exceed the number used by more than a few. FEMA's instructions make the Disaster Recovery Manager responsible for ensuring that no more mobile homes are used than is absolutely necessary, but these instructions did not provide guidance on how to achieve this goal. According to FEMA officials responsible for temporary housing in West Virginia, they considered factors such as the number of applicants and the number of available rental units, but said that determining how many group sites to build is more an educated guess than a precise science. Because of the large number of victims in West Virginia and FEMA's desire to respond quickly to their needs, FEMA also expedited its mobile home requirement determinations, according to FEMA officials.

In addition, FEMA could not document how it determined the number of pads to build or where to build them. Since providing a mobile home to victims is very costly—$9,150 on average for each pad constructed in the West Virginia group sites plus the costs of transporting and maintaining the homes—we believe that it is important for FEMA not only to have a sound basis for its decisions but also to fully document those decisions.

In June 1987, FEMA issued expanded instructions for its staff to use in administering the mobile home portion of the temporary housing program. The revised guidance stresses continual monitoring and evaluation of activities involving group sites to avoid overbuilding of pads. The guidance also requires maintenance of official files that fully document all decisions relating to the group site construction process.

Agency Comments

In commenting on our draft report, FEMA stated that overbuilding mobile home pads can be avoided by closely monitoring the need for mobile

homes and incremental contracting and development of group sites. FEMA also commented that its mobile home operations do not usually experience problems of the magnitude that we found in West Virginia. We acknowledge the difficulties FEMA faced in West Virginia and believe that the newly expanded instructions should help FEMA avoid similar problems in future disasters. In particular, the documentation requirements, if properly implemented, will provide a record of major decisions in mobile home operations that will enable FEMA to determine whether further program revisions are required.

Improvements Being Made in Small Business Administration's Disaster Loan Program

SBA, which makes low-interest loans to disaster victims, loaned victims of the November 1985 flood about $55 million. Although several months passed before substantial amounts of SBA funds reached the victims, much of this time is attributable to the victims' actions, for many victims were slow in applying and in returning the required closing documents to SBA. SBA, however, did not meet its time goal for processing loan applications. It is currently implementing revised procedures to reduce the processing time by assisting victims in the application and loan-closing processes. These changes could reduce the time needed to complete the loan process.

SBA's Disaster Loan Authority and Procedures

The Small Business Act authorizes SBA to make loans to repair, rehabilitate, or replace real or personal property that has been damaged or lost as a result of disasters. SBA can make these loans after a disaster declaration by the President or SBA's Administrator.

Loan Types and Eligible Costs

SBA makes both home and business disaster loans. Home loans are intended to repair or replace a primary personal residence, its contents, and other personal property. The disaster victim does not have to be a homeowner to be eligible for a loan; nonowners are eligible for loans for personal property such as furniture, appliances, and motor vehicles. Luxury items such as furs, jewelry, and recreational vehicles are not eligible for SBA disaster loans. Owners of residential rental property and operators of profit and nonprofit business organizations are also eligible for SBA loans. They can also obtain loans for real and personal property.

SBA regulations contain separate limits on loans made for homes and businesses. Home loans are generally limited to a total of $120,000 for damages to both real and personal property. Loans of $5,000 or less are generally unsecured, while loans over $5,000 are usually secured by collateral. The Small Business Act limits loans to any business to $500,000 unless it constitutes a major source of employment. In these cases, the SBA Administrator can waive the $500,000 limit.

SBA has two interest rates for home loans and profit-oriented businesses. The rates used in West Virginia were 4 and 8 percent, respectively. The lower rate applied to applicants whom SBA determined were unable to secure credit elsewhere. The higher rate applied to those applicants whom SBA determined could get credit elsewhere.

West Virginia Loan Applications

By October 1, 1986, SBA had accepted 2,878 applications for disaster assistance loans from West Virginians. Of these, SBA approved 1,850 applications and had 10 in process. The other 1,018 applications were declined or withdrawn. Of the 1,850 loan approvals, 506 were cancelled, most at the applicants' requests subsequent to SBA approval, according to an SBA official. SBA had disbursed $46 million, or 83 percent, of the $55.3 million in approved, non-cancelled loans by October 1, 1986.

SBA Loan-Processing Procedures

Between the time applicants completed and returned the SBA loan application that they received at a disaster application center and SBA mailed a check to the applicants, SBA generally performed four standard loan-processing activities as follows:

1. Screening and docketing. The application package is examined for completeness. If it is complete enough to accept, it is logged in, and the applicant is notified of the required information that is needed to complete the package.

2. Verification. SBA staff visit the applicant's property to verify the disaster-related damages and estimate repair or replacement costs.

3. Loan processing. Loan officers examine factors such as the applicant's repayment ability, credit history, and character, and, if approved, set the terms and amount of the loan.

4. Legal review. The loan package receives a legal review. Closing documents are typed and mailed to the applicant to sign and return.

Procedures Revised for West Virginia Disaster

SBA's disaster area office in Atlanta normally performs all loan procedures for West Virginia applicants. For the November 1985 disaster, SBA revised its screening and docketing procedures at the request of the Governor of West Virginia. SBA agreed to screen and docket West Virginia applications in that state rather than in SBA's Atlanta office and to retain the application files in its Clarksburg, West Virginia, field office until the packages were complete.

SBA Atlanta office officials said that, in some cases, retaining an application in Clarksburg until the package was complete delayed processing the loan application. Typically, the application package would have been sent to the area office, where processing would have commenced

before all documents were received. By holding the packages in West Virginia, this advance processing was not possible.

SBA's Processing Goals Not Met

SBA did not meet its established goal to process 90 percent of the West Virginia disaster loan applications within 60 days after it accepted them. For example, excluding the time during which SBA was awaiting information from the applicants, SBA processed 64 percent of the applications within 60 days, based on the time period between acceptance of the loan application and the mailing of the loan-closing documents.

SBA Did Not Meet Its Application-Processing Goals

To determine whether the Atlanta office met its goal to process 90 percent of the West Virginia applications within 60 days, we analyzed its status reports. These reports include only the time SBA was processing the applications and do not include "dead-time," the time application processing was suspended while awaiting data from an applicant. SBA did not meet its goal: 36 percent of the applications accepted took longer than 60 days. Table 5.1 provides details on the percentage of West Virginia loan applications by loan type that exceeded the 60-day goal, excluding "dead-time."

Table 5.1: West Virginia Loan Applications Exceeding the 60-Day Goal, Excluding "Dead-Time" (As of June 4, 1986)

Loan type	Number accepted	Number exceeding goal[a]	Percentage exceeding goal
Home, secured	1,599	632	40
Home, unsecured	367	34	9
Business, secured	771	338	44
Business, unsecured	73	19	26
Total	**2,810**	**1,023**	36

[a]SBA-computed total.

Because of concerns within SBA as to whether "dead-time" should be included in determining whether SBA met its 60-day goal, we randomly sampled 220 West Virginia disaster loan applications and included "dead-time" in our analysis. We found that SBA exceeded its 60-day goal 40 percent of the time. Table 5.2 shows the results of our sample of the percentage of loan applications by loan type that exceeded the 60-day goal when "dead-time" was included.

Table 5.2: West Virginia Sample Cases Exceeding the 60-Day Goal, Including "Dead-Time"

Loan type	Number sampled	Number exceeding goal	Percentage exceeding goal
Home, secured	39	18	46
Home, unsecured	43[a]	7	16
Business, secured	99	49	49
Business, unsecured	38	13	34
GAO-computed total	**219**	**87**	40

[a]Although we sampled 44 loan files, sufficient data were available in the files to compute the processing time for only 43.

Since excluding "dead-time" does not show the total time taken from when applicants go to a disaster application center until they receive their first SBA loan disbursement, we analyzed the complete processing time for the 220 sample cases. This analysis shows that average processing times for the four loan types ranged from 128 to 192 days and that much time was attributable to the applicants. The time attributable to the applicants includes, but is not limited to, the periods from (1) registration at the disaster application center to SBA's acceptance of the application and (2) SBA's mailing of the closing documents to SBA's receipt of the closing documents back from the applicant. Table 5.3 shows the results of our analysis of the time from registration at the application center to the time of first loan disbursement for each of the four types of loans.

Table 5.3: Average Times From Disaster Application Center Registration to First Loan Disbursement, Including "Dead-Time," Showing Periods Applicable to SBA and the Applicants

	(in days)				
Loan type	Registered at disaster application center to application accepted (dead-time)	Application accepted to closing documents mailed	Closing documents mailed to closing documents received (dead-time)	Closing documents received to first disbursement	Total time
Home, secured	30	69	78	−1[a]	164
Home, unsecured	32	53	24	15	128
Business, secured	40	88	44	8	192
Business, unsecured	41	66	46	6	160

[a]Atlanta processed the first disbursement based on oral information from SBA's Clarksburg field office in some instances. Because we used the date the Atlanta office received the documents, a negative number results.

Untimely Submissions, Incomplete Applications, and Heavy Workload Delayed Loan Processing

Three factors hindered SBA's ability to process loan applications from West Virginia. First, SBA received nearly one-half of the applications in the last 2 weeks of the filing period. Second, many applications were incomplete when SBA received them. Third, SBA's Atlanta office already had a large backlog of applications from earlier disasters when the West Virginia disaster occurred. The occurrence of other disasters at about the same time or shortly thereafter added to this problem.

Untimely Submission of Applications

Atlanta office officials said that loan processing for West Virginia had a slow start because victims did not submit loan applications in a timely manner. By January 3 (nearly the end of the original application filing deadline of January 6), 1,297 applications had been submitted—only 57 percent of the total 2,292 applications submitted as of January 20 (the extended filing deadline). It appears that the surge in application submissions toward the end of the filing period created an uneven workload that delayed processing West Virginia applications.

Incomplete Applications

In addition to the late filing, many of the applications submitted by West Virginia flood victims were incomplete. An Atlanta office official said that incomplete applications increased processing time because SBA suspended processing until the victims provided the necessary data.

Of the 220 applications in our random sample, 194 (88 percent) were incomplete when accepted. Based on our statistical analysis of this sample, a 90-percent probability exists that between 2,374 and 2,582 (between 84 and 92 percent) of the 2,810 applications that SBA had accepted as of our sample date were incomplete which delayed loan processing.

Heavy Workload

An Atlanta office official said that an inordinately heavy workload also adversely affected SBA's ability to process West Virginia applications. From early September 1985 through early August 1986, the Atlanta office processed 17,360 disaster loan applications. SBA data show that at the time of the West Virginia disaster declaration (November 7, 1985), the Atlanta office had an application backlog of 4,408 loan applications from 14 disasters which occurred prior to the West Virginia disaster. Further, applications from five other disasters that occurred at the same time or shortly after the West Virginia disaster increased the Atlanta

office's workload by 3,903 more applications. Thus, the workload resulting from these disasters contributed to the delays in processing West Virginia applications.

SBA's Response to the November 1985 Disaster

The Atlanta office significantly increased its staff and spent about $1 million in response to the West Virginia disaster declaration. At the time of the West Virginia disaster declaration, the Atlanta office staff totaled 196. To respond to the West Virginia flood and other 1985 disasters, the office increased its staff to 383, or about 95 percent, by mid-December 1985. The number of staff devoted to West Virginia loan processing averaged 72.

In addition to temporary staff increases, SBA authorized overtime, including holiday work, to respond to the workload. According to SBA data, staff processing West Virginia applications worked 11,886 hours of overtime and 514 holiday hours during the period from November 11, 1985, through August 8, 1986. An SBA official said that the staff worked 10-hour days and in many cases worked 7-day weeks.

SBA spent about $985,000 to respond to the West Virginia flood between November 11, 1985, and August 8, 1986. Personnel costs, including overtime and holiday pay, were about $529,000. Travel costs were about $403,000, and other costs were about $53,000.

Program Modifications to Reduce Processing Time

In response to application processing problems that became apparent during the West Virginia flood and other recent disasters, SBA's area offices tested four program modifications that could reduce loan-processing time in the future. The four modifications were (1) application preparation workshops, (2) team loss verification, (3) computerized loss verification, and (4) field loan-closing assistance.

Application Preparation Workshops

One problem in processing loan applications is obtaining timely, complete loan request packages from applicants. In West Virginia, for example, some applicants were not able to complete loan application forms without assistance. After the disaster application centers closed, however, little on-site technical assistance was available. Also, supporting documentation, such as income tax returns, was destroyed during the disaster, and copies were not readily available.

To obtain timely, complete applications, SBA held application preparation workshops in West Virginia between November 1985 and January 1986. Because few victims initially attended these workshops, SBA telephoned all victims who had obtained an application and encouraged them to attend. SBA's Atlanta officials said that the telephone canvassing increased workshop participation.

The telephone canvassing has increased workshop attendance for post-1985 West Virginia disasters and also increased the percentage of applications received during the first weeks of the filing period, according to an Atlanta office official. This official said further that screening applications in the field after the workshops has increased the percentage of complete applications received. Table 5.4 compares the time frame for applications accepted for West Virginia with that for three post-West Virginia disasters. Generally, this table shows that the post-1985 West Virginia disaster victims submitted applications earlier in the filing period than 1985 West Virginia applicants.

Table 5.4: Comparison of Applications Accepted by the Filing Deadlines for 1985 West Virginia and Selected Post-1985 West Virginia Disasters

	Percentage of applications accepted weekly						Total number
Disaster location	First	Second	Third	Fourth	Fifth	Balance	accepted
West Virginia	0.3	13.2	8.6	9.3	8.3	59.6	2,292[a]
Wisconsin	10.0	15.4	13.0	12.7	7.3	41.5	890
Michigan	6.9	17.7	24.5	11.9	9.8	29.1	2,277
Illinois	3.8	4.7	11.8	17.6	16.8	45.2	1,521

[a]As of the January 20, 1986, extended filing deadline.
Source: SBA.

Team Property-Loss Verification

SBA is also testing a new property-loss verification procedure to reduce processing time. SBA used the single-person concept in West Virginia to verify the property loss indicated, according to an Atlanta office official. SBA has since tested a team concept of loss verification (where the verification and documentation duties previously handled by one person are divided among a team to match the skills and abilities of the members) in Pennsylvania and Ohio disasters during July 1986. The Atlanta official said that under the single-person concept, about 14 to 20 days were required to complete a verification report, but under the team concept, the time has been reduced to about 3 or 4 days, and each verification report's cost has dropped from $75 to about $30.

Computerized Property-Loss Verification

Computer-assisted property-loss verification was a third test practice identified. Loss verification requires the calculation of verified losses based on a standard SBA price list plus a local cost factor, according to an Atlanta office official. This official said that under the computer-assisted verification approach, the costs of all items contained in the price list and the local adjustments would be entered into computers for performing numerous calculations involving price extension and costs summarization. Construction analysts currently perform these functions manually. An SBA headquarters official said that computer-assisted verification could reduce processing time.

Field Loan-Closing Assistance

Providing field assistance to help applicants meet closing requirements was the fourth program modification identified. SBA expected delays in receiving loan-closing documents from West Virginia applicants, according to an Atlanta SBA official. SBA, therefore, sent staff to various locations in the disaster area for 1 to 3 days at a time. The visits, however, were not effective. SBA telephoned applicants with unreturned closing documents, provided assistance as requested, and encouraged applicants to return the documents, but these efforts also proved ineffective in generating applicant response. Therefore, in May 1986, the Atlanta office increased the number of consecutive days the field staff spent at each location and had the staff visit some applicants in their homes.

These intensified efforts seemed effective. When SBA initiated them, it had disbursed only about $9 million, but during the 2 months that followed, it disbursed over $29 million. According to an Atlanta office official, as a result of the West Virginia experience, SBA will mail copies of loan-closing documents to applicants and the originals to an SBA field loan-closing office. Applicants will be asked to visit the field office, where SBA will help them satisfy loan-closing requirements. SBA headquarters and Atlanta officials said that SBA's experience to date has shown that loan-closing assistance can be effective in accelerating disbursements.

Table 5.5 compares disbursements of West Virginia loans with disbursements for three later disasters with 1986 filing deadlines when SBA used some or all of the procedures relative to application workshops, team loss verification, and field loan-closing assistance.

Table 5.5: Comparison of Disbursements by the Filing Deadlines for West Virginia and Selected Subsequent Disasters

Disaster location	Percentage of approved funds disbursed
West Virginia[a]	0.5
Wisconsin	40.3
Michigan	23.8
Illinois	19.0

[a]The percentage disbursed 25 days after close of the normal 60-day filing period.
Source: SBA.

As of August 1987, an SBA official said that the application preparation workshops and the field loan-closing assistance had been implemented nationwide. The team property-loss verification procedure was tested and found not to be as helpful as the computerized loss-verification procedure, which is being modified for future nationwide implementation.

Conclusions

SBA did not meet its goal of processing 90 percent of the applications within 60 days after accepting them. SBA processed about 60 percent of the applications within 60 days according to the results of our random sample analysis, which included "dead-time" (time SBA suspended processing awaiting data from the applicant). Atlanta office reports, which exclude "dead-time," indicate that SBA processed about 64 percent within 60 days.

Factors contributing to SBA's not achieving its goal were that (1) many victims applied late in the application period, (2) many victims filed incomplete applications, (3) SBA had a large backlog of applications when the West Virginia disaster occurred, (4) additional disasters at or near the time of the West Virginia disaster intensified SBA's problems, and (5) the applicants were slow to return completed closing documents.

SBA has recently tested and is implementing revised loan-processing procedures. It appears that these procedures may reduce processing time and thus the time required for applicants to receive loan proceeds. The post-1985 West Virginia disasters, however, generally involved fewer loan applications than the 1985 West Virginia flood. Consequently, the potential effectiveness of these procedures in large disasters had not been fully demonstrated at the conclusion of our review.

National Flood Insurance Program Met Its Claims-Processing Goal

FEMA's Federal Insurance Administration paid about $24 million to a total of about 1,400 victims of the November 1985 flood in West Virginia. All communities affected by the flood participated in the National Flood Insurance Program. The Administration is considering revised criteria for flood policy rates to encourage participating communities to take flood mitigation actions.

Purpose and Functions of the Flood Insurance Program

The National Flood Insurance Program was established so flood victims would not have to turn to federal and state governments for disaster assistance. Under the National Flood Insurance Act of 1968, property owners in flood-prone areas are eligible to purchase federal insurance if their community joins the program and adopts and enforces adequate flood plain management regulations. Flood plain management includes building placement, elevation, and construction standards that are designed to protect lives and property from future floods. The program's objectives include

- making flood insurance available nationwide,
- identifying the nation's flood-prone areas,
- promoting land-use controls to minimize flood loss and to guide development away from flood-prone areas, and
- reducing federal disaster relief expenditures.

In discharging the program's insurance functions, the Administration sets insurance rates; develops an insurance manual for agents' use; underwrites policies; adjusts insurance claims; and maintains liaisons with the insurance industry, trade associations, and mortgage lenders. With regard to the program's other activities, the Administration (1) identifies flood-prone areas, (2) provides communities with flood maps so they can enter the program, (3) establishes flood plain management criteria, (4) oversees participating communities' adoption of necessary ordinances and enforcement of required flood plain management regulations, and (5) oversees continued community eligibility for flood insurance resulting from the communities' compliance with FEMA's criteria.

West Virginia's Participation in the Flood Insurance Program

As of September 1985, 265 West Virginia communities were participating in the program. Only two communities were suspended from the program, both for failing to adopt compliant flood plain regulations. Neither was involved in the November 1985 flood.

In the 29 counties declared disasters in the November 1985 flood, a total of 2,704 policies had an insurance value of $79.6 million as of September 1985. Flood insurance policies in West Virginia at that time totaled 12,500 and had an insurance value of $425.9 million.

The Federal Insurance Administration primarily uses two methods to increase program participation. One method is to hold workshops for (1) insurance agents, to teach them the basic skills necessary to write flood insurance policies correctly and (2) mortgage lenders, to provide them with information to determine when flood insurance is required and what amount must be bought. Five agent workshops were held in West Virginia in 1984, and three were held in 1985. One lender workshop was held in West Virginia in 1985. The second method the Administration uses to publicize the program is conducting seasonal campaigns. The seasonal campaign efforts include sending public awareness materials to state insurance commissioners, governors, senators, representatives, television and radio stations, newspapers, and emergency managers. The Administration conducted four seasonal campaigns in West Virginia in 1984-85. The Administration also visited and telephoned insurance agencies and visited state and local community officials to promote the program.

Federal Insurance Administration's Response to November 1985 Flood

The Administration opened a field office in Bridgeport, West Virginia, to process flood claims on November 7, 1985—the same date the presidential declaration was issued. Eighty-six adjusters were assigned to inspect claimants' properties and to prepare the necessary paperwork to settle claims. The Administration also supported the disaster application centers by providing information and assistance to program policyholders and expediting the delivery of claim payments.

The Administration's goal is to close 90 percent of claims within 90 days of establishing its field office. In West Virginia, it closed 90.4 percent (1,356) of the claims filed by February 4, 1986 (89 days after the field office opened). In total, the Administration received 1,498 claims, paid 1,364 of them, and closed 134 without payment. Payments were about $24 million, an average of about $17,600 per claim.

Administration's Incentive to Reduce Flood Losses

The Administration is developing a concept to encourage communities, such as those in West Virginia, to improve their flood plain management practices. This approach, known as the Community Rating System, would base a community's flood insurance rate structure on the actions the community takes to reduce losses due to floods. Its goals are to (1) foster community actions that reduce the growing federal exposure to economic loss through insurance claim payments, tax write-offs, and disaster relief grants and loans, (2) minimize "unknowns" that may increase the aggregate amount of a community's potential flood damage, and (3) facilitate the accurate insurance rating of properties in the community.

The Administration has not completed the new rate structure criteria, but is considering the existence and quality of factors such as the following:

- building codes to meet the minimum building standards of nationally recognized building criteria;
- a permit system, including application and review, preconstruction elevation review, and building plans review;
- a system to provide on-site inspections during construction and to ensure that building officials have professional architectural and engineering expertise;
- a monitoring and control system to detect unauthorized alterations and construction; and
- a community's repetitive flood loss history.

The Administration would use these criteria to rate a community, and an individual's flood insurance premiums would be based on the community's rating. Thus, communities would be penalized or rewarded for their flood plain management practices by getting higher or lower flood insurance premiums for their residents.

The Administration has discussed this concept with insurance industry representatives and with local community officials. No definite plans or procedures have been decided. The Administration's schedule called for a plan to be completed in fiscal year 1987, a pilot program to be done in fiscal year 1988, and the concept to be implemented in fiscal year 1989.

Conclusions

The Federal Insurance Administration met its goal of closing 90 percent of the claims within 90 days. The Community Rating System could provide incentives to individuals and to communities to implement improved flood plain management practices.

Comments From the Federal Emergency Management Agency

Federal Emergency Management Agency
Washington, D.C. 20472
OCT 7 1987

Mr. J. Dexter Peach
Assistant Comptroller General
United States General Accounting Office
Washington, D.C. 20548

Dear Mr. Peach:

This responds to your letter of August 7, 1987, to Mr. John Thiede, Inspector General of the Federal Emergency Management Agency (FEMA) concerning the Agency's review of a General Accounting Office (GAO) draft report: DISASTER ASSISTANCE: Response to West Virginia's 1985 Flood Shows Need For Improvements (GAO/RCED-87-169). We have reviewed the draft report and have enclosed comments, both general and specific. The specific comments are keyed to the pagination of the draft report and they are followed by the general comments.

We appreciate having had the opportunity to review the subject draft report and hope that you will find our comments both constructive and helpful.

Sincerely,

Julius W. Becton, Jr.
Director

Enclosures

Enclosure 1

SPECIFIC RESPONSES AND/OR CORRECTIONS TO THE GAO DRAFT REPORT ENTITLED

Disaster Assistance: Response to West Virginia's 1985 Flood Shows Need For Improvements

Now on p. 19.

Page 21 - Paragraph 2: The FEMA requirements have been levied for two reasons. First, there is a need for national data on the significance and distribution of various hazards, the current level of civil emergency preparedness and State and local plans and priorities for addressing identified emergency management deficiencies. Such information is critical to support program management and allocate resources at all levels of government. It also provides baseline information required to surge critical capabilities in the event of a national security emergency.

Secondly, the Hazard Identification Capability Assessment/Multi-Year Development Plan (HICA/MYDP) process encourages jurisdictions to systematically review their existing capability to deal with relevant hazards and to prioritize and establish a coherent plan and time line for correcting identified deficiencies. Periodic assessments of capability and progress toward stated objectives is an integral part of program planning and management. HICA/MYDP provides a structure for such an assessment.

See comment 1.

It is our belief that, if an emergency management office cannot perform such basic planning and management functions, then there is a serious question as to the necessity for and propriety of providing Federal funding.

Now on pp. 19 and 20.

Page 21 - Paragraph 3 and 4: We would agree that the uncertainty of appropriations from year to year makes it impossible to project the availability of resources. However, the determination and documentation of what is needed and what resources are required are essential in the development of a valid budget request at any level of government. A multi-year approach is useful since many projects cannot be completed in a single year.

Recognizing that the data obtained from the Multi-Year Development Plan (MYDP) is less essential at the Federal level than at the State and local levels, beginning in FY 1988, FEMA will only require the submission of capability development project funding and resource data for the next full Federal fiscal year. In addition, FEMA is linking these MYDP projections to the Comprehensive Cooperative Agreement (CCA) planning process in order to further reduce duplication of effort by local and State governments.

See comment 1.

FEMA is continuing to review paperwork requirements necessitated by the MYDP process in order to endure that duplication is eliminated and that submissions are limited to those that are essential for accurate analysis and management.

Now on p 31.
See comment 2.

Page 37 - last paragraph: The statement, that "...the approval process may take even longer in the future because Congress will no longer allow FEMA to use disaster assistance employees in the regional offices.", should be clarified. If the approval process referred to covers initial basic project applications or those early supplemental project applications which are processed in the disaster field office, there should be no delay because disaster assistance employees will still be available for field office operations. With respect to processing of supplemental project applications in the regional offices, FEMA has been authorized to hire additional permanent full-time personnel who will be available to process such applications. Thus, it does not appear that the approval process should take any longer.

Now on p. 32.

Page 38 - Paragraph 2: The cost estimate for restoration of the intake structure in Kingwood was made on the basis of replacing it in its original location. During the course of preparing plans, water tests revealed that due to changes in the river bottom, the original depth of the intake could not be achieved and most importantly, the river hydraulics had changed and acid mine water now flowed at the site of the original intake. Based upon the results of these tests, the intake line had to be extended to the far shore of the river to unpolluted water and regarding of the river bottom had to be done to guarantee that the acid mine water did not mix with the fresh water. We would agree that the project was underestimated if the estimate had been prepared for the same work items.

See comment 3.
Now on p. 32.

Page 38 - Paragraph 3: The DSRs for the Town of Rowlesburg's sewerage system were not underestimated, rather conditions had been so radically altered that the original system could not be replaced. It is interesting to note that the original DSR discusses approximate locations and length. Later surveys completed as part of the preparation of plans and specifications revealed that some existing manholes were not 30 to 40 feet out in the river. Ultimately, the lines had to be relocated, property purchased and lift stations constructed where none existed prior to the disaster. For example, the river bottom is now so deep that a gravity system could no longer be used. The

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See comment 4.

See comment 5.
Now on p. 32.

See comment 6.
Now on pp. 33 and 34.

See comment 7.
Now on p. 42.

See comment 8
Now on p. 42.

report states quite correctly that little physical construction was being done during the period that supplemental approvals were being made. However, there was no correlation between the lack of work and the time for the approvals. Rather, detailed surveys for an entirely new design and the associated land acquisition were taking place.

Page 39 - Paragraph 2: Our later review indicates that, the DSR for storm drains in Albright was slightly overestimated. The need for the supplement was for the approval to repair/replace catch basins which had been omitted from the original DSR. They were omitted because the catch basins were covered over by debris and gravel at the time the DSRs were written. Delays in starting the work were due principally to obtaining rights of entry and removal of debris from recalcitrant landowners.

Changes in sidewalk width were made to correct an error by the original inspector. Fill was required to fill in basements of homes destroyed by the flood and to cover the storm drain at various locations.

Page 40 - Paragraph 4: Applicants expressed concern that they did not have funds to pay all bills prior to submitting final claims. Subsequent to the report the State has established a revolving fund to loan Public Assistance applicants the balance of their claim. Interest is 1 percent.

Page 53 - last paragraph: In mid-December 1985, FEMA's housing staff documented through reinspection and by checking with housing builders in Eastern West Virginia, that some of the FEMA established unit prices, while probably originally accurate, were now too low as a result of price increases.

The 1000 referenced reinspections included some new applicants; applicants who were withdrawn from the program because the housing inspector was not able to contact them and who later contacted the field office; and second inspections.

Page 54 - Paragraph 1: On the whole FEMA tends to believe that the inspections were largely accurate and that the unavoidable problem was price escalation due to excessive demand. We also question the appropriateness of sending out the 2,166 letters asking applicants if they received enough financial assistance. In retrospect, it probably would have been advisable to correct low unit prices and base supplementary payments on this, unless the case file revealed obvious errors, as some did.

Furthermore, some of the items omitted from the MR awards may have been approved for IFG assistance. The State may not have provided the IFG assistance at the time the reinspection questionnaire was received.

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Now on pp. 43 and 44.

Page 55 - 3rd Paragraph through Page 56: Estimates for mobile homes and pads needed were developed before the application/eligibility determination process was complete in order to save time. This is not the normal procedure.

It should be noted that we were aggressively searching for rental resources. The fundamental problem, however, was attempting to do this, and commit on pad construction requirements, in the middle of Disaster Application Center operations.

The other major factor, which contributed to our problem that was not predicted and which affected the overbuilding of pads, was the large number of eligible recipients of FEMA's housing program who withdrew and/or took care of their housing needs by either living with family or friends or by purchasing a mobile home on their own. That number who withdrew was 880, as documented in the penultimate paragraph on page 59. We built 327 pads which were not needed. (Interestingly enough, the figures show that had it not been for the withdrawals, we would have seriously underbuilt).

Now on p. 47.

FEMA's previous disaster experience in West Virginia has primarily been associated with the residents in the coal mining Appalachian Mountain areas of Southern and Southwestern West Virginia. Devastating floods hit this area on an average of once every five years. In a declared major disaster in that portion of West Virginia, the affected population all requested a FEMA mobile home. The vast majority of individuals affected by the West Virginia November 1985 floods were first time disaster victims. Rather than spend the winter in a FEMA mobile home, under "crowded" conditions encountered in a FEMA mobile home group site, many of these people solved their temporary housing needs through other means.

See comment 9.

About the only things that can be done to avoid this problem is to closely monitor the size of the requirement as time passed (the requirement was monitored, as previously explained; the missing ingredient was the time permitted to define that requirement), and incremental contracting and development. Both were done to a degree.

See comment 10.
Now on p. 62.

Page 81 - Line 3: After "underwriting policies;", please insert "adjusts insurance claims;".

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Enclosure 2

GENERAL RESPONSES AND/OR COMMENTS
TO THE GAO REPORT ENTITLED

Disaster Assistance: Response to West Virginis's
1985 Flood Shows Need For Improvements

General Comments on Chapter 2, Disaster Planning and
Disaster Warning Systems Need Improvement:

In general, the draft report findings seem to be fair and accurate with regard to civil defense programs or systems; however, it is recommended that the report recognize the responsibilities of State and local governments in the protection of the population and not place so much of the focus on a lack of Federal funding. A lack of funds does not excuse local and State governments from a responsibility to protect the public nor should the lack of Federal funding be seen as a real block to solving problems.

The findings in the report concerning deficiencies in emergency operations planning and preparedness certainly come as no surprise to FEMA. We have repeatedly called attention to the low and declining condition of the United States' civil defense capabilities and have tried to make the point that, if used properly, the Federal funding available to support emergency operations planning can provide a sound basis for a capability to cope with national security emergencies as well as with large-scale natural and technological disasters. This presupposes, however, that State and local governments will continue to provide adequate support for the day-to-day planning needs of their emergency services departments and agencies, i.e., police, fire, civil defense, public works, etc. For example, it appeared in the draft GAO report that the Emergency Broadcast System warning systems worked; however, public awareness and knowledge of what to do appears lacking, which means that the potential effectiveness of the system cannot be attained.

See comment 11.

President Reagan has reemphasized in National Security Decision Directive 259 that State and local governments have the primary responsibility for developing their capabilities for peacetime emergencies. State and local officials must understand that the Federal funding available is barely adequate to provide for the necessary planning to support coordinative mechanisms that would make it possible to marshal and channel existing emergency response capabilities to deal with very large-scale emergencies.

See comment 12.

General Comments on Chapter 3
Public Assistance Programs Encountered Problems:

Chapter 3 has been written in a manner which leaves the impression that procedures followed by FEMA with respect to review of applications and final payments were too restrictive. There was no acknowledgement of the fact that the West Virginia disaster was very complex and occurred during a period when FEMA's limited resources were taxed to the breaking point by the declaration of 15 major disasters during September through November 1985. The number of DSRs processed in these 15 disasters totaled over 15,000 and eligible damage exceeded $275 million.

FEMA acknowledges that processing of project applications in West Virginia took longer than FEMA would like. For a number of years FEMA has been proposing an improvement which we believe would result in a significant reduction in time required for project application processing and would also provide increased funding to applicants much sooner. However, that improvement requires a legislative change to allow payment for individual small projects based on Federal estimates rather than actual eligible costs. Such a change would have allowed FEMA to immediately make final payment on over 2150 individual projects in the West Virginia disaster. Although this would be a significant improvement, it is not currently included in HR 2707 or S-1453 which would amend the Disaster Relief Act of 1974, PL 93-288.

See comment 13.

General Comments on Chapter 4, FEMA's Individual Assistance
Programs Experienced Difficulties:

Prior to West Virginia, FEMA constructed thousands of mobile home pads without experiencing problems of this magnitude. What separated this operation from the others was the pressure put on the staff by the impending winter and the countless groups demanding that FEMA "do something." Normally, mobile home setups proceed at a much more deliberate pace, which allows adjustments to be made as the operation progresses. Accordingly, we believe that the mobile home experience in West Virginia was a largely uncontrollable aberration and should be treated as such.

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The following are GAO's comments on the FEMA Director's letter dated October 7, 1987.

GAO Comments

1. This FEMA comment responds to a WVOES statement that local officials believe that there is too much paperwork required by FEMA's multi-year planning process. While we have no comment on FEMA's opinion that jurisdictions should be able to perform basic emergency planning and management functions if they are to receive federal funding, we have added a sentence to chapter 2 noting that FEMA is trying to minimize paperwork requirements involved in the multi-year development plan.

2. As we noted in our draft report, it was FEMA, and not GAO, that said that the process would take longer. In response to FEMA's comments, we have clarified FEMA's earlier statement contained on page 37 of the draft report regarding the loss of disaster assistance employees. FEMA stated that it now believes that the loss of these employees in the regional offices should not delay the processing of supplemental project applications because the Agency has been authorized to hire additional permanent full-time personnel to handle such applications.

3. As stated on page 38 of our draft report, the initial cost estimate for the Rowlesburg sewerage system project was understated. FEMA's comments acknowledge that the initial damage survey report did not identify the full extent of the required repairs. Consequently, as our draft report stated, supplemental damage survey reports were prepared which increased the project's cost by $333,150—a 389-percent increase.

4. We have added a sentence to chapter 3 to include FEMA's comment regarding the work that was being performed on the Rowlesburg project.

5. We agree with FEMA's comment that the damage survey report's estimates for storm drains in Albright were overestimated. FEMA, however, also states that the original scope of work omitted other items that needed repair. Since the initial scope of work was incomplete and the cost of the additional items more than offset the overstated amounts for items contained in the initial damage survey report, we concluded that the cost of the project, as a whole, was initially understated.

6. We have added a footnote to chapter 3 describing the state's new revolving fund for public assistance applicants in response to FEMA's comments.

7. We have added a footnote to chapter 4 to indicate that a more recent FEMA review of the minimal repair program's operations indicates that the 1,000 inspections that a FEMA official described as "reinspections" included some new applications; applications which were withdrawn from the program because the housing inspector was unable to contact the applicants, who later contacted the field office; and second inspections.

8. We have made revisions to reflect FEMA's belief that escalation in repair costs was caused by excessive demand.

9. We have added a paragraph to chapter 4 to include FEMA's statement on how overbuilding of mobile home sites can be avoided.

10. We have expanded our description of the role of the Federal Insurance Administration in chapter 6 to include the adjustment of insurance claims, as FEMA suggested.

11. We agree with FEMA that the state and local governments have the primary responsibility for developing their capabilities for peacetime emergencies. Our report, however, discusses the special problems caused by a lack of federal support for emergency operations planning and preparedness as highlighted in areas with inadequate state and/or local resources. Such areas would include the portions of West Virginia devastated by the November 1985 flood.

12. We have added sentences to chapter 3 to acknowledge FEMA's heavy workload at the time of the West Virginia disaster in response to FEMA's comment.

13. We have added a paragraph to chapter 4 to reflect FEMA's comment that the mobile home operations in West Virginia were not typical of its normal mobile home operations. We acknowledge the difficulties FEMA faced in West Virginia and believe FEMA's expanded mobile home instructions should help FEMA avoid similar problems in future disasters.

Comments From the Department of the Army

DEPARTMENT OF THE ARMY
OFFICE OF THE ASSISTANT SECRETARY
WASHINGTON, DC 20310-0103

14 OCT 1987

Mr. J. Dexter Peach
Assistant Comptroller General,
Resources, Community and
Economic Development Division
U. S. General Accounting Office
Washington, D. C. 20548

Dear Mr. Peach:

This is the Department of Defense (DoD) response to the General Accounting Office (GAO) draft report, "DISASTER ASSISTANCE: Response to West Virginia's 1985 Flood Shows Need for Improvements" dated, August 10, 1987, (GAO Code 068245), OSD Case 7377. The DoD generally agrees with the draft report.

Specific responses to the relevant findings and recommendations contained in the draft report are enclosed. The DoD appreciates the opportunity to comment on the draft report.

Sincerely,

Steven Dila, Acting
for John S. Doyle, Jr.
Acting Assistant Secretary of the Army
(Civil Works)

Enclosure

DEPARTMENT OF DEFENSE COMMENTS ON
GAO DRAFT REPORT - DATED AUGUST 10, 1987
(GAO CODE 068245), OSD CASE 7377

"DISASTER ASSISTANCE: RESPONSE TO WEST VIRGINIA'S 1985 FLOOD SHOWS NEED FOR IMPROVEMENTS"

* * * * * *

FINDINGS

FINDING A: Federal Agency Responses To the November 1985 West Virginia Flood. The GAO reported that in November 1985, serious flooding impacted West Virginia, prompting the Federal Government to respond with many types of assistance. According to the GAO, the primary Federal responsibility for responding to such disasters lies with the Federal Emergency Management Agency (FEMA). According to the GAO, under the Disaster Relief Act of 1974, the FEMA plays a key role in advising the President prior to the declaration of a major disaster and then in coordinating the subsequent Federal assistance. The GAO found that the FEMA responded promptly to the request for a disaster declaration in West Virginia and began recovery operations quickly. In addition, the GAO found that several other Federal agencies were responsible for providing assistance to West Virginia. The GAO observed that among those other agencies having responsibility were the Soil Conservation Service (SCS) and the Army Corps of Engineers (COE). The GAO reported that these two agencies provided assistance with debris removal and stream restoration. The GAO found that the Federal Government provided about $285 million in assistance in response to the West Virginia flood, including about $2.8 million provided by the COE. (p. 1, pp. 9-16/GAO Draft Report)

Now on p 1 and pp. 10 to 16.

DOD RESPONSE: Concur.

FINDING B: Timeliness Of Direct Federal Assistance To West Virginia. The GAO reported that both the SCS and the COE provided direct Federal assistance to West Virginia, mostly in the form of debris removal and stream restoration. The GAO found that the SCS began work almost immediately after the disaster, having determined that the conditions called for immediate Federal action. The GAO further found, however, that the COE did not start debris removal until two weeks after the disaster was declared. According to the GAO, this delay occurred because, at the time of the November 1985 flood, the COE did not have the authority to provide debris removal assistance until requested to do so by the FEMA. The GAO concluded that since the state did not request assistance from the FEMA for help in debris removal until nearly two weeks after the President declared a major disaster,

Now on pp. 2 to 4, p. 28 and pp. 35 to 37.

the COE had to delay its assistance until it was specifically requested by the FEMA. The GAO pointed out that once the state request was received, however, both the FEMA and the COE responded quickly with assistance. The GAO noted that the COE did have authority under Public Law 84-99 to immediately perform limited assistance work, and three such projects were carried out. In addition, the GAO observed that, in November 1986, Public Law 99-662 expanded the authority of the COE to respond to disasters without waiting for a FEMA request. The GAO reported that, according to COE officials, the COE plans to coordinate the detailed guidance on this new authority with the FEMA by December 1987. (pp. 2-3, p. 33, pp. 42-44/GAO Draft Report)

DOD RESPONSE: Concur. While the facts as presented by the GAO are generally correct, the fact that the Corps of Engineers and the Soil Conservation Service responded to the emergency with equal promptitude is obscured. The Corps of Engineers began emergency work the day following the flooding event, using its authority under Public Law 84-99. The Soil Conservation Service efforts immediately following the flood were initiated under its own emergency authorities and were limited to removal of debris from stream channels and only for the immediate protection of life and property. The SCS does not have authority to perform general debris removal following a flood but, rather, must await tasking by the FEMA as does the Corps. In Presidentially declared disasters, it is incumbent upon the State to request assistance in areas it is unable to respond. The State did not make its request to the FEMA for debris removal until approximately two weeks after the President's declaration. Upon receipt of the state's request, the FEMA promptly tasked the Corps of Engineers with general debris removal and contractors were working onsite the day following tasking.

The references to the new authority given the Corps of Engineers under Public Law 99-662 are not applicable to the events of the West Virginia flood. If reference to this new authority is retained, it should be revised to remove the implication that, with that authority, the Corps would have initiated general debris clearance sooner. Public Law 99-662 provides limited authority for emergency work which is essential for the preservation of life and improved property. This does not, however, apply to general debris clearance.

FINDING C: COE Projects For Debris Removal. The GAO reported that, when the FEMA approved the West Virginia request for assistance, it authorized the COE to incur costs of up to $10 million on debris removal activities. The GAO found that the COE awarded a total of 46 contracts in connection with the West Virginia assistance, involving a total cost of $2.6 million, with an additional administrative expense of about $400,000. The GAO also found, however, that although all 46 contracts were completed as of July 1986, the COE did not advise the FEMA until early January 1987, that it would not need about $7 million of the

$10 million authorized by the FEMA. The GAO observed that the FEMA did not monitor the need for the funds by the COE. The GAO pointed out that, although the FEMA did not give the funds to the COE, they were obligated for use by the COE, and thus not available for other FEMA uses between July 1986 and January 1987. The GAO reported that FEMA officials recognized the need to more closely monitor Federal Agency need for FEMA funds. (p. 3, p. 33, pp. 43-44/GAO Draft Report)

Now on p. 4, p. 28, and pp. 36 and 37.

DOD RESPONSE: Concur.

RECOMMENDATIONS

RECOMMENDATION 1: The GAO recommended that the Director, FEMA, in conjunction with the states, determine whether intrastate regional emergency operations planning is feasible and potentially more effective than the current concept of having each county develop its own plan. (p. 4, p. 32/GAO Draft Report)

Now on pp. 4 and 27.

DOD RESPONSE: Concur.

RECOMMENDATION 2: The GAO recommended that the Secretary of Commerce direct the Assistant Administrator for Weather Services to develop alternative actions, such as cost sharing, to maintain the integrated flood observing and warning system if counties are unable to fund the needed maintenance. (p. 4, p. 32/GAO Draft Report)

Now on pp. 4 and 27.

DOD RESPONSE: Concur.

RECOMMENDATION 3: The GAO recommended that the Director, FEMA, pursue development of standards for how long the public assistance application process should take to better enable the FEMA to identify oportunities to improve the timeliness of the process. (p. 4, p. 45/GAO Draft Report)

Now on pp. 4 and 37.

DOD RESPONSE: Concur.

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Comments From the Department of Commerce

UNITED STATES DEPARTMENT OF COMMERCE
The Assistant Secretary for Administration
Washington, D C 20230

SEP 21 1987

Mr. J. Dexter Peach
Assistant Comptroller General
Resources, Community, and
  Economic Development Division
United States General
  Accounting Office
Washington, D.C. 20548

Dear Mr. Peach:

This is in reply to GAO's letter of August 7, 1987 requesting comments on the draft report entitled "Disaster Assistance: Response to West Virginia's 1985 Flood Shows Need for Improvements."

We have reviewed the enclosed comments of the Assistant Secretary for Oceans and Atmosphere and believe they are responsive to the matters discussed in the report.

Sincerely,

Kay Below

Kay Below
Assistant Secretary
  for Administration

Enclosure

UNITED STATES DEPARTMENT OF COMMERCE
The Assistant Secretary
National Oceanic and Atmospheric Administration
Washington, D.C. 20230

SEP 21 1987

Mr. J. Dexter Peach
Assistant Comptroller General
General Accounting Office
Washington, D.C. 20548

Dear Mr. Peach:

Thank you for your letter to Acting Secretary Clarence Brown regarding the review of your draft report on DISASTER ASSISTANCE: Response to West Virginia's 1985 Flood Shows Need for Improvements. My comments are restricted to those portions of the report dealing with disaster warning systems.

The draft report implies, especially in the summary, that the Integrated Flood Observation and Warning System (IFLOWS) did not perform well in the 1985 flood. In fact, IFLOWS was not yet operational in the flood disaster area in West Virginia at that time. The final report should clarify that IFLOWS began operations subsequent to the flood.

The draft report raised two issues pertaining to the future operation of IFLOWS in West Virginia. The first concern is the counties' ability to use the IFLOWS computer equipment effectively, and the second concern is the National Weather Service (NWS) maintenance policy.

The West Virginia Office of Emergency Services (WVOES), in cooperation with the NWS and the West Virginia University Cooperative Extension Service, conducted an IFLOWS workshop for county emergency services directors on August 21, 1987. Also material is being prepared to establish separate classes for flood warning coordinators and for IFLOWS computer operators. We are hopeful that this type of continuing training together with equipment replacement and upgrades described below, will, over time, improve the counties' ability to effectively use IFLOWS equipment.

The present IFLOWS maintenance policy has not changed since the inception of the program in 1979. Under the terms of the memorandum of understanding (MOU) between NWS and participating IFLOWS states, NWS provides technical support and funds for the initial capital and installation costs for equipment, major equipment replacement or upgrading in coming years, and improved centralized forecast and analysis activities. Once a system is determined to be operational, the states and counties assume the responsibility and cost of maintaining all the equipment which

THE DEPUTY ADMINISTRATOR

they have purchased, including equipment which may have been purchased directly by NWS to support the state/county portion of IFLOWS (see enclosure I for an expanded description of this policy).

As explained in enclosure I, the NWS provided funding for all state and county maintenance during the developmental phase of IFLOWS (1980-1986). In 1985 and 1986, Congress approved one-time money to support the expansion of IFLOWS in West Virginia and other participating states. The NWS continues to maintain all IFLOWS equipment in its offices, as well as various IFLOWS communication links between the NWS and the IFLOWS network.

As your draft report mentions, there may be some counties which may not be willing or able to pay for the required maintenance and, as a result, system effectiveness may suffer. NWS recognizes the limitations of county budgets and has an ongoing effort to improve the maintainability of IFLOWS equipment. One of the major efforts now under way is to install solar panels on rain gages to extend battery life thereby reducing maintenance calls. NWS is hopeful that the effect of equipment upgrades and training programs will help relieve the counties' budgetary concerns.

We expect there may still be a few counties, which are strategically located for effectively monitoring the statewide flood potential, which may not be willing or able to pay for IFLOWS maintenance. NWS will, in cooperation with the state, evaluate on a case-by-case basis, the merit and level of support required to provide basin-wide flood observing and warning continuity. The NWS will then negotiate with the state the appropriate level of funding each will contribute.

For your reference, I have included the operational status of the West Virginia IFLOWS program as of July 30, 1987 (Enclosure II).

Sincerely,

J. Curtis Mack, II

Enclosures

Enclosure I

IFLOWS MAINTENANCE POLICY

Under the terms of the memoranda of understanding (MOU) between National Weather Service (NWS) and participating IFLOWS states, NWS provides technical support and funds for the initial capital and installation costs for equipment, for major equipment replacement or upgrading in coming years, and for improved, centralized forecast and analysis activities. Once a system is determined to be operational, the states assume the responsibility and cost of maintaining all the equipment which they have purchased, including equipment which may have been purchased directly by NWS to support the state/county portion of IFLOWS.

At the request of participating states, NWS agreed to provide temporary funding for maintenance and operation until the system was installed and malfunctions associated with establishing the system were corrected. In mid-1984, a January 1, 1987, date was agreed upon as the time by which systems could be supported by the states and counties and was established as a cutoff date for maintenance funding by NWS. This was established with the early participants (KY, WV, VA, PA), giving the states and NWS 2 to 3 years to jointly identify, report, and solve IFLOWS operational problems associated with system implementation and operation.

During this period, participating states and NWS cooperatively developed enhancements to reduce maintenance costs. Among these enhancements funded by NWS were the development of computer software to provide diagnostic information and the enhancement of computer hardware to provide a more efficient computer work station. Also, solar panels to reduce rain gage maintenance costs were delivered in June 1987. New projects that are supported with NWS base funds will include arrangements for providing maintenance of any equipment until that particular system being implemented becomes operational. This is provided that the grantor has established and maintains a reasonable timetable for completing the installation.

In 1985 and 1986, Congress approved an amendment to a continuing resolution which earmarked additional funds to be used specifically for expansion of IFLOWS in the areas hardest hit by the devastating floods of November 4 and 5, 1985. The funds provided for this emergency action were one-time monies which are to be used exclusively to purchase and install IFLOWS equipment. The funding required for maintenance is expected to be provided by the state or local communities. While NWS intends to continue its policy of funding for emergency maintenance situations as new areas are introduced to IFLOWS, it has no funding available for long-term maintenance of these IFLOWS systems. NWS will provide funding for hardware and software upgrades, as necessary, and

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expects the states to provide information regarding their priority needs in these areas. Funds for these purposes will only be distributed when NWS determines that an upgrade to an existing piece of equipment is reasonable and necessary. Funds will not be provided for routine maintenance of existing equipment or repairs for individual units. Consideration for major equipment replacement will be handled through a proposal to the Configuration Management Committee, who will make awards based on priority needs and availability of funds.

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Enclosure II

IFLOWS OPERATIONAL STATUS IN WEST VIRGINIA

July 30, 1987

In the IFLOWS program, operational means the counties are receiving data from a network of radio reporting rain gages and also have a voice communications system in place which can be used to communicate with neighboring counties, the state Emergency Operations Center (EOC), or National Weather Service (NWS) offices. Of 15 original counties, 10 are fully operational. They are Cabell, Fayette, Greenbrier, Jackson, Logan, Mason, Mingo, Putnam, Raleigh, and Wayne.

All equipment is installed in Boone, McDowell, and Wyoming Counties, which will become operational when the West Virginia Emergency Medical Services (EMS) completes installation work at its Kopperston microwave site. This work is expected to be completed no later than mid-September 1987.

All equipment is installed in Pocahontas County, but development of a radio relay site is necessary to provide a tie-in with other counties. Kanawha County had been fully operational but recently has relocated to a site which will require additional radio equipment. The necessary equipment for Pocahontas and Kanawha Counties has been identified, and the procurement process has begun.

The expansion counties which are being supported by special congressional funds are in various stages of implementation. A partial shipment of the rain gages for these counties has been made to the EOC, with final delivery expected by August 1, 1987. Of the approximately 200 new gage sites for the expansion counties, 38 landowner agreements have been obtained, and another 20 are near approval. The computers for the expansion counties have been shipped to county EOC's and are expected to be installed beginning in August. Remaining communication equipment, such as radio transceivers and antennas, have been identified but not yet purchased. These counties are: Barbour, Berkeley, Braxton, Calhoun, Doddridge, Gilmer, Grant, Hampshire, Hardy, Harrison, Jefferson, Lewis, Marion, Marshall, Mineral, Nicholas, Monongalia, Morgan, Ohio, Pendleton, Preston, Randolph, Taylor, Tucker, Tyler, Upshur, and Webster. Lincoln and Mercer Counties had declined to participate in IFLOWS several years ago but have recently reversed their decisions, and their status is identical to the 27 expansion counties mentioned above. Summers and Monroe Counties have been approached, but both have declined participation for lack of maintenance funds. It is possible, however, that the volunteer fire organization in Summers County will fund the project and negotiations are pending.

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Comments From the Office of the Governor of West Virginia

STATE OF WEST VIRGINIA
OFFICE OF THE GOVERNOR
CHARLESTON 25305

ARCH A MOORE, JR
GOVERNOR

September 4, 1987

Mr. J. Dexter Peach
Assistant Comptroller General
Resources, Community and Economic
Development Division
United States General Accounting Office
Washington, D. C. 20548

Dear Mr. Peach:

On behalf of the State of West Virginia, I wish to make the following comments concerning the draft report which you sent to me on DISASTER ASSISTANCE: Response to West Virginia's 1985 Flood Shows Need for Improvements.

I realize that there are no recommendations contained in the draft report which are addressed to our State's activities during this tragic flood disaster. However, I do believe that clarifications must be made regarding some of the comments in this document. If not, then gross misunderstandings and misrepresentations could occur.

Now on pp. 4 and 33
See comments 1 and 2.

On Page 3 and Page 40, there are statements relating to supposed delays in the public assistance payment process because of review and approval being required by the Governor's Office. A small selection of payment requests - 40 out of more than 1,006 - from only two of the twenty-nine flood disaster designated counties were considered.

See comments 1 and 2.

Based upon this minute sample, the draft report states that these payments were not made as fast as in previous disasters in West Virginia. There is no mention made that this one thousand year flood has had total expenditures of hundreds of millions of dollars as opposed to the greatest previous disaster expenditure of approximately $20 million.

See comment 3. Now on p 33.

With the magnitude of this flood, I decided that the normal State government payment process was just not good enough. Therefore, I took action to expedite the public assistance payments and also give them closer attention. Even your draft report admits on Page 40 that the expedited process was faster.

See comment 4

In addition, your document did not take into consideration other legitimate reasons for this supposedly slower process, such as:

Now on p. 33.

1. If further research had been done on the slowest payment of 55 days mentioned on Page 40 of your draft report, you would have found that the applicant made a mistake on the Request for Payment form which forced the Public Assistance Office to return the request to the applicant. In addition, the applicant failed to immediately correct the mistake and return it to the Public Assistance Office.

2. In many cases, there was initially no signature on the public assistance form and it had to be sent back so that the proper local official could sign it.

3. On some forms, the federal government payment percentage calculation was incorrect which necessitated the return of the form for the figures to be re-computed so that the appropriate expenditure of federal funds was made.

4. Numerous public assistance forms contained project figures which did not add up to the correct total. Again, the forms were returned to the applicant to make the necessary corrections.

See comment 5.

5. According to the head of the West Virginia Office of Emergency Services, no such remarks on this subject, as were attributed in your draft report to "WVOES officials" were ever made.

As can be seen from this information, the State of West Virginia and its local subdivisions responded in an expedited fashion and in a manner which guaranteed that the State's oversight responsibilities were handled in a professional way. A statistically invalid sample and a lack of thorough review by the federal government cannot be used as justification to attack the State's achievement of excellent service to its citizens and governmental entities during a disaster of unpredictable and extraordinary proportions.

See comment 6.

OFFICE OF THE GOVERNOR

My fellow West Virginians and I strongly urge you to remove the above mentioned language from your draft report prior to its finalization. Such inaccurate and unsubstantiated comments have no place in a document which is supposed to be helpful in better dealing with future disaster situations.

Thank you for your cooperation and consideration. I look forward to receiving your final report.

Sincerely yours,

Arch A. Moore, Jr.
Governor

AAMJr/jf

The following are GAO's comments on the Governor of West Virginia's letter dated September 4, 1987.

GAO Comments

1. As stated on page 40 of our draft report, state officials told us that payments were not made as fast in this disaster as in previous disasters. These officials were the Acting Director of WVOES, the public assistance planner, and staff in the Administrative Support Services Division. The statement is not a GAO conclusion and was not based on the payments we reviewed. Because previous West Virginia disasters were not included in the scope of this review, we relied on state officials to comment on their relative performance. We are not rendering a judgment on that performance.

2. The 40 payments we selected for detailed review represented all the requests available at the time of our review for Preston and Tucker Counties—two of the hardest hit counties in the November 1985 flood. These payments were never intended to be representative of the state's experience in the disaster.

We do acknowledge, as the letter suggests, the magnitude of the flood. We note further that the extraordinary nature of the flood makes it difficult to identify how long it should have taken the state to make public assistance payments. We are therefore not rendering a judgment on the state's performance regarding this issue.

3. Page 40 of our draft report states that, according to state officials, payments to public assistance applicants were made faster than normal payments. Again, this is not a GAO conclusion and it is not based on a GAO sample. This assessment was that of officials in the Governor's Office and an Assistant Director in the state's Auditor's Office.

4. Items 1 through 4 may partially explain why the total average time to process a payment was 26 days, but we do not believe that they explain the average of 11 days that each payment was in the Governor's Office. We believe that the state's public assistance office should have identified such errors and had them corrected in accordance with its established procedures before the payment requests were sent to the Governor's Office.

5. Our statements on page 40 of the draft report which we attributed to state and WVOES officials were provided during interviews with an official in the Governor's Office and with the Director of WVOES Administrative Support Services Division —who was also the Acting Director of WVOES at the time—and his staff.

6. We disagree with the state's conclusion that there was a lack of thorough review by our office. The cases we reviewed were selected and analyzed in detail to determine how quickly the state was making public assistance payments. We identified and isolated 19 individual actions in the payment process and the average time it took to accomplish each step for the 40 payments. Five of the 19 steps were added as a result of requiring the requests and payments to be routed through the Governor's Office. We did not, however, use the results of our sample to reach any conclusions or to develop any recommendations.

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*U.S. G.P.O. 1988-201-749:60240

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