



November 2019

U.S. VIRGIN ISLANDS RECOVERY

Additional Actions Could Strengthen FEMA's Key Disaster Recovery Efforts

GAO Highlights

Highlights of [GAO-20-54](#), a report to congressional requesters

Why GAO Did This Study

In September 2017, two major hurricanes—Irma and Maria—struck the USVI, causing billions of dollars in damage. FEMA is the lead federal agency responsible for assisting the USVI to recover from natural disasters. FEMA administers the Public Assistance program and Hazard Mitigation Grant Program in partnership with the USVI government, providing grant funding for response and recovery activities, including life-saving emergency protective measures, the repair or replacement of public infrastructure, and measures to increase the territory's resilience during future disasters.

GAO was asked to review the federal government's response and recovery efforts in the USVI. This report examines (1) the status of Public Assistance program and Hazard Mitigation Grant Program funding and challenges, if any, with implementation, (2) the STEP pilot program, and (3) the oversight of these programs. GAO reviewed documentation and data on the Public Assistance program and Hazard Mitigation Grant Program in the USVI as of June 30, 2019. GAO interviewed FEMA and USVI officials regarding the status of recovery efforts and associated challenges, and conducted site visits to the USVI islands of St. Croix, St. Thomas, and St. John.

What GAO Recommends

GAO recommends that FEMA (1) evaluate its options for providing emergency sheltering and (2) assess the need for a consolidated standard operating procedures document for the Hazard Mitigation Grant Program. The Department of Homeland Security concurred with these recommendations.

View [GAO-20-54](#). For more information, contact Chris Currie at (202) 512-8777 or curriec@gao.gov.

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What GAO Found

As of June 30, 2019, FEMA obligated more than \$1.9 billion in grant funding for 640 projects in the U.S. Virgin Islands (USVI) through the Public Assistance program and Hazard Mitigation Grant Program in response to the 2017 hurricanes. However, the limited availability of local USVI personnel to staff key recovery positions and the territory's difficult fiscal situation presented challenges in implementing these programs. Further, FEMA and USVI officials stated they faced challenges with implementing the Public Assistance alternative procedures program, which provides the USVI with flexibility in determining when and how to fund projects. Specifically, these officials stated that developing accurate fixed-cost estimates and using new flexibilities authorized by law delayed longer-term recovery projects. USVI officials told GAO they plan to take a cautious approach when deciding whether to pursue projects using the alternative procedures.

2017 Hurricane Damage in the U.S. Virgin Islands



The Virgin Islands Housing Authority office in St. Thomas sustained significant damage during the storms.



Hurricane force winds completely destroyed apartments in a public housing facility in St. Thomas.

Source: GAO. | [GAO-20-54](#)

FEMA expanded its Sheltering and Temporary Essential Power (STEP) pilot program in the USVI to address the lack of other sheltering options for survivors, such as hotels. The program aimed to provide minimal, temporary repairs to damaged homes to quickly make them habitable. In May 2019, FEMA decided it would not use the STEP pilot program in the future since it did not provide assistance as rapidly as intended. Historically, the program was used to address survivors' emergency sheltering needs. However, since ending it, FEMA has not evaluated options for providing future emergency sheltering assistance. Doing so could help FEMA plan for when the next disaster inevitably strikes.

The USVI and FEMA established structures for overseeing recovery efforts. For example, the USVI established a new office to oversee federal recovery programs and FEMA has processes in place to oversee recovery projects at the local, regional, and headquarters levels. However, GAO found that FEMA does not have a consolidated standard operating procedures document for monitoring Hazard Mitigation Grant Program projects. Assessing the need for a consolidated document would help FEMA determine whether its existing guidance should be strengthened.

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November 19, 2019

Congressional Requesters

In September 2017, two Category 5 hurricanes—Irma and Maria—struck the U.S. Virgin Islands (USVI) in the span of two weeks, devastating the territory’s education and housing sectors, electricity grid, and healthcare system, among other critical infrastructure, and causing billions of dollars in damage (see fig. 1).¹ In addition, the hurricanes generated hundreds of thousands of tons of debris, often blocking roads and making transportation hazardous. Further, the storms severely impacted the territory’s economy—especially tourism—exacerbating an already difficult financial situation in the USVI, which had been operating under severe fiscal constraints prior to the storm.²

¹The National Oceanic and Atmospheric Administration measures hurricanes on a scale from 1 to 5 with a Category 1 being the least intense and a Category 5 being the most intense. A Category 5 hurricane is defined as having winds above 157 miles per hour. Both Hurricane Irma and Hurricane Maria made landfall on the U.S. Virgin Islands (USVI) as Category 5 hurricanes.

²In June 2019, we reported that the USVI’s total public debt outstanding increased between fiscal years 2005 and 2015 from \$1.4 billion to \$2.7 billion. The balance subsequently declined to \$2.6 billion in fiscal year 2016—the most recent year for which data were available—due to the repayment of existing debt. GAO, *U.S. Territories: Public Debt Outlook – 2019 Update*, [GAO-19-525](#) (Washington, D.C.: June 28, 2019).

Figure 1: Selected Hurricane Damage Sustained in St. Croix and St. Thomas, U.S. Virgin Islands



This school building in St. Croix sustained severe hurricane damage, including a collapsed roof.



Hurricane force winds completely destroyed apartments in a public housing facility in St. Thomas.

Source: GAO. | GAO-20-54

The Federal Emergency Management Agency (FEMA)—a component of the Department of Homeland Security (DHS)—is the lead federal agency responsible for assisting the USVI as it recovers from these natural disasters.³ Among other responsibilities, FEMA works with the USVI government to administer the Public Assistance grant program and Hazard Mitigation Grant Program, providing grant funding for a wide range of eligible response and recovery activities. The Public Assistance program provides grant funding for debris removal efforts; life-saving emergency protective measures, such as emergency repairs to private homes through the Sheltering and Temporary Essential Power (STEP) pilot program; and the repair or replacement of disaster-damaged publicly-owned facilities.⁴ In July 2018, FEMA approved the USVI's request to use the Public Assistance alternative procedures pilot program in the territory, which offers financial incentives for the timely and cost-

³See 6 U.S.C. § 313.

⁴The STEP pilot program is an emergency sheltering program implemented under the Public Assistance program's category B emergency work. The program allows FEMA to fund emergency, temporary repairs to make damaged homes habitable by, for example, restoring electricity to a private home and applying temporary patches to roofs and windows to protect the interior.

effective completion of projects. The Hazard Mitigation Grant Program provides funding for long-term mitigation solutions, such as elevating properties in flood-prone areas and retrofitting public infrastructure to minimize future damage from high winds, flooding, and other effects of natural or man-made disasters.

We have previously reported on federal disaster response and recovery efforts in the USVI. In September 2018, we reported our observations of FEMA's response to hurricanes Irma and Maria in the USVI, among other impacted areas.⁵ In February 2019, we reported on the status of FEMA's Public Assistance program in the USVI, including the USVI's decision to pursue the Public Assistance alternative procedures program.⁶ Further, we testified on four occasions in June, July, and October of 2019 regarding our observations on the USVI's plans for using the alternative procedures program and challenges with program implementation.⁷

You asked us to review the federal government's response to the 2017 hurricanes. In this report, we examine:

1. the status of Public Assistance program and Hazard Mitigation Grant Program funding in the USVI and any challenges FEMA and the USVI faced in implementing these programs;
2. FEMA's and the USVI's implementation of the STEP pilot program and FEMA's plans for providing future emergency sheltering assistance; and

⁵GAO, *2017 Hurricanes and Wildfires: Initial Observations on the Federal Response and Key Recovery Challenges*, [GAO-18-472](#) (Washington, D.C.: September 4, 2018).

⁶GAO, *U.S. Virgin Islands Recovery: Status of Public Assistance Funding and Implementation*, [GAO-19-253](#) (Washington, D.C.: February 25, 2019). In March 2019, we also reported on the status of disaster recovery efforts in Puerto Rico. GAO, *Puerto Rico Hurricanes: Status of FEMA Funding, Oversight, and Recovery Challenges*, [GAO-19-256](#) (Washington, D.C.: March 14, 2019).

⁷GAO, *Emergency Management: FEMA Has Made Progress, but Challenges and Future Risks Highlight Imperative for Further Improvements*, [GAO-19-594T](#) (Washington, D.C.: June 12, 2019). GAO, *Emergency Management: FEMA Has Made Progress, but Challenges and Future Risks Highlight Imperative for Further Improvements*, [GAO-19-617T](#) (Washington, D.C.: June 25, 2019). GAO, *Emergency Management: FEMA's Disaster Recovery Efforts in Puerto Rico and the U.S. Virgin Islands*, [GAO-19-662T](#) (Washington, D.C.: July 11, 2019). GAO, *Disaster Recovery: Recent Disasters Highlight Progress and Challenges*, [GAO-20-183T](#) (Washington, D.C.: October 22, 2019).

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3. the extent to which FEMA and the USVI have structures in place to oversee the implementation and monitoring of the Public Assistance program and Hazard Mitigation Grant Program.

To address these objectives, we reviewed relevant laws and FEMA program documentation on the Public Assistance program and Hazard Mitigation Grant Program, including the April 2018 *Public Assistance Program and Policy Guide*, the September 2018 *Public Assistance Alternative Procedures Permanent Work Guide* for the USVI, and the February 2015 *Hazard Mitigation Assistance Guidance*.⁸ Further, we conducted site visits to the USVI in May and October of 2018 and March of 2019 where we visited the USVI islands of St. Croix, St. Thomas, and St. John. We observed hurricane-damaged areas, as well as specific Public Assistance program and Hazard Mitigation Grant Program projects. These site visits were not generalizable to all program projects across all damaged areas of the USVI. We interviewed relevant FEMA and USVI officials, as well as contractor and USVI personnel responsible for implementing these projects. We also examined key program paperwork and documentation and observed the data systems FEMA uses to develop, monitor, and oversee individual projects.

To assess the status of Public Assistance program and Hazard Mitigation Grant Program funding in the USVI and any challenges in the implementation of these programs, we obtained and analyzed data from three FEMA systems—the Emergency Management Mission Integrated Environment, Integrated Financial Management Information System, and National Emergency Management Information System—on FEMA’s obligations and the USVI’s expenditures as of June 30, 2019.⁹ We

⁸FEMA, *Public Assistance Program and Policy Guide*, FP 104-009-2 (April 2018). FEMA, *Public Assistance Alternative Procedures (Section 428) Permanent Work Guide FEMA-4340-DR-VI* (September 15, 2018). FEMA, *Hazard Mitigation Assistance Guidance* (February 27, 2015).

⁹These data do not include obligations and expenditures for, among other federal disaster assistance programs, direct federal mission assignments, in which a federal agency is tasked with providing eligible emergency work or debris removal services to a territory or state, or for other categories of mission assignments. An obligation is a definite commitment that creates a legal liability of the government for the payment of goods and services ordered or received. For the purposes of this report, obligations represent the amount of grant funding FEMA provided through the Public Assistance program and Hazard Mitigation Grant Program for specific projects in the USVI. An expenditure is an amount paid by federal agencies, by cash or cash equivalent, during the fiscal year to liquidate government obligations. For the purposes of this report, an expenditure represents the actual spending by the USVI government of money obligated by the federal government.

reviewed existing information about these systems, interviewed data users and managers responsible for these data, and cross-checked data across sources to ensure consistency. Based on these steps, we determined these data to be sufficiently reliable for the purposes of reporting on FEMA obligations and USVI expenditures. In addition, we interviewed FEMA officials in the USVI to discuss any challenges they faced with program-wide implementation of the Public Assistance program and Hazard Mitigation Grant Program, as well as those associated with specific recovery projects. Further, we interviewed the USVI Governor and territorial officials in the Office of Disaster Recovery, the Territorial Emergency Management Agency, and the Department of Finance, as well as contractor personnel.

To evaluate FEMA's and the USVI's implementation of the STEP pilot program in the USVI and FEMA's plans for providing future emergency sheltering assistance, we reviewed relevant program documentation, including FEMA's STEP pilot program guide for the USVI, as well as letters, memoranda, and other documentation FEMA issued to update or clarify key components of the program.¹⁰ We interviewed FEMA officials in the USVI, FEMA Region II, and headquarters to discuss FEMA's implementation of the STEP pilot program and associated challenges in the USVI.¹¹ In addition, we interviewed territorial officials in, among other agencies, the Virgin Islands Housing Finance Authority—which is responsible for implementing the STEP pilot program in the USVI—as well as contractor personnel regarding program implementation and relevant challenges. Further, during a March 2019 site visit to St. Croix, we observed ongoing STEP pilot program repairs, as well as inspections on participating homes.¹² We also reviewed FEMA's implementation of the STEP pilot program during other disaster recovery efforts and assessed the agency's options for providing emergency sheltering

¹⁰FEMA, *Sheltering and Temporary Essential Power (STEP) Pilot Program for FEMA-4335-DR-VI and FEMA-4340-DR-VI* (October 27, 2017).

¹¹FEMA Region II is responsible for the states of New Jersey and New York, the Commonwealth of Puerto Rico, the territory of the U.S. Virgin Islands, and eight Tribal Nations.

¹²STEP pilot program eligibility is limited to disaster-damaged, single-family owner-occupied residential properties, to include duplexes and townhomes. Commercial properties and commonly owned areas, structures, or equipment are not eligible for the STEP pilot program. For the purposes of this report, a "home" refers to a property that participated in the STEP pilot program.

assistance against federal internal control standards related to identifying, analyzing, and responding to risks to achieve objectives.¹³

To assess the extent to which FEMA and the USVI have structures in place to oversee the implementation and monitoring of the Public Assistance program and Hazard Mitigation Grant Program, we reviewed relevant documentation on these programs. Specifically, we reviewed the December 2013 *Public Assistance Program Management and Grant Closeout Standard Operating Procedure*, the July 2016 *Hazard Mitigation Field Operations Guide*, and the USVI's administrative plans outlining the territory's programmatic management and project monitoring activities for these programs, among other relevant documents.¹⁴ We assessed FEMA guidance for the Public Assistance program and Hazard Mitigation Grant Program against federal internal control standards and standards for program management related to defining objectives in specific and measurable terms so they are understood at all levels of the organization and documenting success criteria for key milestones.¹⁵ We also interviewed FEMA officials in the USVI, FEMA Region II, and headquarters regarding the agency's responsibilities and processes for ensuring the USVI implemented the Public Assistance program and Hazard Mitigation Grant Program in accordance with relevant laws, regulations, policies, and FEMA guidance. Further, we interviewed USVI officials in the Office of Disaster Recovery and Virgin Islands Territorial Emergency Management Agency, as well as USVI contractor personnel, among others, to assess the structures and processes the territory had in place to effectively oversee projects.

We conducted this performance audit from June 2018 through November 2019 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for

¹³GAO, *Standards for Internal Control in the Federal Government*, [GAO-14-704G](#) (Washington, D.C.: September 2014).

¹⁴FEMA SOP9570.14, *Public Assistance Program Management and Grant Closeout Standard Operating Procedure* (December 2013). FEMA, *Hazard Mitigation Field Operations Guide (HMFOG): Management* (July 2016).

¹⁵[GAO-14-704G](#). Project Management Institute, Inc., *The Standard for Program Management*®, Third Edition (Newton Square, PA: 2013). *The Standard for Program Management*® describes, among other things, how resource planning; goals, milestones, and performance measures; and program monitoring and reporting are good practices that can enhance management for most programs.

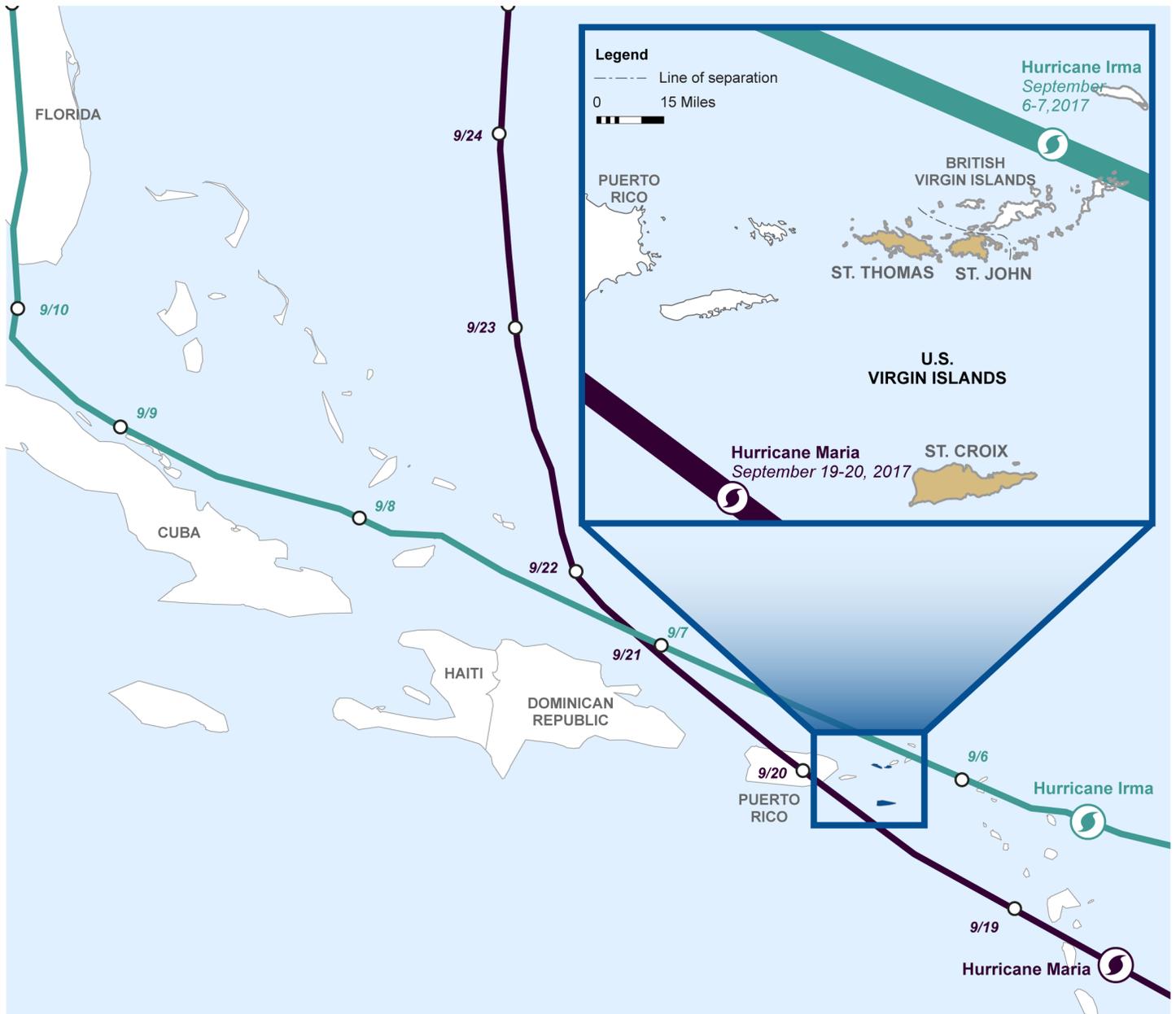
our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Background

Hurricanes Irma and Maria In September 2017, Hurricane Irma struck the islands of St. Thomas and St. John, and two weeks later, Hurricane Maria struck the island of St. Croix in the USVI, causing catastrophic damage across the entire territory and neighboring Caribbean islands (see fig. 2).¹⁶

¹⁶The USVI is the easternmost territory of the United States and consists of four islands (St. Thomas, St. Croix, St. John, and Water Island). The USVI is located 1,115 miles southeast of Miami and 70 miles east of San Juan, Puerto Rico (see fig. 2).

Figure 2: Path of Hurricanes Irma and Maria through the U.S. Virgin Islands



Source: GAO analysis of National Oceanic and Atmospheric Administration data; Map Resources (map). | GAO-20-54

The storms severely damaged the USVI's critical infrastructure, leaving many of the territory's 107,000 residents without electricity, phone service, food, or running water. According to a September 2018 report from the USVI Hurricane Recovery and Resilience Task Force (USVI Task Force Report), the hurricanes devastated the territory's electricity grid and telecommunications systems, shutting down both for months.¹⁷ Further, the storms damaged more than half of the territory's housing units, as well as its hospitals, government buildings, schools, water and wastewater facilities, and more (see figs. 3 and 4). Overall, the report estimated that the hurricanes caused approximately \$10.7 billion in total damages across the USVI.

Figure 3: Hurricane Damage Sustained at a Hospital in St. Thomas, U.S. Virgin Islands as of May 2018



Damage to the hospital's roof allowed water to infiltrate the facility, severely damaging check-in areas, hospital rooms, medical equipment and records, and offices.

Source: GAO. | GAO-20-54



Broken windows caused water and wind damage to a nurses' station. Hospital personnel erected temporary wooden holdings until the station's walls and windows can be repaired.

¹⁷In October 2017, the Governor of the USVI called for the USVI Hurricane Recovery and Resilience Task Force to draft a report assessing the USVI's hurricane response and guiding its efforts during the rebuilding process. The report was released in September 2018 and can be found at <https://www.usvihurricanetaskforce.org/>. We reported our observations on federal support for electricity grid restoration in the USVI and Puerto Rico as a result of the 2017 hurricanes in a separate report. See GAO, *2017 Hurricane Season: Federal Support for Electricity Grid Restoration in the U.S. Virgin Islands and Puerto Rico*, GAO-19-296 (Washington, D.C.: April 18, 2019).

Figure 4: Hurricane Damage to the Virgin Islands Housing Authority’s Central Office as of October 2018, St. Thomas, U.S. Virgin Islands



The Virgin Islands Housing Authority’s Central Office in St. Thomas sustained significant damage during the hurricanes.

Source: GAO. | GAO-20-54

In response to the request of the Governor of the USVI, the President declared a major disaster the day after each hurricane struck the territory.¹⁸ Major disaster declarations can trigger a variety of federal

¹⁸In accordance with the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act), as amended, the President of the United States may declare that a major disaster or emergency exists in response to a governor’s or tribal chief executive’s request if the disaster is of such severity and magnitude that effective response is beyond the capabilities of a state, tribe, or local government and federal assistance is necessary. See 42 U.S.C. § 5170. Prior to a major disaster or emergency declaration, a preliminary damage assessment is typically used to determine the impact and magnitude of damage and the resulting needs of individuals, businesses, the public sector, and the community as a whole. The territory then generally uses the information collected as the basis for the governor’s request for a major disaster or emergency declaration. However, based on the severity and magnitude of hurricanes Irma and Maria, the FEMA Regional Administrator, upon consultation with the USVI, determined supplemental federal assistance was necessary before joint federal, state, and local government preliminary damage assessments were completed.

response and recovery programs for government and nongovernmental entities and households and individuals, including assistance through the Public Assistance program and Hazard Mitigation Grant Program.¹⁹

Under the *National Response Framework and National Disaster Recovery Framework*, DHS is the federal department with primary responsibility for coordinating disaster response and recovery, and within DHS, FEMA has lead responsibility. The Administrator of FEMA serves as the principal adviser to the President and the Secretary of Homeland Security regarding emergency management.²⁰

FEMA's, States', and Territories' Roles and Responsibilities for Disaster Recovery

Once the President has declared a major disaster, FEMA, the state or territorial government (the recipient), and local or territorial entities (the subrecipient) work together to, among other things, identify and develop projects through the Public Assistance program and Hazard Mitigation Grant Program.²¹ After a project has completed FEMA's review process and is approved, FEMA obligates funding for the project by placing money into an account where the recipient has the authority to draw down—or expend—funding to pay for eligible work upon completion. Further, when a project has been completed, FEMA conducts a close-out process to certify that all eligible work has been completed and reconciles the actual cost incurred. If the actual cost of the completed work is less than the amount of money FEMA obligated for the project, FEMA will deobligate funding. However, if the actual cost of the completed work is greater than the amount of money FEMA obligated for the project, FEMA may reimburse the subrecipient for these additional costs.

A state or territorial governor may designate a governor's authorized representative to oversee all aspects of disaster assistance—including Public Assistance program and Hazard Mitigation Grant Program

¹⁹*Presidential Policy Directive-8 National Preparedness* (PPD-8) establishes a national preparedness system made of an integrated set of guidance, programs, and processes designed to strengthen the security and resilience of the United States through systematic preparation for the natural and human-caused threats that pose the greatest risk. This system breaks preparedness activities into five different lines of effort—prevention, protection, mitigation, response, and recovery—each of which requires a separate planning framework.

²⁰6 U.S.C. § 313(c)(4).

²¹Federal regulations adopted by DHS that govern federal awards require that recipients of federal awards, including states and territories, must monitor subrecipients to ensure they are aware of, and comply with, federal regulations. See 2 C.F.R. § 200.331.

funding—to ensure the USVI’s compliance with federal regulations and FEMA requirements.²² Among other responsibilities, the governor’s authorized representative is to confirm that subrecipients submit complete documentation demonstrating that all eligible work completed is in accordance with program requirements.

FEMA’s Public Assistance Program and Hazard Mitigation Grant Program

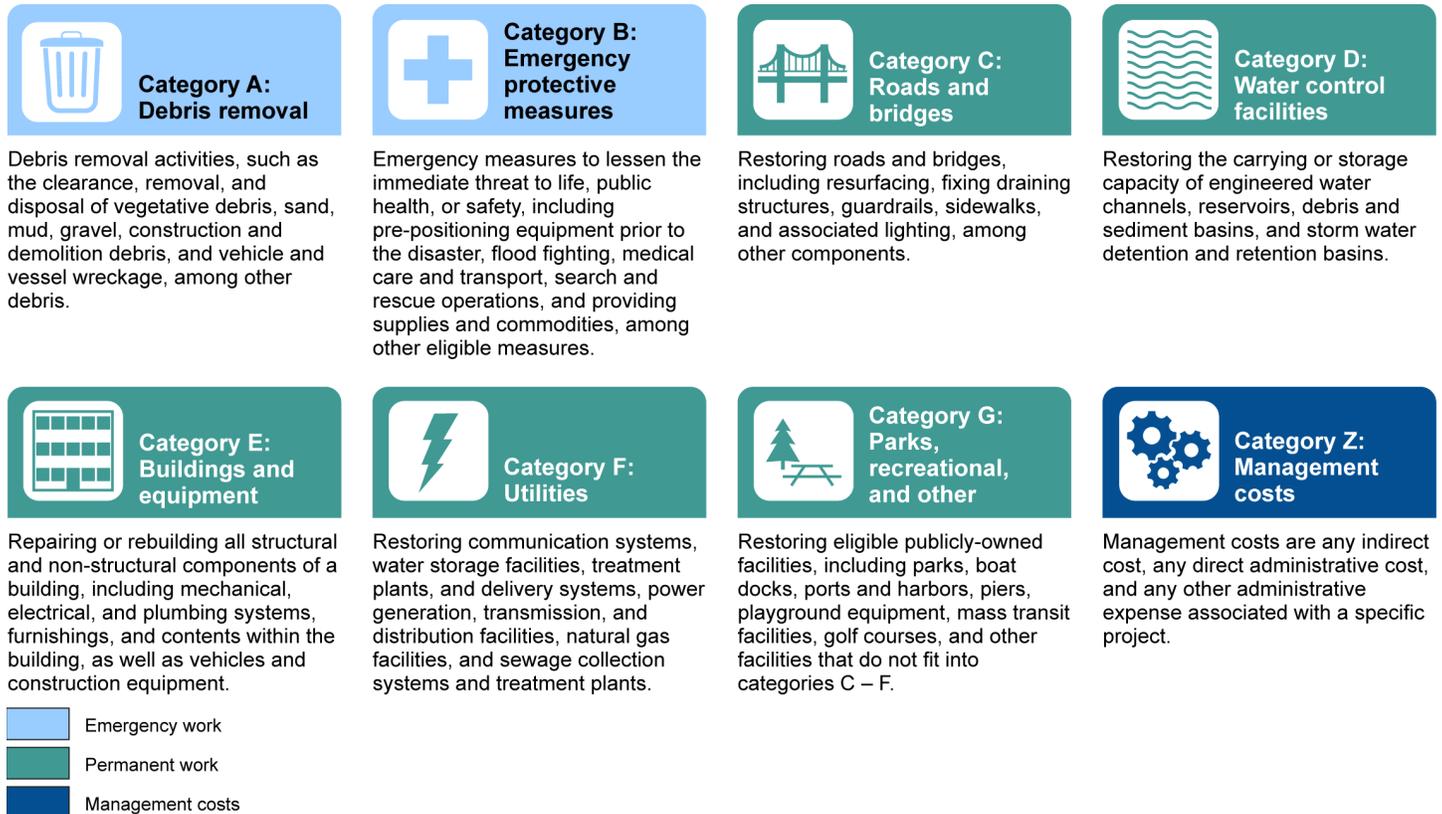
FEMA’s Public Assistance program provides grant funding to state, territorial, local, and tribal governments, as well as certain types of private nonprofit organizations, to assist with the repair or replacement of disaster-damaged public infrastructure.²³ To develop projects under the Public Assistance program, FEMA and USVI officials collaborate to identify and document the damage caused by a disaster to a particular system or facility. These officials then use this damage assessment to formulate the scope of work—or activities required to fix the identified damage—as well as the estimated cost of these activities.

As shown in figure 5, Public Assistance grant funds are organized broadly as “emergency work” or “permanent work.” Within these areas are separate categories of work. In addition to emergency work and permanent work, the program includes category Z, which represents indirect costs, direct administrative costs, and any other administrative expenses associated with a specific project.

²²44 C.F.R. §§ 206.2(a)(13) and 206.41(d).

²³The Public Assistance program represents the largest share of the Disaster Relief Fund, which is the primary source of federal disaster assistance for state and local governments when a disaster is declared. The Disaster Relief Fund is appropriated no-year funding, which allows FEMA to fund, direct, coordinate, and manage response and recovery efforts—including certain efforts by other federal agencies and state and local governments, among others—associated with domestic disasters and emergencies.

Figure 5: Federal Emergency Management Agency’s Public Assistance Program Categories of Work



Source: Federal Emergency Management Agency. | GAO-20-54

Under the Public Assistance program’s permanent work categories, FEMA also provides grant funding for cost-effective hazard mitigation measures to reduce or eliminate the long-term risk to people and property from future natural and man-made disasters and their effects.²⁴ FEMA provides this funding in conjunction with the repair of disaster-damaged facilities to enhance their resilience during future disasters. For example, this funding could be used to replace damaged wooden utility poles with composite fiberglass ones to increase the resilience of an electricity distribution system and mitigate the potential for future damage from hurricane-force winds.

²⁴FEMA may fund hazard mitigation measures related to the damaged facilities receiving Public Assistance funding pursuant to Section 406 of the Stafford Act, as amended. 42 U.S.C. § 5172; 44 C.F.R. § 206.226.

FEMA's Hazard Mitigation Grant Program provides grant funding for long-term mitigation solutions to reduce the risk of loss of life and property from future disasters. Unlike mitigation measures funded through the Public Assistance program to further protect disaster-damaged infrastructure, the Hazard Mitigation Grant Program may fund measures for systems, facilities, or properties that were not damaged in the disaster. For example, program funding can be used to construct floodwater control measures—such as berms and rock linings—that did not exist prior to the disaster, or to update existing hazard mitigation plans to accurately reflect current mitigation goals.

The Public Assistance Alternative Procedures Pilot Program in the USVI

In July 2018, FEMA approved the use of the Public Assistance alternative procedures pilot program for permanent work projects in the territory.²⁵ Unlike the standard Public Assistance program wherein FEMA will fund the actual cost of a project, the alternative procedures require awards for permanent work projects to be made on the basis of fixed-cost estimates. As a result, the recipient or subrecipient is ultimately responsible for any project costs that exceed the agreed-upon fixed-cost estimate at the time of the close-out process.

However, the alternative procedures program also provides the USVI with financial incentives for the timely and cost-effective completion of work and additional flexibilities that are not available through the standard Public Assistance program. For example, the USVI may use excess grant funding for cost-effective hazard mitigation measures and, in certain circumstances, consolidate permanent work projects approved under the alternative procedures and share obligated funding across these projects. Further, section 20601 of the Bipartisan Budget Act of 2018 authorizes FEMA, when using the alternative procedures, to provide assistance to fund the replacement or restoration of disaster-damaged infrastructure that provide critical services without regard to pre-disaster condition (see

²⁵The Sandy Recovery Improvement Act of 2013 amended the Stafford Act by adding Section 428, which authorized FEMA to approve Public Assistance program projects under the alternative procedures provided by that section for any presidentially-declared major disaster or emergency. This section further authorized FEMA to carry out the alternative procedures as a pilot program until FEMA promulgates regulations to implement this section. Pub. L. No. 113-2, div. B, § 1102, 127 Stat. 39, amending Pub. L. No. 93-288, tit. IV, § 428 (codified at 42 U.S.C. § 5189f).

fig. 6).²⁶ For example, through the Act, FEMA may fund the restoration of a disaster-damaged school building—which provides a critical service—to accepted industry standards applicable to the construction of education facilities.²⁷ Therefore, according to FEMA policy, if components of the school building were not up to industry standards or in poor condition prior to the 2017 hurricanes, the Act allows FEMA to fund the restoration of this building to a better condition than it was in prior to the storms.

²⁶Bipartisan Budget Act of 2018, Pub. L. No. 115-123, § 20601(1), 132 Stat. 64 (2018). Critical services include public infrastructure in the following sectors: power, water, sewer, wastewater treatment, communications, education, and emergency medical care. See 42 U.S.C. § 5172(a)(3)(B). The Act also authorizes FEMA to fund the repair or replacement of undamaged components of critical services infrastructure when necessary to restore the function of the facility or system to industry standards. Section 20601 applies only to assistance provided through the Public Assistance alternative procedures program for the duration of the recovery for the major disasters declared in Puerto Rico and the USVI following hurricanes Irma and Maria. For the purposes of our report, discussion of the Bipartisan Budget Act of 2018 refers specifically to section 20601. Further, the Additional Supplemental Appropriations for Disaster Relief Act of 2019, which was signed into law on June 6, 2019, provides additional direction to FEMA in the implementation of section 20601. See Pub. L. No. 116-20, tit. VI, § 601, 133 Stat. 871, 882 (2019). Specifically, it directs FEMA to “include the costs associated with addressing pre-disaster condition, undamaged components, codes and standards, and industry standards in the cost of repair” when calculating whether a facility should be repaired or replaced. According to FEMA officials, FEMA evaluated this and other provisions of the Act and, in September 2019, issued an updated policy to provide clear guidance.

²⁷Industry standards are developed by various recognized formal organizations and may include code or standard requirements that meet the eligibility criteria set forth in FEMA’s Public Assistance program guidance, voluntary standards which are generally established by consensus and are available for use by any organization, private or government, or proprietary standards which are placed in the public domain for widespread use. FEMA may also approve standards that have not been formally published, adopted, or documented, but are reasonable and applicable to the restoration of the facility or system in question.

Figure 6: Overview of the Bipartisan Budget Act of 2018 Eligibility Requirements and Flexibilities

The Bipartisan Budget Act of 2018

Section 20601 of the Bipartisan Budget Act of 2018 authorizes FEMA to provide assistance to restore disaster-damaged facilities or systems that provide critical services to an industry standard without regard to pre-disaster condition.

Eligibility

To be eligible to use the authority provided by section 20601 of the Bipartisan Budget Act of 2018, a Public Assistance project must:^a

- Use the Public Assistance alternative procedures program under Section 428 of the Stafford Act.^b
- Provide a critical service as defined in Section 406 of the Stafford Act. Critical services include facilities or systems that provide power, water, sewer, wastewater treatment, communications, education, or emergency medical care or services.^c
- Have disaster damage that adversely impacts the function of the facility or system as it relates to the critical service and include costs equal to or greater than \$123,100 to repair this damage prior to insurance reductions.

Flexibilities

There are several key flexibilities to using the Bipartisan Budget Act of 2018 for Public Assistance alternative procedures projects:

- FEMA is not required to differentiate between damage to a facility or system that occurred prior to a disaster and damage directly caused by the disaster itself.
- FEMA may fund the repair or replacement of damaged critical services facilities to industry standards so it is in a better condition than it was prior to the 2017 hurricanes.^d
- According to FEMA policy, if repairing a damaged facility or system is not feasible—or is feasible, but replacing the facility is more prudent—then the facility is eligible for a full replacement.^e

Source: GAO analysis of Federal Emergency Management Agency (FEMA) documentation and the Bipartisan Budget Act of 2018. | GAO-20-54

^aBipartisan Budget Act of 2018, Pub. L. No. 115-123, § 20601(1), 132 Stat. 64 (2018); see also Pub. L. No. 116-20, tit. VI, § 601, 133 Stat. 871, 882 (2019).

^bSee 42 U.S.C. § 5189f.

^cSee 42 U.S.C. § 5172(a)(3)(B). For a mixed-use facility that provides both critical and non-critical services, the Bipartisan Budget Act will apply only to the portion that provides the critical service except where components are interconnected and require repair or replacement in order to fully effectuate the function of the critical service to industry standard(s).

^dIndustry standards are developed by various recognized formal organizations and may include code or standard requirements that meet the eligibility criteria set forth in FEMA's Public Assistance program guidance, voluntary standards which are generally established by consensus and are available for use by any organization, private or government, or proprietary standards which are placed in the public domain for widespread use. FEMA may also approve standards that have not been formally published, adopted, or documented, but are reasonable and applicable to the restoration of the facility or system in question.

^eThe Additional Supplemental Appropriations for Disaster Relief Act of 2019, which was signed into law on June 6, 2019, provides additional direction to FEMA in the implementation of section 20601. See Pub. L. No. 116-20, tit. VI, § 601, 133 Stat. 871, 882 (2019). Specifically, it directs FEMA to "include the costs associated with addressing pre-disaster condition, undamaged components, codes

and standards, and industry standards in the cost of repair” when calculating whether a facility should be repaired or replaced. According to FEMA officials, FEMA evaluated this and other provisions of the Act and, in September 2019, issued an updated policy to provide clear guidance.

The Sheltering and Temporary Essential Power Pilot Program

The Sheltering and Temporary Essential Power (STEP) pilot program is an emergency sheltering program implemented under FEMA’s emergency work authority and funded through the Public Assistance program’s category B emergency work.²⁸ The program—which was created following Hurricane Sandy in 2012—allows FEMA to fund emergency, temporary repairs to make damaged homes habitable by, for example, restoring electricity to a private home and applying temporary patches to roofs and windows to protect the interior.²⁹ In funding these types of repairs, FEMA’s goal is to quickly make damaged homes habitable in the short term until the homeowner could complete more permanent repairs independently through other FEMA programs or private insurance payments. Since 2012, FEMA has implemented the program as a tool in addressing the unique circumstances and challenges associated with providing safe sheltering options for disaster survivors.³⁰

²⁸FEMA may provide assistance essential to meeting immediate threats to life and property resulting from a major disaster, including performing work or services essential to saving lives and protecting and preserving property or public health and safety pursuant to Section 403 of the Stafford Act, as amended. See also 42 U.S.C. § 5170b(a)(3); 44 C.F.R. § 206.225. In the USVI, the official name of this program is the Emergency Home Repairs Virgin Islands program.

²⁹STEP pilot program eligibility is limited to disaster-damaged, single-family owner-occupied residential properties, to include duplexes and townhomes. Commercial properties and commonly owned areas, structures, or equipment are not eligible for the STEP pilot program. For the purposes of this report, a “home” refers to a property that participated in the STEP pilot program.

³⁰FEMA implemented the STEP pilot program in Florida, Louisiana, New Jersey, New York, North Carolina, Puerto Rico, Texas, and the USVI.

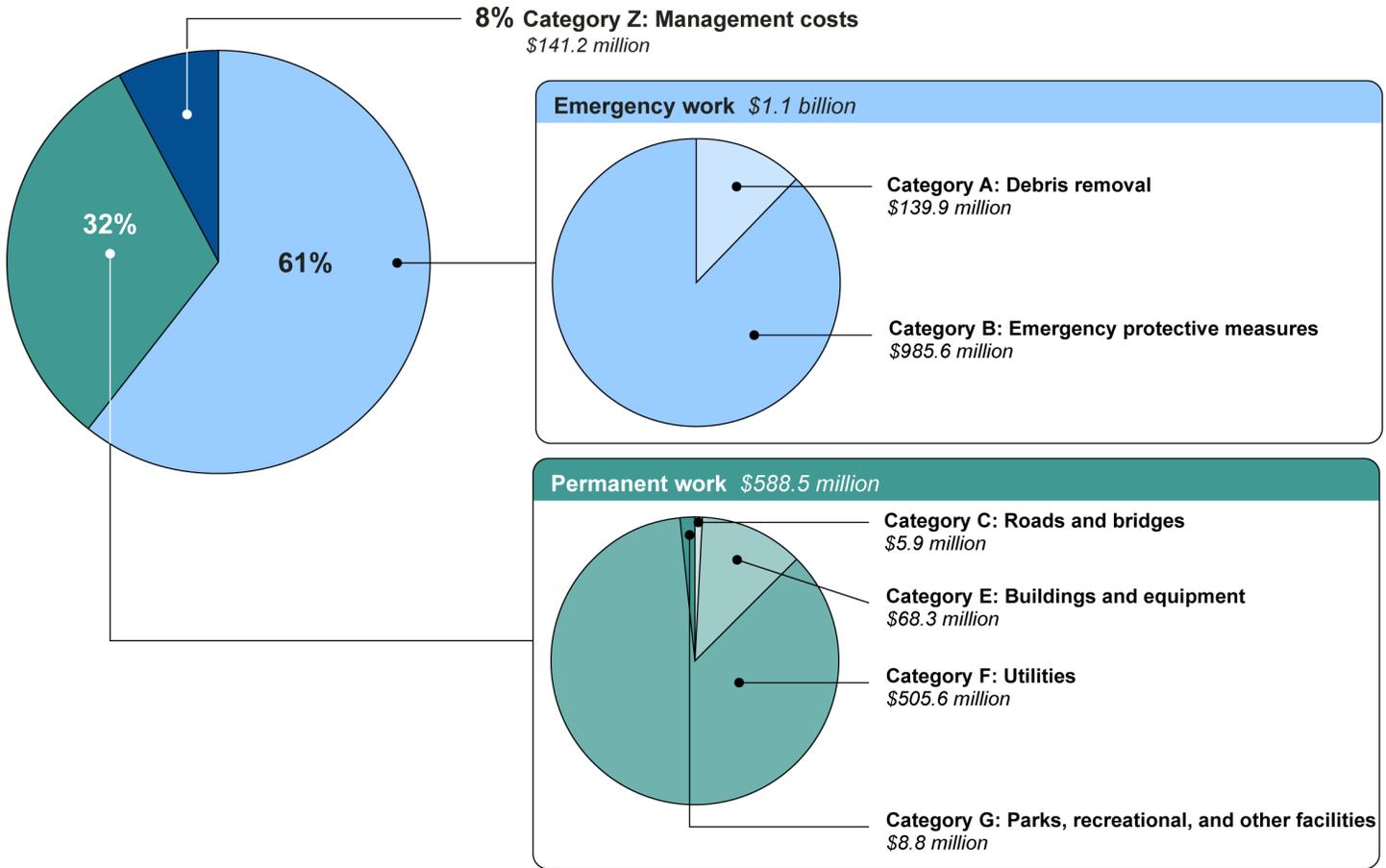
FEMA Obligated More Than \$1.9 Billion through Two USVI Recovery Programs as of June 30, 2019, but Faced Some Challenges in Implementing Recovery Projects

Status of FEMA Public Assistance Program and Hazard Mitigation Grant Program Funding in the USVI

As of June 30, 2019, FEMA obligated more than \$1.9 billion in grant funding for 640 projects through the (1) Public Assistance program and (2) Hazard Mitigation Grant Program in the USVI. First, FEMA obligated more than \$1.8 billion in Public Assistance grant funding for 618 projects across the USVI (see fig. 7).³¹ Specifically, FEMA obligated more than \$1.1 billion for emergency work projects (categories A and B), about \$588.5 million for permanent work projects (categories C through G), and about \$141.2 million for management costs (category Z). Of the approximately \$1.8 billion FEMA obligated in Public Assistance grant funding as of June 30, 2019, the USVI had expended nearly \$1.1 billion (59 percent) to reimburse subrecipients for completed work. Appendix I provides more detailed information on the status of Public Assistance grant funding in the USVI.

³¹These data include Public Assistance grant funding only and do not include obligations and expenditures for, among other federal disaster assistance programs, direct federal mission assignments, in which a federal agency is tasked with providing eligible emergency work or debris removal services to a territory or state, or for other categories of mission assignments.

Figure 7: Federal Emergency Management Agency's (FEMA) \$1.8 Billion in Public Assistance Grant Funding Obligated to the U.S. Virgin Islands by Category as of June 30, 2019



Source: Federal Emergency Management Agency's Emergency Management Mission Integrated Environment. | GAO-20-54

Notes: Numbers do not add up due to rounding. As of June 30, 2019, FEMA did not have any category D Public Assistance projects in the USVI. Emergency protective measures are activities to lessen the immediate threat to life, public health, or safety such as search and rescue operations and providing medical care and transport. Management costs are any indirect cost, any direct administrative cost, and any other administrative expense associated with a specific project. These data include Public Assistance program grant funding and do not include obligations and expenditures for, among other things, direct federal mission assignments, in which a federal agency is tasked with providing eligible emergency work or debris removal services to a territory or state, or for other categories of mission assignments. For example, these data do not include obligations for direct federal assistance through mission assignments for temporary emergency power and grid restoration efforts in the USVI.

Second, FEMA obligated about \$60.6 million for 22 Hazard Mitigation Grant Program projects in the territory as of June 30, 2019. These projects are designed to fund mitigation measures to increase the longer-term resilience of the USVI's infrastructure during future disasters. Of the

\$60.6 million FEMA obligated as of June 30, 2019, the USVI expended about \$1.7 million (3 percent) across 5 projects. Appendix II provides more detailed information on the status of Hazard Mitigation Grant Program funding in the USVI.

While these data represent the status of grant funding as of June 30, 2019, the amount of FEMA obligations and USVI expenditures for both programs will likely increase over time as additional projects are finalized and approved.

Limited Availability of Local USVI Personnel and Territory's Difficult Fiscal Situation Presented Challenges to Program Implementation

FEMA, USVI officials, and contractor personnel identified challenges across three areas that affected the implementation of the Public Assistance program and the Hazard Mitigation Grant Program in the USVI. Specifically, they cited: (1) the limited availability of local staff in the USVI to implement and oversee recovery programs, (2) the inability of local construction crews to undertake the large number of recovery projects, and (3) the impact of the USVI's difficult fiscal situation on recovery efforts.

Limited availability of local staff. USVI and FEMA officials cited the limited number of local USVI personnel with the knowledge and expertise necessary to staff recovery-related positions in key USVI agencies as a significant challenge following the 2017 hurricanes. For example, USVI officials told us that the Virgin Islands Territorial Emergency Management Agency—the agency initially responsible for overseeing all aspects of both the Public Assistance program and Hazard Mitigation Grant Program in the territory—did not have enough employees on staff to effectively implement and manage these programs. Further, a senior FEMA official noted that after the storms, the USVI had only one individual responsible for managing all aspects of the Hazard Mitigation Grant Program across the territory. In addition, the limited availability of local staff in the USVI was exacerbated by the departure of qualified individuals following the hurricanes as well as competition among recovery agencies to hire qualified staff that remained in the territory, according to USVI officials.

To address these challenges, the USVI hired two contractors to augment the territory's capacity in the shorter term and established a new Office of Disaster Recovery to oversee recovery efforts in the longer term. First, in December 2017, the USVI hired two contractors to assist the territory in planning, developing, implementing, and overseeing recovery projects,

among other responsibilities.³² Second, in February 2019, the USVI established the Office of Disaster Recovery as the primary territorial agency responsible for coordinating and overseeing all disaster recovery efforts in the USVI, including the Public Assistance program and Hazard Mitigation Grant Program.³³ The office's Director told us that while contractor personnel had been valuable in augmenting the USVI's capacity, the territory was prioritizing the hiring and training of qualified local hires to replace these contractors for the longer term.

Shortage of local construction crews. Due to the territory's relatively small population, FEMA and USVI officials stated there were not enough local construction crews to address the large amount of construction work required to repair and rebuild damaged infrastructure following the 2017 hurricanes. These officials told us this construction crew shortage affected the USVI's ability to keep Public Assistance program and Hazard Mitigation Grant Program projects proceeding on time. FEMA and contractor personnel stated that unlike in the contiguous United States, the USVI does not have neighboring states that can easily send construction crews to affected areas to augment local crews. In addition, historically, the USVI relied on Puerto Rico to supplement the territory's capacity, but this was not an option as Puerto Rico was undergoing its own massive recovery effort as a result of Hurricane Maria.

The USVI's fiscal situation. USVI officials and contractor personnel stated that the challenging fiscal situation in the territory directly affected its ability to effectively implement recovery programs.³⁴ Specifically, USVI officials told us that the territory's financial condition made it difficult to provide initial funding to reimburse subrecipients for completed work prior to drawing down funding from the account holding FEMA-obligated

³²First, Witt O'Brien's, LLC is tasked with providing high-level management of these programs as well as helping with the development and implementation of individual projects. For example, contractors are embedded with selected territorial agencies—such as the USVI Water and Power Authority—to provide targeted expertise in developing and managing projects for these agencies, according to contractor personnel. Second, Ernst and Young Puerto Rico, LLC is tasked with assisting the USVI to oversee recovery projects to ensure compliance with all applicable laws, regulations, and FEMA policies in the administration of federal grants.

³³Prior to the Office of Disaster Recovery's establishment in February 2019, the Virgin Islands Territorial Emergency Management Agency was responsible for overseeing the implementation of these programs.

³⁴In June 2019, we reported on the significant financial challenges facing the USVI. See [GAO-19-525](#).

money. These officials stated this process was problematic because instead of funding all eligible projects as quickly as possible to move the recovery forward, the USVI had to prioritize certain recovery projects over others based on the availability of funding. Further, USVI contractor personnel told us that the territory often does not have the cash on hand necessary to provide these reimbursements to subrecipients, which can result in delays in paying subrecipients and contractors. According to USVI officials, pursuing projects under the Public Assistance alternative procedures program may help to address these issues by providing more flexibility regarding when and how projects are funded.

Challenges Implementing the Public Assistance Alternative Procedures Program Have Delayed Recovery Projects in the USVI

The Public Assistance alternative procedures program provides the USVI with financial incentives and new flexibilities in implementing recovery projects that are not available through the standard Public Assistance program. However, FEMA and USVI officials stated that implementing the alternative procedures program in the USVI presented challenges that affected recovery efforts and delayed the obligation of funding for permanent work projects. Specifically, they cited challenges in (1) developing accurate fixed-cost estimates for program projects and (2) implementing the new flexibilities authorized by section 20601 of the Bipartisan Budget Act of 2018.³⁵ Senior USVI officials told us that due to these challenges and the financial risk associated with the use of fixed-cost estimates, the USVI is planning to take a cautious approach in pursuing alternative procedures projects. As established in FEMA guidance, USVI officials have a deadline of March 2020 to finalize the fixed-cost estimates for such projects for inclusion in the alternative procedures program.

Fixed-cost estimates. As the USVI is financially responsible for any actual costs that exceed the fixed-cost estimate for any given alternative procedures project, ensuring the accuracy of these estimates is critical due to the USVI's already difficult fiscal situation.³⁶ However, USVI officials told us that developing fixed-cost estimates that accurately forecast the future costs of completing large, complex permanent work

³⁵See Pub. L. No. 115-123, § 20601(1), 132 Stat. at 85; see also Pub. L. No. 116-20, tit. VI, § 601, 133 Stat. at 882.

³⁶As previously discussed, unlike in the standard Public Assistance program where FEMA will fund the actual cost of a project, the alternative procedures require awards for permanent work projects to be made using fixed-cost estimates.

projects in the remote island territory is difficult given the unique circumstances that influence construction costs in the USVI, such as the limited availability of local resources and the need to import construction materials and labor. To address this challenge, in October 2018, FEMA asked an independent contractor to analyze whether a USVI-specific “cost factor” should be incorporated into FEMA’s process for developing fixed-cost estimates to ensure the actual costs of implementing permanent work projects in the territory were captured.³⁷ According to FEMA officials, the independent contractor determined that a cost factor was appropriate for use in the USVI and the contractor proposed several options. However, territorial officials contended that these proposals did not sufficiently or accurately capture the unique circumstances that influence construction costs in the territory. Further, USVI officials stated that ensuring the accuracy of the cost factor was critical given the significant financial risk using fixed-cost estimates posed to the USVI.

Since incorporating a cost factor into the process for developing fixed-cost estimates increases the base cost for any given permanent work project—and therefore the amount of funding FEMA obligates—FEMA officials explained the USVI had an incentive to delay the obligation of projects until FEMA finalized this factor. As a result, FEMA officials told us in May 2019 that obligations for permanent work projects had been mostly on hold since October 2018 while the contractor worked to develop the USVI-specific cost factor. As the USVI is reliant on federal recovery funding to reimburse subrecipients for completed work, this delay in obligations directly affected the USVI’s ability to move recovery projects forward.

In May 2019, the contractor proposed a new cost factor, which FEMA approved on an interim basis pending further analysis.³⁸ In July 2019,

³⁷The independent contractor was commissioned to develop a cost factor designed to incorporate the cost of construction in the USVI specifically and the anticipated increase in labor, materials, and equipment costs associated with having a large volume of construction projects underway simultaneously, which will place a strain on local resources.

³⁸FEMA approved an interim cost factor of 1.51 until additional analysis can be completed. To develop a fixed-cost estimate using this interim cost factor, FEMA first uses the agency’s standard cost estimating process to determine the initial estimate for any given permanent work project. Next, FEMA multiplies this estimate by the USVI-specific cost factor of 1.51 to determine the fixed-cost estimate for the alternative procedures project. For example, if FEMA determined through its cost estimating process that a project would cost \$1 million, applying the interim cost factor would result in a final fixed-cost estimate of \$1.51 million for this alternative procedures project.

FEMA officials told us that while additional analyses are required to ensure its final process for developing fixed-cost estimates in the USVI accurately captures construction costs, using this interim cost factor in the meantime allows FEMA and USVI officials to move forward with the development and final approval of alternative procedures projects.³⁹ In August 2019, a senior USVI official told us the territory plans to begin using the interim cost factor, where appropriate, to keep projects progressing forward. However, she stated that the USVI questioned whether the interim cost factor did, in fact, sufficiently capture the actual costs of construction in the USVI.⁴⁰ Given the uncertainty around these fixed-cost estimates, USVI officials told us the territory will need to balance the potential flexibilities provided by the alternative procedures program with the financial risk posed by cost overruns when deciding whether to use the alternative procedures or the standard Public Assistance program for any given permanent work project.⁴¹ We are currently assessing FEMA’s process for developing cost estimates for projects under both the standard and alternative procedures programs, and plan to report our results in early 2020.

The Bipartisan Budget Act of 2018. While FEMA and USVI officials told us that section 20601 of the Bipartisan Budget Act presented a valuable opportunity to advance the USVI’s recovery, they also reported challenges with implementing the new flexibilities authorized by the Act,

³⁹According to agency documentation, these additional analyses include the development of a specific “future price factor” to capture the potential variances in the cost of construction over time. This factor is to be incorporated into FEMA’s process for developing fixed-cost estimates and is to be applied based on the anticipated construction schedule for any given project.

⁴⁰Further, according to this official, the USVI requested that FEMA retroactively amend all fixed-cost estimates using the interim factor once FEMA’s process for developing these estimates in the USVI was finalized.

⁴¹FEMA and the USVI are also considering projects that had already received obligations through the standard Public Assistance program for potential transition to the alternative procedures program. This process has required FEMA and USVI officials to reexamine the paperwork for these projects—including damage assessments, scopes of work, and especially cost estimates—to ensure all associated documentation is accurate and supports the final estimated cost for any given project. As of September 2019, FEMA officials told us this process was ongoing.

which made developing eligible permanent work projects difficult.⁴² For example, USVI officials stated that, at times, they were unclear about the implementation process for key components of the Act and thus ensuring subrecipients understood the process was difficult. Further, FEMA officials in the USVI told us that initially, they had difficulty obtaining clarification from FEMA headquarters regarding how to implement key provisions of the Act, such as the process for identifying and incorporating relevant industry standards for specific alternative procedures projects. As a result, permanent work projects that were eligible to use the flexibilities provided by the Act remained on hold until FEMA could clarify the process for implementing the Act and pertinent industry standards could be approved.⁴³

In addition, the Bipartisan Budget Act was signed into law in February 2018 and applies exclusively to federal disaster assistance to the USVI and Puerto Rico. As a result, FEMA officials faced the challenge of interpreting the Act's language and appropriately implementing its provisions for the first time. For example, the Act allows for a new process for determining whether a disaster-damaged facility is eligible to receive funding to (1) repair the existing facility or (2) replace the facility with a new structure. Under the standard Public Assistance program, this determination is calculated using the "50 percent rule"—if the cost of repairing the disaster-related damage sustained by the facility exceeds 50 percent of the cost of replacing it, FEMA may fund the replacement of the facility. In contrast, the Act does not provide a similar cost estimating process for use in developing fixed-cost estimates through the alternative procedures program. In September 2018, FEMA issued guidance for implementing section 20601 of the Bipartisan Budget Act through the Public Assistance alternative procedures program, which provides that critical services infrastructure—such as medical and educational facilities—is eligible for replacement "if repair is feasible, but replacement is more prudent." FEMA officials in the USVI told us that since the agency

⁴²Section 20601 of the Bipartisan Budget Act of 2018 allows FEMA to provide grant funding to restore certain disaster-damaged systems and infrastructure without regard to the condition it was in prior to the 2017 hurricanes. The Act applies only to assistance provided through the Public Assistance alternative procedures program. Therefore, the USVI may not use the flexibilities provided by the Act for permanent work projects using the standard Public Assistance program.

⁴³In addition, the fixed-cost estimate for any eligible permanent work project cannot be developed until all work associated with the Bipartisan Budget Act was identified and incorporated into the project's scope of work.

did not have further guidance or criteria on the appropriate process for evaluating repair or replacement under this new standard, they were responsible for developing the agency's first justification to support the replacement of a hospital in St. Croix based on their interpretation of the new standard. These officials also stated that since their rationale justifying the facility's eligibility for replacement was the first of its kind and would set a precedent for future projects, they submitted it to FEMA headquarters for review. In May 2019, FEMA officially approved the replacement of this hospital through the alternative procedures program. For more information on how the Public Assistance program and the Bipartisan Budget Act are affecting recovery efforts at this facility, see appendix III.

The Additional Supplemental Appropriations for Disaster Relief Act of 2019, which was signed into law in June 2019, provides additional direction to FEMA regarding the implementation of section 20601 of the Act.⁴⁴ Among other things, this legislation includes a provision directing FEMA to change its process for determining whether a disaster-damaged facility is eligible for repair or replacement.⁴⁵ FEMA evaluated this and other provisions of the Act and, in September 2019, issued an updated policy to provide clear guidance moving forward, according to agency officials.

The USVI Governor and senior territorial officials stated that due to the challenges outlined above and the financial risk posed by exceeding fixed-cost estimates, the USVI plans to take a cautious approach in implementing the Public Assistance alternative procedures program. Specifically, the Governor told us the territory will most likely pursue alternative procedures projects that are simple, have clear scopes of work, and do not include high levels of uncertainty to reduce the financial risk of potential cost overruns. USVI officials added that if they are not comfortable with the fixed-cost estimate for any given alternative procedures project, the territory has the option to pursue the project under the standard Public Assistance program. Under the standard program, the USVI cannot take advantage of the flexibilities and financial incentives provided by the alternative procedures and the Bipartisan Budget Act, but

⁴⁴See Pub. L. No. 116-20, tit. VI, § 601, 133 Stat. at 882.

⁴⁵This legislation directs FEMA to "include the costs associated with addressing pre-disaster condition, undamaged components, codes and standards, and industry standards in the cost of repair" when calculating the 50 percent rule to determine whether a facility should be repaired or replaced.

FEMA would reimburse the USVI for the actual cost—including any cost overruns—of all work completed in accordance with a project’s approved scope of work, thereby mitigating the territory’s financial risk. The USVI is ultimately responsible for deciding whether the benefits provided through the alternative procedures program and the Bipartisan Budget Act outweigh the financial risk associated with agreeing to fixed-cost estimates for permanent work projects. Since the territory has until March 2020 to finalize these fixed-cost estimates, it remains too early to determine the extent to which the alternative procedures program will play a role in the USVI’s long-term recovery strategy.

FEMA Discontinued the STEP Pilot Program After Expanding It in the USVI, but Has Not Evaluated Options for Providing Future Emergency Sheltering Assistance

FEMA Expanded the STEP Pilot Program in the USVI

In October 2017, FEMA authorized the STEP pilot program in the USVI in response to the widespread damage to homes that displaced residents and overwhelmed sheltering and temporary housing resources in the territory.⁴⁶ Through the program, FEMA funded minimal, temporary protective repairs (or “Phase I” repairs) to private homes to allow residents a safe place to shelter.⁴⁷ For example, Phase I emergency repairs included applying temporary patches to roofs and windows to

⁴⁶Temporary housing resources refer to other types of accommodations for disaster survivors such as hotels and schools.

⁴⁷FEMA may provide assistance essential to meeting immediate threats to life and property resulting from a major disaster, including performing work or services essential to saving lives and protecting and preserving property or public health and safety pursuant to Section 403 of the Stafford Act, as amended. See also 42 U.S.C. § 5170b(a)(3); 44 C.F.R. § 206.225.

protect the interior from outside weather conditions and ensuring a functional kitchen and bathroom and safe sleeping area. According to FEMA documentation, the intent of these minimal temporary repairs was to quickly make damaged homes habitable in the short term until homeowners could complete more permanent repairs independently through other FEMA programs or using private insurance payments.

In August 2018, FEMA expanded the STEP pilot program to include the “permanent” repair or replacement of damaged roofs (or “Phase II” work)—the first time in its history that FEMA authorized such work through this pilot program. Phase II work funded more permanent work on USVI residents’ damaged roofs—either by repairing damages to the existing roof or replacing it with a new one. In addition, Phase II work included incorporating roof hardening measures, such as installing hurricane clips to the roof berms, to increase the resiliency of the roofs against hurricane-force winds. Figure 8 provides two examples of USVI homes that participated in Phase II of the STEP pilot program.

Figure 8: Two Examples of Homes that Received Phase II Roof Replacements Through the Sheltering and Temporary Essential Power (STEP) Pilot Program in the U.S. Virgin Islands as of March 2019



Home undergoing permanent roof replacement through Phase II of the STEP pilot program.



Home with completed permanent roof replacement through Phase II of the STEP pilot program, which included the installation of hurricane clips to increase the roof’s resiliency during hurricane-strength winds.

Source: GAO. | GAO-20-54

FEMA expanded the STEP pilot program to address the USVI’s unique, longer-term sheltering needs. Specifically, as the 2018 hurricane season

arrived, FEMA was faced with the challenge of ensuring adequate sheltering options were available to USVI residents in the event that another hurricane struck the territory. The following factors contributed to FEMA's decision to expand the STEP pilot program:

- **Infeasibility of other sheltering programs.** Alternate sheltering options were not viable in the USVI due to the unique circumstances in the territory. For example, the Transitional Sheltering Assistance program—where FEMA funds non-congregate sheltering (typically in hotels or motels) for displaced residents who cannot safely return to their homes—was not a feasible option as there was only one operating hotel in the USVI capable of sheltering disaster survivors.⁴⁸ Further, FEMA officials told us that temporary housing units—such as manufactured housing units or recreational vehicles—could not be deployed to supplement the territory's available housing stock due to logistical challenges, including the prohibitive costs of shipping these units to the remote territory and the limited availability of space to install them.⁴⁹
- **Operation Blue Roof caused additional damage to homes.** According to FEMA officials, FEMA's decision to allow homes that had received temporary blue tarps as an emergency roofing measure through Operation Blue Roof to be eligible for the STEP pilot program led to expanding the scope of allowable work funded by the program.⁵⁰ FEMA and USVI officials told us this change was

⁴⁸For this reason, following the hurricanes, the USVI did not request the use of the Transitional Sheltering Assistance program. Further, FEMA officials stated that the USVI did not request to use the Transitional Sheltering Assistance program with additional FEMA-funded transportation assistance, which would fund the relocation of residents to hotels or other sheltering options outside the USVI. Congregate sheltering is any private or public facility that provides a safe, sanitary, and secure environment for individuals and households displaced by disasters to find temporary emergency shelter.

⁴⁹Manufactured housing units are manufactured homes or other readily-fabricated dwellings (e.g., a pre-fabricated dwelling) owned by FEMA and provided to eligible survivors for use as temporary housing for a limited time. FEMA also stated that the agency can provide non-congregate sheltering in tents, however, this option was not feasible in the USVI due to challenges with shipping and distributing the tents and limited space for erecting them.

⁵⁰Operation Blue Roof is a U.S. Army Corps of Engineers program that installs blue tarps on the roofs of private homes as a temporary, emergency protective measure to protect the interior from outside weather conditions and allow residents to shelter at home. Since the STEP pilot program funds similar temporary roofing measures, FEMA initially considered homes that participated in Operation Blue Roof to be ineligible for the STEP pilot program.

implemented to address several issues with the blue tarps installed on homes, including the temporary nature of the tarps—which had a post-installation lifespan of only 30 days—and the need to fix the damage caused by installing the blue tarps on undamaged sections of roofs.⁵¹ FEMA officials stated that expanding the STEP pilot program to conduct more permanent roof repairs on these homes helped to ensure homeowners were able to safely shelter in the event of another hurricane.

- **Shortage of construction crews.** As previously discussed, FEMA and USVI officials cited the limited number of construction crews available to implement recovery work as a challenge, including for the STEP pilot program. Specifically, this challenge made it difficult for private homeowners to independently hire qualified contractors to conduct permanent repairs to their homes, according to FEMA officials. Therefore, these officials explained that using Phase II of the STEP pilot program to manage contractors in an official capacity made it more likely that necessary permanent repairs would be completed in a timely manner.
- **Evacuation was not an option.** When requested, FEMA is responsible for providing safe sheltering options following a disaster and, in the absence of feasible local sheltering options, FEMA is responsible for evacuating residents to a safe location outside the potentially affected area. However, according to FEMA documentation, developing and executing a plan to evacuate the USVI's more than 100,000 residents in the event of another hurricane was impractical.

Given these factors and the risk of another hurricane, FEMA officials determined that authorizing Phase II roof repairs or replacements of a permanent nature represented an appropriate solution to ensure eligible program participants could safely shelter in their homes.

The STEP pilot program in the USVI officially ended on April 15, 2019. FEMA reported that 7,381 homes ultimately received repairs through the

⁵¹FEMA and USVI officials stated that the blue tarps were designed for shingle roofs common in the contiguous United States that would not be damaged by installation. When the U.S. Army Corps of Engineers secured the blue tarps to undamaged parts of the roof in the USVI, the nails created an unsealed hole in the corrugated steel roofs that leaked when it rained. Further, FEMA officials stated that repairing the roofs was sometimes necessary to reconnect the home to a water supply since many homes in the territory are not connected to the municipal water system, but instead use the roofs to direct rain water into cisterns.

program. Specifically, 6,372 homes received Phase I temporary repairs and 1,631 homes received Phase II roof repairs or replacements of a permanent nature.⁵² In addition, 622 homes received both Phase I and Phase II repairs. According to FEMA officials, the agency is now conducting the close-out process for the STEP pilot program in the USVI, which includes reviewing the paperwork for each participating home to ensure all work was completed in accordance with both the home's approved scope of work and overall programmatic requirements.⁵³

FEMA Has Decided Not to Use the STEP Pilot Program During Future Recovery Efforts, but Has Not Evaluated Its Options for Providing Similar Emergency Sheltering Assistance

In May 2019, FEMA's Chief Counsel stated that FEMA had decided to discontinue the STEP pilot program due to significant challenges and lessons learned from prior experiences implementing the program.⁵⁴ Specifically, FEMA stated that while FEMA had implemented the STEP pilot program within its authority pursuant to Section 403 of the Stafford Act, the agency was no longer "comfortable from a legal, policy, or pragmatic perspective" with implementing the STEP pilot program following future disasters.

FEMA cited two main challenges in implementing the program in the USVI and elsewhere: (1) limiting the program's scope to provide only minimal, emergency repairs, as intended, and (2) completing these emergency repairs in a timely manner. First, FEMA stated that in multiple iterations of the STEP pilot program—including in the USVI—FEMA officials had "succumbed to the pressure" from state and territorial leaders to expand the scope of allowable repairs under the program to conduct more extensive repairs. For example, in the USVI specifically, although

⁵²In addition, FEMA officials stated that 12 homes that received Phase I repairs and 32 homes that received Phase II repairs were not completed by the April 15, 2019, deadline and therefore are no longer eligible to receive STEP pilot program funding. Further, these officials explained that the total number of eligible participants will likely change as FEMA conducts its close-out process for each participating home.

⁵³In June 2019, FEMA notified the USVI that it was conducting a review of the USVI's expenditures for the STEP pilot program to ensure that the territory provided reimbursements for eligible work only. Further, FEMA informed the USVI that it was implementing a new process where FEMA must approve all future USVI requests to draw down funding to pay for completed work through the program. USVI officials stated in July 2019 that they are working with FEMA officials to understand the reasons behind FEMA's decision to implement this new process.

⁵⁴FEMA's Chief Counsel provided this information in response to our request that FEMA provide a legal justification and programmatic rationale for expanding the STEP pilot program to include Phase II repairs in the USVI.

expanding the program to authorize permanent roof repairs was legally supportable and represented an earnest effort to meet the territory's needs, the expansion did "push the boundaries of appropriateness" and increased FEMA's risk of interfering with the agency's authority to provide assistance through other FEMA programs.⁵⁵

Second, FEMA stated that the lengthy process for delivering the STEP pilot program—including in the USVI—undercut the program's stated intent of providing emergency sheltering within 3 to 4 months following a disaster. For example, while FEMA authorized the program in the USVI in October 2017, initial repairs did not begin until March 2018 and eligible work was not completed until April 2019—18 months after the program's authorization. According to FEMA, completing STEP pilot program repairs took longer than intended across most instances of the program's implementation due to the amount of time required to develop disaster-specific program guidance, hire a large number of construction crews to undertake the repair work, obtain the necessary permissions from homeowners, and ultimately complete the repairs.⁵⁶ Given the STEP pilot program's protracted period of implementation, FEMA stated the agency had not been successful in ensuring that program repairs provided disaster survivors with emergency shelter in a timely manner.

FEMA's decision to discontinue the STEP pilot program following future disasters raises questions about how the agency plans to address the emergency sheltering needs of disaster survivors in the future—especially in communities that face challenges and circumstances similar to those

⁵⁵FEMA has specific authority in Section 408 of the Stafford Act to provide financial assistance to individual disaster survivors to rent temporary housing and to pay for repairs to their disaster-damaged homes, which is implemented through FEMA's Individual Assistance program. See 42 U.S.C. § 5174. As discussed above, the STEP pilot program was authorized under Section 403 of the Stafford Act, which authorizes FEMA to provide assistance essential to meeting immediate threats to life and property resulting from a major disaster. See 42 U.S.C. § 5170b. Through the STEP pilot program, FEMA provided financial assistance that was also used to fund repairs to disaster-damaged homes. In that case, the financial assistance was provided directly to the state or territory to pay for repairs to damaged homes that were carried out by the state or territory rather than to individual applicants through the Individual Assistance program under FEMA's Section 408 authority.

⁵⁶In the USVI specifically, multiple time extensions were necessary due to the programmatic changes that occurred during the program's implementation. For example, in certain cases, representatives from FEMA, the USVI, and the contractor had to conduct multiple inspections on the same homes (i.e., two separate eligibility inspections for homes that underwent both Phase I and Phase II repairs).

the program was specifically designed to address. Since implementing it in 2012, FEMA used the STEP pilot program to supplement other FEMA sheltering programs and provide necessary additional capacity to help address the emergency sheltering needs of disaster-affected communities, as described below.⁵⁷ In certain cases, the program provided assistance to more disaster survivors than other relevant FEMA programs, including the Transitional Sheltering Assistance program and the provision of temporary housing units.⁵⁸ FEMA implemented the STEP pilot program in the following locations:

- **Louisiana:** FEMA authorized the STEP pilot program to supplement other federal programs implemented in Louisiana following severe storms and flooding in 2016. Specifically, the Transitional Sheltering Assistance program was not a viable option for most survivors, partially due to the limited availability of hotels and motels in the affected area, and FEMA ultimately used this program for approximately 4,300 households.⁵⁹ In addition, FEMA deployed temporary housing units for approximately 4,600 households. FEMA also funded repairs through the STEP pilot program for nearly 11,000 homes.
- **Texas:** FEMA authorized the STEP pilot program to supplement other federal programs in Texas following Hurricane Harvey in 2017. Specifically, FEMA determined that implementing the STEP pilot program provided a useful option since the number of displaced survivors significantly exceeded the available capacity for sheltering survivors in local hotels and motels. FEMA used the Transitional Sheltering Assistance program for approximately 55,000 households and deployed temporary housing units for more than 3,500

⁵⁷The STEP pilot program also provided additional benefits for disaster survivors that other sheltering programs could not, such as allowing survivors to remain in their homes—close to their places of work and children’s schools—while allowing them to supervise permanent repairs to their homes.

⁵⁸The Transitional Sheltering Assistance program is an emergency sheltering program authorized under Section 403 of the Stafford Act, which authorizes FEMA to provide assistance essential to meeting immediate threats to life and property resulting from a major disaster. See 42 U.S.C. § 5170b. In addition, FEMA is authorized under Section 408 of the Stafford Act to provide direct temporary housing assistance—including the use of temporary housing units—to eligible applicants whose primary residence is uninhabitable as a result of a major disaster. See 42 U.S.C. § 5174.

⁵⁹A household refers to owners and renters of a residence, and any other occupants of the residence.

households. FEMA supplemented these programs by funding repairs through the STEP pilot program for approximately 15,700 homes.

- **Puerto Rico:** FEMA authorized the STEP pilot program to address the unique emergency sheltering needs in Puerto Rico following Hurricanes Irma and Maria in 2017. Specifically, FEMA determined that approximately 80 percent of the island did not have power and would not have it restored for an extended period of time. As a result, FEMA implemented the STEP pilot program to, among other repairs, reconnect homes to a functioning electricity grid or, as necessary, fund the installation of generators if the grid could not be restored in a timely manner.⁶⁰ Further, similar to what occurred in the USVI, FEMA authorized the STEP pilot program to repair homes that participated in Operation Blue Roof to address the roof damage caused by the installation of the blue tarps. FEMA funded repairs through the STEP pilot program for nearly 108,500 homes in Puerto Rico. In addition, due to the lack of available hotels and motels in Puerto Rico, participation in FEMA's Transitional Sheltering Assistance program was limited to approximately 7,000 households, most of which were relocated to hotels and motels in the contiguous United States. Further, as detailed below, FEMA implemented its new Voluntary Agencies Leading and Organizing Repair program for the first time in Puerto Rico to conduct repairs to approximately 4,600 homes.⁶¹
- **North Carolina:** FEMA authorized the STEP pilot program to address the particular emergency sheltering needs in North Carolina following Hurricane Florence in 2018. FEMA amended the STEP pilot program to allow both contracted construction crews and voluntary organizations to conduct the repairs, and ultimately funded repairs through the program for approximately 2,200 homes. In addition, FEMA used the Transitional Sheltering Assistance program for more than 870 households and deployed temporary housing units for approximately 650 households.

Overall, FEMA authorized the STEP pilot program following 8 declared disasters since 2012 and obligated approximately \$2.6 billion to fund

⁶⁰The hurricanes damaged much of Puerto Rico's electricity grid. In April 2019, we reported that it took roughly 11 months for power to be restored to all customers able to receive power, which represented the longest blackout in U.S. history. See [GAO-19-296](#).

⁶¹FEMA's Voluntary Agencies Leading and Organizing Repair program provides funding to cover the costs of building materials which volunteer agencies then use to conduct repairs to private homes that are similar to those conducted through the STEP pilot program.

repairs to more than 167,000 disaster survivors' homes, according to FEMA documentation.⁶² While the program may not have provided repairs as rapidly as FEMA intended, these repairs nonetheless played a significant role in ensuring these disaster survivors could safely shelter in their homes.

Since discontinuing the program, FEMA has not evaluated its options for addressing the emergency sheltering needs of disaster survivors.⁶³ FEMA stated that it continues to support the use of congregate sheltering and will consider authorizing the Transitional Sheltering Assistance program, among other options, to address disaster survivors' needs following future disasters. However, as detailed above, FEMA used the STEP pilot program for the specific purpose of providing necessary additional capacity to supplement these and other federal programs. Further, in certain cases, the STEP pilot program was used when implementing these other programs was unfeasible, such as in the USVI and New York where the particular circumstances on the ground made using the Transitional Sheltering Assistance program or deploying temporary housing units impractical.

FEMA officials also told us the agency could utilize voluntary organizations to a greater extent than in the past to conduct the same types of repairs provided through the STEP pilot program. Specifically, FEMA officials stated that the Voluntary Agencies Leading and Organizing Repair program—which was implemented in Puerto Rico in response to the 2017 hurricanes and used to repair about 4,600 homes—could be used for this purpose following future disasters. However, given the program's limited implementation, it is too early to determine the extent to which it represents a feasible solution for addressing emergency sheltering needs, or is capable of providing assistance on as large a scale as other federal programs, such as the STEP pilot program that funded repairs on more than 100,000 homes in Puerto Rico alone. Further, in North Carolina—where FEMA amended the STEP pilot program to allow both hired construction crews and voluntary organizations to conduct the

⁶²FEMA implemented the STEP pilot program in Florida, Louisiana, New Jersey, New York, North Carolina, Puerto Rico, Texas, and the USVI.

⁶³In June 2019, FEMA officials told us the agency was in the very early stages of conducting a high-level assessment of its Individual Assistance program. While this program does include a housing assistance component, among other things, FEMA officials told us that this assessment will not evaluate FEMA's options for addressing the emergency sheltering needs the STEP pilot program was designed to address.

repairs—the number of homes repaired by the construction crews—about 2,000—far exceeded the number of homes repaired by voluntary organizations—about 150—which raises questions about the ability of voluntary organizations to undertake the large volume of repairs necessary following disasters.

Standards for Internal Control in the Federal Government states that management should identify, on a timely basis, significant changes to internal conditions that have already occurred, including changes to the entity's programs or activities.⁶⁴ Further, management should identify, analyze, and respond to risks related to achieving the entity's defined objectives. FEMA has not assessed how its decision to discontinue the STEP pilot program will affect its ability to provide emergency sheltering assistance following future disasters. While FEMA officials told us they plan to use other sheltering programs when the next disaster strikes, these programs may not be sufficient in addressing the emergency sheltering needs of disaster survivors, especially in communities where implementing such programs is not feasible. FEMA officials also stated that given the agency's decision to discontinue the STEP pilot program, conducting a broad evaluation of FEMA's emergency sheltering programs and the agency's options for addressing emergency sheltering needs would be useful to ensure that FEMA is prepared to respond effectively to future disasters. Conducting such an evaluation would help FEMA understand its ability to provide sheltering options and to properly plan for the provision of effective emergency sheltering assistance to disaster-affected communities.

⁶⁴[GAO-14-704G](#).

The USVI and FEMA Established Structures for Overseeing Recovery Efforts, but FEMA Has Not Consolidated Hazard Mitigation Grant Program Monitoring Guidance

The USVI and FEMA Have Structures in Place for Overseeing Recovery Activities

USVI. As the recipient of federal disaster funding, the USVI is responsible for providing oversight over the Public Assistance program and Hazard Mitigation Grant Program to ensure they are implemented in compliance with applicable laws and regulations, as well as FEMA policies and guidance.⁶⁵ Following the 2017 hurricanes, the USVI took steps to address its responsibilities for receiving grant funding through these programs, including by: (1) developing administrative plans, (2) designating two territorial entities to manage the administration of disaster recovery funding, and (3) establishing the new Office of Disaster Recovery.

First, as required by FEMA, the USVI developed administrative plans for the Public Assistance program and Hazard Mitigation Grant Program to ensure that subrecipients are in compliance with the conditions of these grant programs. These plans outline programmatic and project monitoring activities as well as the financial and administrative procedures for both programs. The plans require, among other things, the USVI to submit quarterly progress and financial reports on the status of projects to FEMA and describe the USVI's specific roles and responsibilities for implementing and overseeing these two programs.

Second, the Governor of the USVI designated two territorial entities to manage and oversee the implementation of recovery programs—the

⁶⁵Federal regulations adopted by DHS that govern federal awards require that recipients of federal awards, including states and territories, must monitor subrecipients to ensure they are aware of, and comply with, federal regulations. See 2 C.F.R. § 200.331.

Virgin Islands Territorial Emergency Management Agency as the programmatic manager and the governor's authorized representative as the grant administrator for all federal recovery funding in the USVI.⁶⁶ Among other responsibilities, these entities are responsible for ensuring that Public Assistance program and Hazard Mitigation Grant Program participants are in compliance with all programmatic and administrative requirements.⁶⁷ For example, the Virgin Islands Territorial Emergency Management Agency is responsible for, among other things, preparing and submitting quarterly progress and financial reports to FEMA for certain Public Assistance program projects and for all Hazard Mitigation Grant Program projects.⁶⁸ In addition, the governor's authorized representative is responsible for ensuring the territory's compliance with all requirements outlined in the FEMA-approved administrative plans.

Third, in February 2019, the USVI's new Office of Disaster Recovery assumed responsibility for overseeing the Public Assistance program and Hazard Mitigation Grant Program, including tracking and reporting on the progress of individual projects and overseeing the submission of reimbursement requests for completed work.⁶⁹ The office is also

⁶⁶Federal regulations require that the Governor designate a Governor's Authorized Representative to administer federal disaster assistance programs on behalf of the USVI. See 44 C.F.R. § 206.41(d).

⁶⁷For Public Assistance projects, to comply with the requirements of 2 C.F.R. § 200.331, monitoring and reporting program performance, among other things, recipients are responsible for managing the day-to-day operations of grant and subgrant supported activities. Recipients must monitor grant and subgrant supported activities to assure compliance with applicable federal requirements. For Hazard Mitigation Grant Program projects, to comply with 44 C.F.R. § 206.438, recipients have primary responsibility for project management and accountability of funds. The territory is responsible for ensuring that subrecipients meet all program and administrative requirements.

⁶⁸Quarterly progress reports provide information on the status of individual projects, such as: (1) the amount of grant funding obligated; (2) the progress of work; (3) the anticipated or actual completion date; and (4) any time extensions that have been approved. In addition, any problems or challenges that may delay the project will also be described in the report. Quarterly financial reports provide key information on the financial status of individual projects, including the amount of grant funding expended—or drawn down—by the USVI to reimburse subrecipients for completed work, among other information. FEMA and USVI officials use these reports to evaluate the progress and financial condition of individual projects.

⁶⁹According to Office of Disaster Recovery documentation, the responsibilities for this office include: (1) the monitoring of projects by coordinating with all entities receiving federal disaster funding; (2) overseeing the fiscal and operational activity of federal funds; and (3) maintaining a centralized website to provide disaster recovery data for public access. The Director of the Office of Disaster Recovery was officially appointed to the role of governor's authorized representative in the USVI on February 20, 2019.

responsible for monitoring and publicly reporting the status of federal recovery funding at <http://www.usviodr.com/>.⁷⁰ In addition, according to the office's Director, her team also meets with FEMA officials on a bi-weekly basis to discuss recovery activities more generally and raise any potential issues for discussion, such as challenges with submitting quarterly progress and financial reports to FEMA in a timely manner.

FEMA. FEMA officials at the USVI, regional, and headquarters level are responsible for overseeing the USVI's implementation of federal recovery programs. Specifically, once FEMA obligates grant funding for a project, FEMA officials on the ground in the USVI are responsible for the day-to-day monitoring of individual projects using a variety of tools.⁷¹ For example, FEMA officials stated they use the information included in quarterly progress and financial reports to help ensure that subrecipients are in compliance with applicable federal requirements and that potential problems are identified and addressed in a timely manner. Further, FEMA officials are to conduct quarterly meetings with USVI officials to ensure regular communication and coordination and to discuss program implementation, raise potential challenges, and identify solutions.

In addition to monitoring ongoing projects, FEMA officials in the USVI are responsible for managing the process for closing out Public Assistance program and Hazard Mitigation Grant Program projects that have been completed. To facilitate this close-out process, the USVI is to compile all required documentation for an individual project and submit this paperwork to FEMA. FEMA is to review the documentation to ensure that all work has been completed in accordance with the project's scope of

⁷⁰The Office of Disaster Recovery launched this website on July 22, 2019. Prior to this date, this information was publicly reported through a website maintained by the USVI Public Finance Authority.

⁷¹According to FEMA Manual 205-0-1, Grants Management (Approval date: 01/23/2018), monitoring is defined as the review of recipient compliance with grant requirements, including those in statutes, regulations, policies, and award terms and conditions; and, review of grant progress on approved work and expenditure of funds as needed.

work as well as relevant laws, federal regulations, and program requirements.⁷²

FEMA Region II officials and FEMA officials in the Grant Programs Directorate in headquarters also provide higher-level oversight of Public Assistance program and Hazard Mitigation Grant Program implementation. For example, FEMA Region II officials stated they analyze the USVI's quarterly financial reports to identify patterns that may indicate financial challenges, such as irregularities in the amount of funding the USVI has drawn down for projects or an excess or lack of reimbursements to subrecipients for completed work.⁷³ At FEMA headquarters, officials in the Grant Programs Directorate stated they assess the financial condition of projects annually to identify potential challenges in administering grant funding and may enhance monitoring efforts as needed. These officials stated they also review the timeliness, completeness, and accuracy of information submitted in quarterly reports to help monitor project milestones and identify potential challenges that require FEMA's attention.

FEMA Has a Consolidated Standard Operating Procedures Document for Monitoring Public Assistance Projects, but Not for Hazard Mitigation Grant Program Projects

FEMA has issued numerous documents that provide useful information and guidance for implementing and monitoring the Public Assistance program and the Hazard Mitigation Grant Program, such as program and policy documents, fact sheets, job aids, and operational manuals. For example, one document for monitoring the Public Assistance program is the *Public Assistance Program Management and Grant Closeout Standard Operating Procedure*. This standard operating procedures document provides FEMA officials across all disasters nationwide with a common understanding of the expectations and requirements for managing projects. It also clearly and concisely outlines the roles and responsibilities, requirements, key tasks and milestones, and performance measures associated with monitoring and closing out Public

⁷²Specifically, according to the January 2018 FEMA Grants Management Manual, FEMA officials must determine that the subrecipient has completed all required activities outlined in the project's scope of work and that they have completed all applicable administrative actions related to the project. This status is reached after financial reconciliation has occurred, meaning that all systems have been reconciled with actual expenditures as detailed on the final Federal Financial Report.

⁷³FEMA Region II officials and agency officials in the USVI stated they also monitor weekly spend plan reports provided by FEMA's Office of the Chief Financial Officer to assess the status of obligations and draw downs for individual recovery projects.

Assistance program projects. However, FEMA has not developed a similar consolidated standard operating procedures document to provide a clear and concise roadmap for monitoring and closing out projects under the Hazard Mitigation Grant Program.

In July 2019, FEMA officials in headquarters and FEMA Region II told us that guidance on key policies and procedures for managing FEMA's varied hazard mitigation efforts can be found across multiple sources. However, these officials stated that FEMA has not consolidated this guidance into a single document for FEMA-wide use that focuses on the oversight of Hazard Mitigation Grant Program projects specifically. Further, FEMA's existing guidance documents do not provide a concise roadmap that outlines roles and responsibilities, key tasks and milestones, and performance measures for FEMA officials to use when monitoring and closing out individual program projects for any given disaster. For instance, the *Hazard Mitigation Assistance Guidance* includes information on many topics, such as program eligibility requirements; roles and responsibilities for recipient and subrecipient personnel; and oversight requirements spanning three separate FEMA mitigation programs.⁷⁴ Likewise, FEMA's 250-page *Hazard Mitigation Field Operations Guide* includes operating procedures, descriptions of major tasks for mitigation positions, and job aids, including samples and templates of tools to help hazard mitigation staff implement defined tasks. While these and other FEMA documentation collectively provide important information regarding the agency's broader hazard mitigation efforts, they are not focused specifically on the Hazard Mitigation Grant Program, or the detailed processes FEMA officials on the ground should use to conduct the day-to-day monitoring of individual projects. Further, these documents do not detail the use of performance measures in effectively monitoring Hazard Mitigation Grant Program projects—information that is included in FEMA's standard operating procedures document for the Public Assistance program.

⁷⁴FEMA administers two hazard mitigation assistance programs in addition to the Hazard Mitigation Grant Program. The Pre-Disaster Mitigation program—authorized by Section 203 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended—provides funds for hazard mitigation planning and projects on an annual basis. The Flood Mitigation Assistance program—authorized by Section 1366 of the National Flood Insurance Act of 1968, as amended—provides funds for planning and projects to reduce or eliminate risk of flood damage to buildings that are insured under the National Flood Insurance Program on an annual basis.

When we asked FEMA officials responsible for implementing the program in the USVI why the agency had not developed a consolidated standard operating procedures document specific to the Hazard Mitigation Grant Program, they stated that developing this document had not been a priority for the agency—which could be due to the relatively small size of this program compared to larger and more complex recovery programs, such as the Public Assistance program. Although FEMA obligates more funding through the Public Assistance program, the Hazard Mitigation Grant Program nonetheless plays a critical role in ensuring that disaster-affected communities can undertake mitigation measures specifically designed to enhance the resilience of their infrastructure during future disasters.

Standards for Internal Control in the Federal Government states that management should document in policies and procedures each unit's responsibility for an operational process's objectives in the appropriate level of detail to allow management to effectively monitor the control activity.⁷⁵ In addition, these standards state that management should define objectives in specific and measurable terms so they are understood at all levels of the organization. This includes clearly defining what is to be achieved, who is to achieve it, how it will be achieved, and the timeframes for achievement. Further, leading practices identified in the Program Management Institute's *Standard for Program Management* call for agencies to develop a program roadmap outlining information on the program's intended direction and providing a set of documented success criteria for each key milestone and decision point.⁷⁶ This roadmap can be a valuable tool for managing the execution of the program and for assessing the program's progress toward achieving its goals. FEMA's consolidated standard operating procedures document for the Public Assistance program provides such a roadmap, stating that FEMA's main goal is to provide effective assistance and excellent customer service necessary to assist disaster-affected communities to recover while also ensuring the responsible stewardship of public funds.

FEMA does have guidance on key policies and procedures for managing its hazard mitigation efforts, including through the Hazard Mitigation Grant Program. However, FEMA could further strengthen its existing guidance

⁷⁵[GAO-14-704G](#).

⁷⁶Project Management Institute, Inc., *The Standard for Program Management*®, Third Edition.

by consolidating this information into a single document for FEMA-wide use, similar to the one FEMA uses for the Public Assistance program. FEMA officials told us that having a detailed standard operating procedures document for the Hazard Mitigation Grant Program that clearly and concisely outlined roles and responsibilities, key objectives and tasks, and milestones for conducting monitoring and close-out activities would be helpful in effectively overseeing program projects. In addition to FEMA officials, the governor's authorized representative in the USVI also told us that such a document would help to ensure that both FEMA and USVI officials are following the necessary procedures and guidance when conducting program management and close-out activities. Assessing the need for such a consolidated standard operating procedures document for the Hazard Mitigation Grant Program would help FEMA determine whether existing guidance should be strengthened to ensure that agency officials across all disasters are using a consistent approach in carrying out their responsibilities under the program.

Conclusions

As of June 30, 2019, FEMA had obligated more than \$1.9 billion in grant funding through the Public Assistance program and Hazard Mitigation Grant Program to help the USVI recover from the catastrophic 2017 hurricane season. As part of the Public Assistance program, FEMA authorized the STEP pilot program in the USVI—and in other locations—to supplement other FEMA programs and provide necessary additional capacity to help address the emergency sheltering needs of disaster survivors. While FEMA decided to discontinue the STEP pilot program, the agency has not evaluated how this decision will affect its ability to provide emergency sheltering assistance in the future. FEMA has a responsibility to provide assistance, when requested, to address the emergency sheltering needs of disaster survivors. Given that FEMA will no longer use the STEP pilot program, taking steps to evaluate its options for addressing these needs will help FEMA to assess its capacity for providing effective emergency sheltering assistance in the future and to properly plan for when the next disaster inevitably strikes.

In addition, FEMA has issued numerous policy documents, guides, and other useful documents to assist FEMA officials to effectively monitor and oversee Hazard Mitigation Grant Program projects. However, FEMA has not developed a consolidated standard operating procedures document specific to the Hazard Mitigation Grant Program that provides a clear and concise roadmap for FEMA officials' use in monitoring individual projects. Assessing the need for a consolidated roadmap for agency-wide use would help FEMA determine whether existing guidance for effectively

monitoring Hazard Mitigation Grant Program projects should be strengthened.

Recommendations for Executive Action

We are making the following two recommendations to FEMA:

The FEMA Administrator should evaluate the agency's options for providing future emergency sheltering assistance. (Recommendation 1)

The FEMA Administrator should assess the need for an agency-wide consolidated standard operating procedures document for the Hazard Mitigation Grant Program that provides detailed information on the roles and responsibilities, requirements, and key tasks and milestones for monitoring and closing out program projects. (Recommendation 2)

Agency Comments and Our Evaluation

We provided a draft of this product to DHS and the USVI government for review and comment. DHS provided written comments, which are reprinted in appendix IV and summarized below. DHS and the USVI government provided technical comments, which we incorporated as appropriate.

DHS concurred with both our recommendations and described the actions it plans to take in response. With regard to our first recommendation, DHS stated that it will evaluate FEMA's options for providing emergency sheltering assistance through its Individual Assistance Division and provide any recommendations for action, as appropriate, to FEMA's Assistant Administrator for Recovery. DHS anticipates completing this evaluation by February 2020. This action, if fully implemented, should address the intent of the recommendation.

With regard to our second recommendation, DHS stated that FEMA will assess the need for an agency-wide consolidated standard operating procedures document for the Hazard Mitigation Grant Program and, if deemed necessary, FEMA will develop this document. DHS anticipates this effort will be completed by August 2020. This action, if fully implemented, should address the intent of the recommendation. In the meantime, DHS noted that FEMA will consider updating its website to include a single portal providing access to all existing guidance documents relevant to monitoring and overseeing Hazard Mitigation Grant Program projects. We will monitor DHS's and FEMA's efforts to address these two recommendations.

We are sending copies of this report to the appropriate congressional committees, the Secretary of Homeland Security, the FEMA Administrator, the USVI government, and other interested parties. In addition, the report is available at no charge on the GAO website at <http://www.gao.gov>.

If you and your staff have any questions, please contact me at (202) 512-8777 or curriec@gao.gov. GAO staff who made key contributions to this report are listed in appendix V.



Chris P. Currie
Director, Homeland Security and Justice

List of Requesters

The Honorable Michael B. Enzi
Chairman
Committee on the Budget
United States Senate

The Honorable Ron Johnson
Chairman
The Honorable Gary C. Peters
Ranking Member
Committee on Homeland Security and Governmental Affairs
United States Senate

The Honorable Marco Rubio
Chairman
Committee on Small Business and Entrepreneurship
United States Senate

The Honorable Rand Paul, M.D.
Chairman
Subcommittee on Federal Spending Oversight and Emergency
Management
Committee on Homeland Security and Governmental Affairs
United States Senate

The Honorable Maxine Waters
Chairwoman
Committee on Financial Services
House of Representatives

The Honorable Bennie G. Thompson
Chairman
Committee on Homeland Security
House of Representatives

The Honorable Nydia Velázquez
Chairwoman
Committee on Small Business
House of Representatives

The Honorable Peter DeFazio
Chairman
The Honorable Sam Graves
Ranking Member
Committee on Transportation and Infrastructure
House of Representatives

The Honorable Jim Jordan
Ranking Member
Committee on Oversight and Reform
House of Representatives

The Honorable Al Green
Chairman
Subcommittee on Oversight and Investigations
Committee on Financial Services
House of Representatives

The Honorable Emanuel Cleaver, II
House of Representatives

The Honorable Michael McCaul
House of Representatives

The Honorable Gary Palmer
House of Representatives

The Honorable Ann Wagner
House of Representatives

Appendix I: Status of Public Assistance Program Funding in the U.S. Virgin Islands

The Federal Emergency Management Agency (FEMA) obligated more than \$1.8 billion in Public Assistance grant funding for 618 projects across the U.S. Virgin Islands (USVI) as of June 30, 2019.¹ Specifically, FEMA obligated more than \$1.1 billion for emergency work projects (categories A and B), about \$588.5 million for permanent work projects (categories C through G), and about \$141.2 million for management costs (category Z).² As of that date, the USVI expended nearly \$1.1 billion—about 59 percent of total Public Assistance obligations to the USVI—to reimburse subrecipients for completed work. Of this nearly \$1.1 billion, the USVI expended about \$857.5 million (78 percent) for emergency work projects, \$211.3 million (19 percent) for permanent work projects, and \$29.9 million (3 percent) for management costs.

The majority of FEMA's obligations and the funding the USVI expended as of June 30, 2019, are for emergency work because these projects began soon after the disasters struck and focused on debris removal and providing assistance to address immediate threats to life and property. In contrast, permanent work projects take time to identify, develop, and ultimately complete as they represent the longer-term repair and restoration of public infrastructure. While the data below represent the status of Public Assistance funding as of June 30, 2019, the amount of

¹The Public Assistance program provides funding for debris removal efforts; life-saving emergency protective measures, such as emergency repairs to private homes; and the repair or replacement of disaster-damaged publicly-owned facilities, roads and bridges, electrical utilities, and more. An obligation is a definite commitment that creates a legal liability of the government for the payment of goods and services ordered or received. For the purposes of this report, obligations represent the amount of grant funding FEMA provided through the Public Assistance program for specific projects in the USVI. An expenditure is an amount paid by federal agencies, by cash or cash equivalent, during the fiscal year to liquidate government obligations. For the purposes of this report, an expenditure represents the actual spending by the USVI government of money obligated by the federal government. These data include Public Assistance grant funding only and do not include obligations and expenditures for, among other federal disaster assistance programs, direct federal mission assignments, in which a federal agency is tasked with providing eligible emergency work or debris removal services to a territory or state, or for other categories of mission assignments. In April 2019, we reported that FEMA had obligated an additional \$63 million in the USVI for direct federal assistance through mission assignments for temporary emergency power and grid restoration efforts as of July 2018. GAO, *2017 Hurricane Season: Federal Support for Electricity Grid Restoration in the U.S. Virgin Islands and Puerto Rico*, [GAO-19-296](#) (Washington, D.C.: April 18, 2019).

²Management costs are any indirect cost, any direct administrative cost, and any other administrative expense associated with a specific project.

grant funding FEMA obligates and the USVI expends will likely increase over time as additional projects are finalized and approved.

Emergency work. Of the more than \$1.8 billion FEMA obligated as of June 30, 2019, more than 1.1 billion (61 percent) was obligated for 410 emergency work projects in Public Assistance program categories A and B.

- *Category A: Debris removal.* FEMA obligated about \$139.9 million for 88 projects focused on debris removal activities across the territory.³ For example, FEMA obligated \$81.8 million to the USVI Water and Power Authority for territory-wide debris removal efforts (see fig. 9). Of the \$139.9 million FEMA obligated for debris removal, the USVI expended about \$76.9 million (55 percent) as of June 30, 2019.

³Debris removal is the first step in the disaster recovery process, allowing communities to restore accessibility to public services and areas, while ensuring public health and safety in the aftermath of a disaster. Following a major disaster, FEMA provides funding assistance for the removal of debris and wreckage from publicly and privately-owned lands and waters when such removal is in the public interest. See 42 U.S.C. § 5173.

Figure 9: An Organic Debris Storage Area in St. Thomas, U.S. Virgin Islands



Source: GAO. | GAO-20-54

- *Category B: Emergency protective measures.* FEMA obligated about \$985.6 million for 322 projects focused on emergency measures. For example, FEMA obligated about \$278.2 million for the Sheltering and Temporary Essential Power (STEP) pilot program as of June 30, 2019, to fund certain types of temporary repairs to private homes. In addition, FEMA obligated approximately \$111.9 million for the purchase and installation of modular units to be used as temporary classrooms and other facilities while permanent school buildings are repaired or replaced (see fig. 10). Of the \$985.6 million FEMA obligated for emergency protective measures, the USVI expended about \$780.7 million (79 percent) as of June 30, 2019.

Figure 10: Temporary School Facilities in St. Croix, U.S. Virgin Islands as of October 2018



Modular units being constructed to serve as temporary classroom facilities. Inside a modular unit serving as a classroom.

Source: GAO. | GAO-20-54

Permanent work. Of the more than \$1.8 billion in Public Assistance grant funding FEMA obligated as of June 30, 2019, about \$588.5 million (32 percent) was obligated for 200 permanent work projects across categories C through G. These permanent work projects included more than \$383.1 million for cost-effective hazard mitigation measures to reduce the future risk of disaster damage to infrastructure.⁴

- *Category C: Roads and bridges.* FEMA obligated about \$5.9 million for 40 projects focused on repairing roads and bridges in the territory, 9 of which included hazard mitigation measures totaling about \$1.6 million. For example, FEMA obligated about \$233,000 for one project to repair a road on St. Croix damaged by floodwaters. This project included approximately \$61,000 for hazard mitigation measures to reduce the likelihood of erosion during future flooding events. Of the \$5.9 million FEMA obligated for category C, the USVI expended about \$86,000 (1.5 percent) as of June 30, 2019.

⁴This section includes FEMA data on hazard mitigation measures funded through the Public Assistance program under Section 406 of the Stafford Act. These data do not include hazard mitigation funding provided through the Hazard Mitigation Grant Program under Section 404 of the Stafford Act. See appendix II for more information on Hazard Mitigation Grant Program funding and projects.

- *Category D: Water control facilities.* As of June 30, 2019, FEMA did not have any projects in this category. According to FEMA officials, the USVI does not have water control infrastructure—such as berms or levees—that would fall under category D.
- *Category E: Buildings and equipment.* FEMA obligated about \$68.3 million for 101 projects focused on repairing damaged structures in the territory, 49 of which included hazard mitigation measures totaling about \$3.1 million. For example, FEMA obligated about \$59.7 million for one project to replace 5 heavily damaged buildings in a public housing facility in St. Thomas (see fig. 11). While FEMA obligated this project through the standard Public Assistance program, FEMA and the USVI plan to work to develop a fixed-cost estimate with the intention of transitioning this project to the alternative procedures program, according to FEMA documentation. Further, this documentation states that hazard mitigation measures will be incorporated into the new structures by implementing internationally adopted building codes and standards for wall and window replacements. Of the \$68.3 million FEMA obligated for Category E, the USVI expended about \$533,000 (0.8 percent) as of June 30, 2019.

Figure 11: Examples of Hurricane Damage to a Public Housing Facility in St. Thomas, U.S. Virgin Islands



Hurricane force winds and flying debris smashed exterior windows and damaged apartments in a public housing facility in St. Thomas.

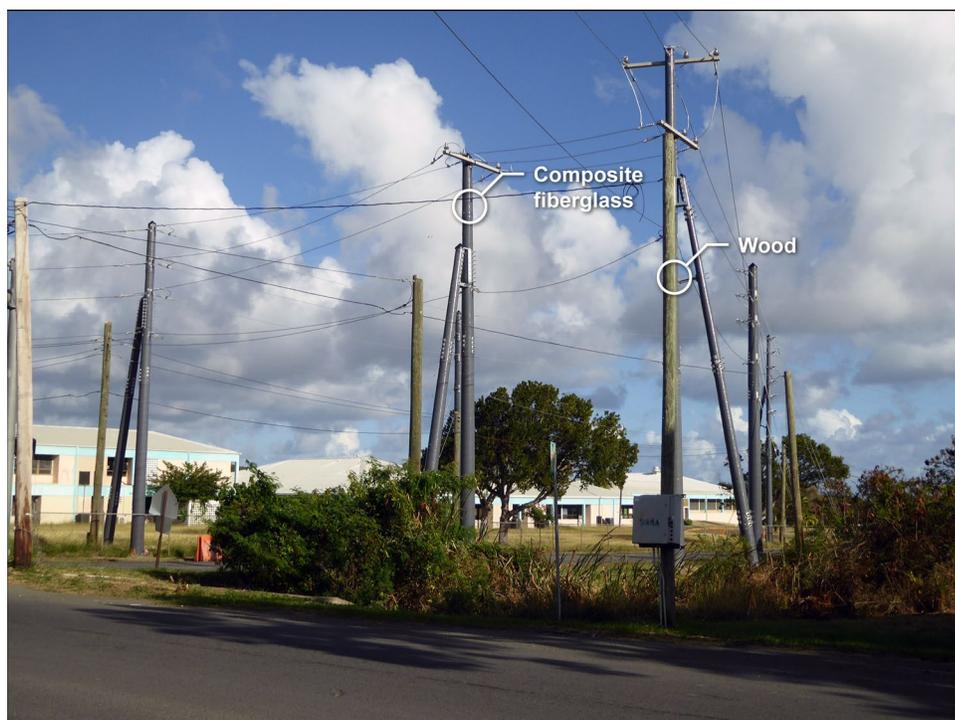
Source: GAO. | GAO-20-54

- *Category F: Utilities.* Of the \$588.5 million FEMA obligated for permanent work projects, \$505.6 million (86 percent) was obligated for 23 projects focused on repairing utilities, 13 of which included hazard mitigation measures totaling about \$378.2 million.⁵ Specifically, FEMA obligated \$481.8 million—or 95 percent of the \$505.6 million—through the standard Public Assistance program for

⁵As of June 30, 2019, nearly 99 percent of all funding for hazard mitigation measures in the USVI was for projects in Public Assistance program category F.

projects focused on territory-wide permanent electrical distribution system repairs. This includes replacing damaged wooden utility poles with more resilient composite fiberglass poles that can withstand 200 mile per hour winds as well as power transmission lines and transformers (see fig. 12).⁶ Of the \$505.6 million FEMA obligated for category F, the USVI expended about \$210.4 million (42 percent) as of June 30, 2019.

Figure 12: Wooden and New Composite Fiberglass Utility Poles in St. Croix, U.S. Virgin Islands



Damaged wooden utility poles for electricity distribution are being replaced by composite fiberglass poles that can withstand 200 mile per hour winds.

Source: GAO. | GAO-20-54

- *Category G: Parks, recreational, and other facilities.* As of June 30, 2019, FEMA obligated about \$8.8 million for 36 projects focused on

⁶In April 2019, we reported that the 2017 hurricanes caused widespread devastation to both Puerto Rico's and the USVI's electricity grid and that federal agencies—including FEMA—provided both traditional support to restore electricity in the territories as well as unprecedented support in Puerto Rico in coordinating and assisting with the territory's grid restoration. See [GAO-19-296](#).

repairing parks, playgrounds, and other facilities, 5 of which included hazard mitigation measures totaling about \$214,000. For example, FEMA obligated about \$1.5 million in March 2019 for two projects to repair the USVI's Tsunami Early Warning System, which comprises a network of warning stations that alert residents of a potential tsunami event (see fig. 13). As of September 2019, these were the only projects FEMA had obligated under the Public Assistance alternative procedures program in the territory, according to FEMA officials.⁷ These projects included about \$185,000 for hazard mitigation measures to replace wooden poles with higher-rated steel poles that are able to withstand high winds and impacts from flying debris during a storm. Of the \$8.8 million FEMA obligated for category G, the USVI expended about \$246,000 (3 percent) as of June 30, 2019.

Figure 13: Tsunami Early Warning System Stations, St. Croix, U.S. Virgin Islands



Two tsunami warning system stations in St. Croix, U.S. Virgin Islands. Each station comprises a pole, a siren head to broadcast warnings, a solar panel, stabilizing guy wires, and other ancillary equipment.

Source: GAO. | GAO-20-54

⁷In October 2018, FEMA commissioned an independent contractor to analyze whether a USVI-specific “cost factor” should be incorporated into FEMA’s process for developing fixed-cost estimates for alternative procedures projects to ensure the actual costs of implementing projects in the territory were captured. As this analysis was ongoing in March 2019 when the Tsunami Early Warning System projects were approved, FEMA used its standard cost estimating process to develop the fixed-cost estimates for these projects.

Appendix II: Status of Hazard Mitigation Grant Program Funding in the U.S. Virgin Islands

As of June 30, 2019, the Federal Emergency Management Agency (FEMA) obligated about \$60.6 million for 22 Hazard Mitigation Grant Program projects in the U.S. Virgin Islands (USVI) and the USVI expended about \$1.7 million (3 percent) across 5 projects.¹ Unlike Public Assistance program projects that, in many cases, are focused on rapidly providing emergency services or repairing critical disaster-damaged infrastructure and systems, Hazard Mitigation Grant Program projects are designed to fund a variety of measures to increase the longer-term resilience of the USVI's infrastructure during future disasters. Information on selected Hazard Mitigation Grant Program projects in the USVI that received obligations as of June 30, 2019, is detailed below.

- **Virgin Islands Territorial Emergency Management Agency and Bureau of Information Technology Emergency Operations Center and Safe Room Retrofit.** FEMA obligated about \$22.5 million to fund the retrofit of the USVI Territorial Emergency Management Agency's Emergency Operations Center.² The new facility will serve as the headquarters for both the USVI Territorial Emergency Management Agency and the USVI Bureau of Information Technology and house a 911 Emergency Call Center. According to FEMA documentation, the facility will include a safe room to allow emergency personnel to shelter in place during disasters and will contain sufficient space to house FEMA and other federal personnel, as necessary. Further, the facility will include a hardened communications system to ensure emergency responders are able to effectively communicate during emergency events, among other improvements.
- **The Comprehensive Territorial Hazard Mitigation and Resilience Plan Project.** FEMA obligated nearly \$5.0 million to fund the development of an in-depth, comprehensive hazard mitigation and resilience plan for territory-wide use. FEMA officials stated that unlike in the contiguous United States, the USVI does not have any entities

¹FEMA's Hazard Mitigation Grant Program provides funding to undertake mitigation measures to reduce the risk of loss of life and property from future disasters. An obligation is a definite commitment that creates a legal liability of the government for the payment of goods and services ordered or received. For the purposes of this report, obligations represent the amount of grant funding FEMA provided through the Hazard Mitigation Grant Program for specific projects in the USVI. An expenditure is an amount paid by federal agencies, by cash or cash equivalent, during the fiscal year to liquidate government obligations. For the purposes of this report, an expenditure represents the actual spending by the USVI government of money obligated by the federal government.

²As of June 30, 2019, this was the largest Hazard Mitigation Grant Program project in the USVI in terms of FEMA obligations.

responsible for formally developing similar plans to guide operations and mitigation activities across various sectors, such as protecting the potable water supply and assessing economically feasible options for development. As a result, FEMA officials told us that this project represents an important effort to develop a holistic, territory-wide hazard mitigation plan that would cover all relevant sectors.

- **The Spring Gut Watershed Green Space Acquisition and Stormwater Management Project.** FEMA obligated nearly \$1.0 million to fund the first phase of a \$2.0 million project to purchase 50 acres of undeveloped land and develop storm water retention measures—such as berms and rock linings—to reduce downstream flooding and the associated damages to roads, homes, and infrastructure (see fig. 14). FEMA officials told us that the first phase of the project included an environmental and historical preservation review of the target locations to confirm program eligibility before actual construction activities can begin.

Figure 14: The Spring Gut Watershed and Gallows Bay Area in St. Croix, U.S. Virgin Islands



The existing greenspace comprising the Spring Gut watershed as of March 2019.



Gallows Bay is located directly downstream from the Spring Gut watershed and experiences regular flooding.

Source: GAO. | GAO-20-54

- **Fortuna/Bordeaux Fire Station Retrofit.** FEMA obligated more than \$470,000 to fund the first phase of a nearly \$5.0 million project to retrofit a fire station in St. Thomas. Specifically, the project will upgrade the facility's structure to applicable codes and standards to mitigate the risks posed by hurricane-force winds, including the

dangers posed by flying debris. Further, the retrofit will include the installation of a steel-reinforced concrete safe room and a back-up emergency power generator to ensure the safety and protection of emergency personnel and the continuity of emergency response activities during a disaster, according to FEMA documentation.

Appendix III: The Governor Juan F. Luis Hospital and Medical Center in St. Croix, U.S. Virgin Islands

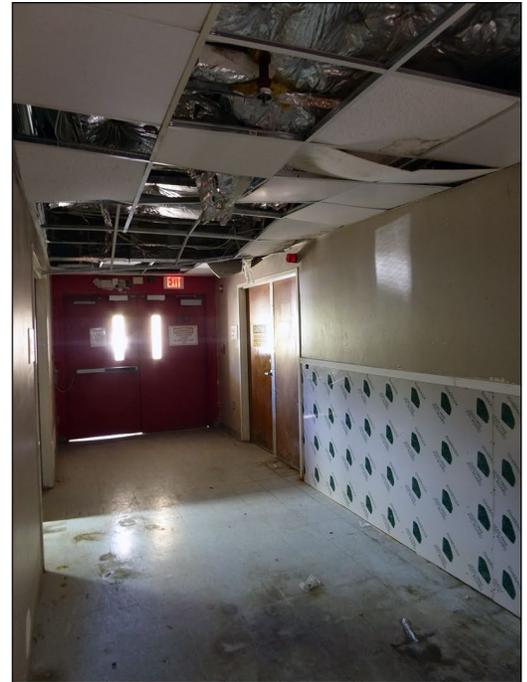
The Governor Juan F. Luis Hospital and Medical Center (JFL hospital) in St. Croix provides an illustrative example of the processes and challenges associated with developing and implementing Public Assistance program projects in the U.S. Virgin Islands (USVI).¹ In September 2017, Hurricane Maria's strong winds and torrential rains caused severe damage to the facility's roof; heating, ventilation, and air conditioning system; and electrical, water, and sewage systems, according to Federal Emergency Management Agency (FEMA) documentation. Further, the infusion of water—both during and after the storm—saturated the interior of the hospital, destroyed medical equipment and hospital furnishings, and facilitated the growth of hazardous mold. Figure 15 details selected hurricane damage to the facility.

¹The Public Assistance program provides funding for debris removal efforts, life-saving emergency protective measures, and the repair or replacement of disaster-damaged publicly-owned facilities, roads and bridges, electrical utilities, and more.

Figure 15: Disaster Damage Sustained by the Governor Juan F. Luis Hospital and Medical Center as of March 2019, St. Croix, U.S. Virgin Islands



A section of the facility that was sheared off during the hurricane leaving the building's ventilation units susceptible to outdoor conditions.



Interior damage as a result of water infiltration from the damaged roof.

Source: GAO. | GAO-20-54

Due to the extensive damage, the JFL hospital has been operating at reduced capacity since the hurricane and certain functions have been relocated to undamaged areas, according to FEMA documentation. This documentation states that while the hospital continues to provide limited medical services to St. Croix residents, it is no longer capable of providing critical care services. Since alternate options were either limited or unavailable on the island following the storms, St. Croix residents in need of life sustaining medical treatments such as chemotherapy infusions or who are experiencing life-threatening health events such as cardiac failure or trauma must be transported out of the territory to receive life-saving care, according to FEMA documentation.

Public Assistance Program Emergency Work Projects at the JFL Hospital

Following Hurricane Maria, FEMA obligated grant funding for several Public Assistance emergency work projects to help keep the JFL hospital functioning and capable of providing limited medical services to St. Croix

residents. For example, in August 2018, FEMA obligated \$119,000 in grant funding to reimburse the JFL hospital for the use of an emergency backup generator through Public Assistance program category B, which provides funding for emergency protective measures.² According to JFL personnel, this funding covered the cost of using the backup generator until the facility's primary electrical system could be restored. In another example, FEMA obligated about \$2.4 million in August 2018—also through Public Assistance program category B—to fund the rental of mobile dialysis trailers (see fig. 16). According to JFL personnel, these trailers were acquired to replace all 14 of the facility's dialysis units that were destroyed during the storm.

²Emergency protective measures under category B of the Public Assistance program are measures to lessen the immediate threat to life, public health, or safety. These measures include pre-positioning equipment prior to the disaster, flood fighting, medical care and transport, search and rescue operations, and providing supplies and commodities, among other eligible measures.

Figure 16: Mobile Dialysis Trailers at Governor Juan F. Luis Hospital and Medical Center, St. Croix, U.S. Virgin Islands



Mobile dialysis trailers to replace units destroyed during the 2017 hurricanes.

Source: GAO. | GAO-20-54

In addition to Public Assistance projects focused on maintaining the existing facility, FEMA obligated \$43.2 million in January 2018 to fund the purchase and installation of modular units to serve as a temporary medical facility through category B emergency work. According to FEMA documentation, this temporary facility is intended to provide critical medical services to St. Croix residents—including an emergency room, pediatric care, a labor and delivery ward, and an intensive care unit, among other services—until a permanent facility is completed (see fig. 17). JFL personnel told us that completing this project is a key priority as it will enable them to transition all medical services from the main facility, which continues to deteriorate over time. However, they stated that implementing this project has been challenging.

Figure 17: Future Location of the Governor Juan F. Luis Hospital and Medical Center Temporary Facility as of March 2019, St. Croix, U.S. Virgin Islands



In March 2019, foundations were being constructed in the Governor Juan F. Luis Hospital and Medical Center parking lot to support the installation of modular units. These units will serve as a temporary medical facility until a permanent facility is completed. As of July 2019, the modular units had been erected and contractors were working to complete, among other things, the electrical, plumbing, and heating, ventilation, and air conditioning systems, according to hospital personnel.

Source: GAO. | GAO-20-54

For example, JFL personnel told us that when former JFL administrators were developing the project, they incorporated the cost of procuring and installing the modular units, but omitted the costs associated with acquiring, installing, and certifying new medical equipment for use in the interim facility. These personnel stated that these costs should have been incorporated into the original project paperwork and clarified that the acquisition and certification of new equipment was critical in ensuring the hospital's provision of medical services would not be disrupted. Specifically, they explained that relocating the facility's existing medical equipment was not a feasible option as it would result in an unacceptable lapse in medical services during the time-consuming process of deconstructing, transferring, reinstalling, and recertifying this equipment in

the modular facility.³ JFL personnel stated they worked closely with FEMA officials and contractor personnel to update the project's paperwork and request additional program funding for this new medical equipment. In August 2019, FEMA approved the updated paperwork and obligated additional funding for this project, according to FEMA documentation.

JFL personnel also stated they have limited capacity to effectively manage and oversee the construction of the temporary facility due to competing responsibilities. In addition to managing this project, they stated they were occupied with the continuous maintenance challenges associated with keeping the deteriorating main facility functioning while also working to develop options for a permanent facility through the Public Assistance alternative procedures program, as discussed below.⁴ They told us FEMA officials and contractor personnel had been helpful in providing assistance, but stated they would benefit from a larger hospital management team that could focus specifically on planning and implementing the facility's numerous recovery efforts. As of July 2019, JFL personnel stated their aim is to officially open the temporary facility in the spring of 2020.

Public Assistance
Alternative Procedures
Permanent Work at the
JFL Hospital

In conjunction with the temporary facility's construction, FEMA officials and JFL personnel are working to develop a permanent work project under the Public Assistance alternative procedures program to replace the damaged hospital. Further, in providing a critical service, the JFL hospital is eligible to use the new flexibilities provided by the Bipartisan

³According to JFL personnel, the modular unit facility and its medical equipment must undergo a series of inspections and certification processes prior to providing medical services. For example, the USVI Fire Department will have to inspect the facility for compliance with fire codes and the medical equipment itself must be certified to ensure it is properly installed and can be used appropriately, according to JFL personnel.

⁴The Public Assistance alternative procedures pilot program provides FEMA and the USVI with financial incentives for the timely and cost-effective completion of permanent work projects and additional flexibilities that are not available through the standard Public Assistance program. However, the alternative procedures require awards for permanent work projects to be made on the basis of fixed-cost estimates.

Budget Act of 2018.⁵ This Act allows FEMA—when using the alternative procedures—to fund the repair or full replacement of the hospital to accepted industry standards regardless of any pre-disaster damage or wear and tear the facility may have sustained prior to the 2017 hurricanes. FEMA officials and JFL personnel stated the Act therefore provides a valuable opportunity to restore the facility to a better condition than it was in prior to the storms. However, JFL personnel told us that pursuing this permanent work project included challenges. For example, JFL personnel told us that maintaining the damaged facility while FEMA determined whether the hospital was eligible for repairs to the existing structure or a complete replacement under the Bipartisan Budget Act was challenging. Specifically, they explained that while FEMA worked to finalize this determination, management was in the difficult position of deciding where and how to invest its finite resources to keep the constantly deteriorating facility functioning. For example, these personnel explained that if FEMA determined that the facility is ineligible for replacement under the Act, they would immediately invest money into the existing facility to address critical components that require urgent attention, such as the water and wastewater systems. In contrast, if FEMA determined that the facility is indeed eligible for replacement, management would strategically invest the minimum amount of resources required to keep the facility functioning with the full knowledge that it would eventually be demolished. Figure 18 details selected examples of temporary fixes JFL personnel implemented to keep the facility functioning.

⁵The Bipartisan Budget Act of 2018 authorized FEMA, when using the Public Assistance alternative procedures program, to provide assistance to fund the replacement or restoration of disaster-damaged infrastructure that provide critical services without regard to pre-disaster condition. Bipartisan Budget Act of 2018, Pub. L. No. 115-123, § 20601(1), 132 Stat. 64 (2018). Further, the Additional Supplemental Appropriations for Disaster Relief Act of 2019, which was signed into law on June 6, 2019, provides additional direction to FEMA in the implementation of section 20601. See Pub. L. No. 116-20, tit. VI, § 601, 133 Stat. 871, 882 (2019).

Figure 18: Examples of Temporary Fixes to the Governor Juan F. Luis Hospital and Medical Center as of March 2019, St. Croix, U.S. Virgin Islands



An example of a temporary measure to capture continued water infiltration from the facility's damaged roof.

Source: GAO. | GAO-20-54



Of the facility's three pumps responsible for providing water to the main hospital building, only one remained operable as of March 2019. Hospital personnel told us they have taken steps to temporarily mitigate the potential for failure, including by installing pipes to relieve pressure.

In May 2019, FEMA officially determined that the JFL hospital was eligible under the Bipartisan Budget Act of 2018 for a complete replacement through the Public Assistance alternative procedures program. JFL personnel told us they are working with FEMA officials and medical industry experts to ensure that they take advantage of the flexibilities provided by the Bipartisan Budget Act when developing the project. As of July 2019, these personnel explained they are in the early stages of working with FEMA officials and territorial stakeholders to assess options for the replacement facility and are designing a strategy to ensure the future hospital is able to sufficiently address the healthcare needs of USVI residents.

Appendix IV: Comments from the Department of Homeland Security

U.S. Department of Homeland Security
Washington, DC 20528



**Homeland
Security**

November 1, 2019

Chris P. Currie
Director, Homeland Security and Justice
U.S. Government Accountability Office
441 G Street, NW
Washington, DC 20548

Re: Management Response to Draft Report GAO-20-54, "U.S. VIRGIN ISLAND'S RECOVERY: Additional Actions Could Strengthen FEMA's Key Disaster Recovery Efforts"

Dear Mr. Currie:

Thank you for the opportunity to review and comment on this draft report. The U.S. Department of Homeland Security (DHS) appreciates the U.S. Government Accountability Office's (GAO) work in planning and conducting its review and issuing this draft.

The Federal Emergency Management Agency's (FEMA) collaborative efforts with U.S. Virgin Islands officials during the implementation of federal recovery programs in response to the 2017 hurricanes included obligating more than \$1.9 billion in grant funding through the Public Assistance program and Hazard Mitigation Grant Program (HMGP). This was done using an outcome-driven approach that relies on in-depth data analysis and reports to help inform decisions about providing services to meet the needs of state, local, tribal, and territorial jurisdictions managing the response to, and the recovery from, major disasters.

With respect to FEMA's HMGP, it is important to note that the Hazard Mitigation Field Operations Guide is not the primary guidance for HMGP, but is a single offering within a comprehensive suite of guidance documents that manage the range of activities under the HMGP. This suite of documents provide comprehensive guidance on all oversight, monitoring and closeout activities for HMGP projects. Relevant guidance documents include:

- Hazard Mitigation Assistance (HMA) Guidance (Part VI, Award Administration Information);
- FEMA Manual 205-0-1, "Grants Management;"

- HMGP Subaward Closeout Toolkit, which includes a checklist for HMGP Subawards;
- HMGP Subaward Closeout Frequently Asked Questions; and
- HMGP Management Cost Closeouts Frequently Asked Questions.

The increasing magnitude of disasters and related challenges to addressing them, such as emergency sheltering, highlight an opportunity for FEMA components to further support community response and efforts to build recovery capacity. FEMA remains committed to the effective management of HMGP and to ensuring this federal assistance program meets the needs of communities and individuals in impacted areas.

The draft report contained two recommendations with which the Department concurs. Attached, please find our detailed response to each recommendation. DHS previously submitted technical comments under a separate cover.

Again, thank you for the opportunity to review and comment on this draft report. Please feel free to contact me if you have any questions. We look forward to working with you again.

Sincerely,



JIM H. CRUMPACKER, CIA, CFE
Director
Departmental GAO-OIG Liaison Office

Attachment

**Attachment: Management Response to Recommendations
Contained in GAO-20-54**

GAO recommended that the FEMA Administrator:

Recommendation 1: Evaluate the agency's options for providing future emergency sheltering assistance.

Response: Concur. FEMA's Individual Assistance Division will evaluate the Agency's options for providing emergency sheltering assistance and provide recommendations for action to the Assistant Administrator for Recovery, as appropriate. Estimated Completion Date (ECD): February 28, 2020.

Recommendation 2: Assess the need for an agency-wide consolidated standard operating procedures document for the Hazard Mitigation Grant Program that provides detailed information on the roles and responsibilities, requirements, and key tasks and milestones for monitoring and closing out program projects.

Response: Concur. FEMA's Federal Insurance & Mitigation Administration (FIMA) HMA Division will assess the need for an agency-wide consolidated standard operating procedures (SOP) document for HMGP. If the assessment identifies the need for such an SOP, it will be developed as part of the HMA Guidance update. In the near term, FIMA's HMA Division will investigate the feasibility of updating the HMGP web page to include a single portal for access to the existing guidance on oversight, monitoring, and closeout of HMGP grants. Pending the results of the feasibility investigation, the HMGP web page update will include publicizing and messaging to all relevant stakeholders, including FEMA Regions, Joint Field Offices, State Hazard Mitigation Officers, the National Emergency Management Association, the Association of State Floodplain Managers, and similar interested parties. ECD: August 31, 2020.

Appendix V: GAO Contact and Staff Acknowledgments

GAO Contact

Chris Currie, (202) 512-8777 or curriec@gao.gov.

Staff Acknowledgments

In addition to the contact named above, Joel Aldape (Assistant Director), Bryan Bourgault (Analyst in Charge), Aaron Gluck, Eric Hauswirth, Brian Lipman, Amanda Miller, Heidi Nielson, and Kevin Reeves made key contributions to this report.

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