



February 2019

U.S. VIRGIN ISLANDS RECOVERY

Status of FEMA Public Assistance Funding and Implementation

Accessible Version

GAO Highlights

Highlights of [GAO-19-253](#), 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 to its infrastructure, housing, and economy. FEMA—a component of the Department of Homeland Security—is the lead federal agency responsible for assisting the USVI as it recovers from these natural disasters. Among other responsibilities, FEMA administers the Public Assistance program in partnership with the USVI territorial government, providing the USVI grant funding for response and recovery activities, including debris removal efforts, life-saving emergency protective measures, and the repair, replacement, or restoration of public infrastructure.

GAO was asked to review the federal government's response and recovery efforts related to the 2017 hurricanes. This report describes (1) the status of FEMA's Public Assistance program funding provided to the USVI in response to the 2017 hurricanes as of October 1, 2018, and (2) the USVI's transition to implementing the Public Assistance alternative procedures in the territory. GAO reviewed program documents and data on obligations and expenditures as of October 1, 2018, and interviewed officials from FEMA and the USVI regarding the Public Assistance program specifically and disaster recovery efforts more generally. GAO also conducted site visits to the USVI islands of St. Croix, St. Thomas, and St. John.

GAO is not making any recommendations in this report, but will

View [GAO-19-253](#). For more information, contact Chris Currie at (202) 512-8777 or curriec@gao.gov.

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U.S. VIRGIN ISLANDS RECOVERY

Status of FEMA Public Assistance Funding and Implementation

What GAO Found

The Federal Emergency Management Agency (FEMA) obligated more than \$1.4 billion in grant funding for Public Assistance projects in the U.S. Virgin Islands (USVI) as of October 1, 2018, in response to the 2017 hurricanes. FEMA obligated about \$873.8 million for emergency work—debris removal activities and emergency measures to lessen the immediate threat to life, public health, and safety—and about \$516.3 million for permanent work—including the repair or replacement of public infrastructure such as roads, electrical utilities, and schools. For example, FEMA obligated about \$101 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. FEMA's obligations for permanent work also included funding for hazard mitigation measures to reduce the risk of damage during future storms—for example, by replacing wooden utility poles with composite fiberglass poles (see figure).

Examples of Public Assistance Projects in the U.S. Virgin Islands



Modular units are being constructed to serve as temporary school facilities. This large unit will be the cafeteria.

Source: GAO. | [GAO-19-253](#)



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

FEMA and the USVI are transitioning from using the standard Public Assistance program in the territory to using the Public Assistance alternative procedures program. Unlike in the standard Public Assistance program where FEMA will fund the actual cost of a project, the alternative procedures allow awards to be made on the basis of fixed-cost estimates to provide financial incentives for the timely and cost-effective completion of permanent work projects. FEMA and USVI officials stated that the alternative procedures will give the USVI more flexibility in determining when and how to fund projects and provide an opportunity to repair and rebuild the USVI's critical services infrastructure—such as its education system and electrical grid—so it meets industry standards without regard to pre-disaster condition. As of November 2018, FEMA and USVI officials were discussing the process for developing projects under the Public Assistance alternative procedures. GAO will continue to monitor the USVI's plans for using the alternative procedures as part of its broader review assessing the USVI's disaster recovery efforts and will issue a follow-on report later this year.

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February 25, 2019

Congressional Requesters

In the span of 14 days in September 2017, two Category 5 hurricanes—Irma and Maria—struck the territory of the U.S. Virgin Islands (USVI), causing billions of dollars in damage to its infrastructure, housing, and economy.¹ These disasters exacerbated an already difficult financial situation in the USVI, which was operating under severe fiscal constraints prior to the storms.²

The Federal Emergency Management Agency (FEMA)—a component of the Department of Homeland Security (DHS)—is the lead federal agency responsible for disaster preparedness, response, and recovery, which includes assisting the USVI as it recovers from these natural disasters.³ Among other responsibilities, FEMA administers the Public Assistance program in the USVI through a partnership with the territorial government and provides grant funding for a wide range of eligible response and recovery activities. These activities include debris removal efforts, life-saving emergency protective measures, and the repair, replacement, or restoration of disaster-damaged publicly-owned facilities, electrical utilities, roads and bridges, and more. Further, in July 2018, FEMA approved the USVI government’s request to use the Public Assistance alternative procedures program in the territory that offers financial incentives for the timely and cost-effective completion of permanent work.

You asked us to review the federal government’s response and recovery efforts related to the 2017 hurricanes. As part of that effort, we have several reviews ongoing of FEMA’s and the USVI government’s disaster

¹The National Oceanic and Atmospheric Administration (NOAA) 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. NOAA defines a Category 5 hurricane as one with 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.

²The USVI’s public debt nearly doubled between fiscal years 2005 and 2015, reaching \$2.6 billion and a debt to Gross Domestic Product ratio of 72 percent. GAO, *U.S. Territories: Public Debt Outlook*, [GAO-18-160](#) (Washington, D.C.: Oct. 2, 2017).

³See 6 U.S.C. § 313.

recovery planning, oversight, and execution efforts in the USVI. In this report, we discuss:

1. the status of FEMA Public Assistance program funding provided to the USVI in response to the 2017 hurricanes as of October 1, 2018—more than 1 year after hurricanes Irma and Maria impacted the territory; and
2. the USVI's transition to implementing FEMA's Public Assistance alternative procedures program in the territory.

Another review will examine disaster recovery efforts in the USVI and we plan to issue that report later this year. In addition, we are conducting a broader body of work covering various disaster response and recovery issues, including disaster recovery in impacted states in the contiguous United States and Puerto Rico, and will be reporting on these issues over the next year.

For this report, we reviewed relevant documentation on FEMA's Public Assistance program—including the April 2018 *Public Assistance Program and Policy Guide* and the September 2018 *Public Assistance Alternative Procedures Permanent Work Guide* for the USVI.⁴ We also obtained and analyzed data from FEMA's Emergency Management Mission Integrated Environment and Integrated Financial Management Information System on Public Assistance program obligations and the USVI's expenditures as of October 1, 2018.⁵ 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. We interviewed FEMA officials, including those stationed in the USVI, as well as officials from the USVI's Governor's office, the USVI's Territorial

⁴*Public Assistance Alternative Procedures (Section 428) Permanent Work Guide FEMA-4340-DR-VI* (September 15, 2018).

⁵These 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.

Emergency Management Agency, the USVI's Department of Finance, and contractor personnel regarding the implementation of the Public Assistance program in the territory. Further, in May and October of 2018, we conducted site visits to the USVI islands of St. Croix, St. Thomas, and St. John to observe hurricane-damaged areas and eligible Public Assistance projects, as well as disaster assistance funding from other federal departments.

We assessed the reliability of the Emergency Management Mission Integrated Environment and the Integrated Financial Management Information System data by reviewing existing information about these systems, interviewing data users and managers responsible for these data, and cross-checking data across sources to ensure consistency. Based on these steps we determined these data to be sufficiently reliable for the purposes of this report.

We conducted this performance audit from October 2018 through February 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 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

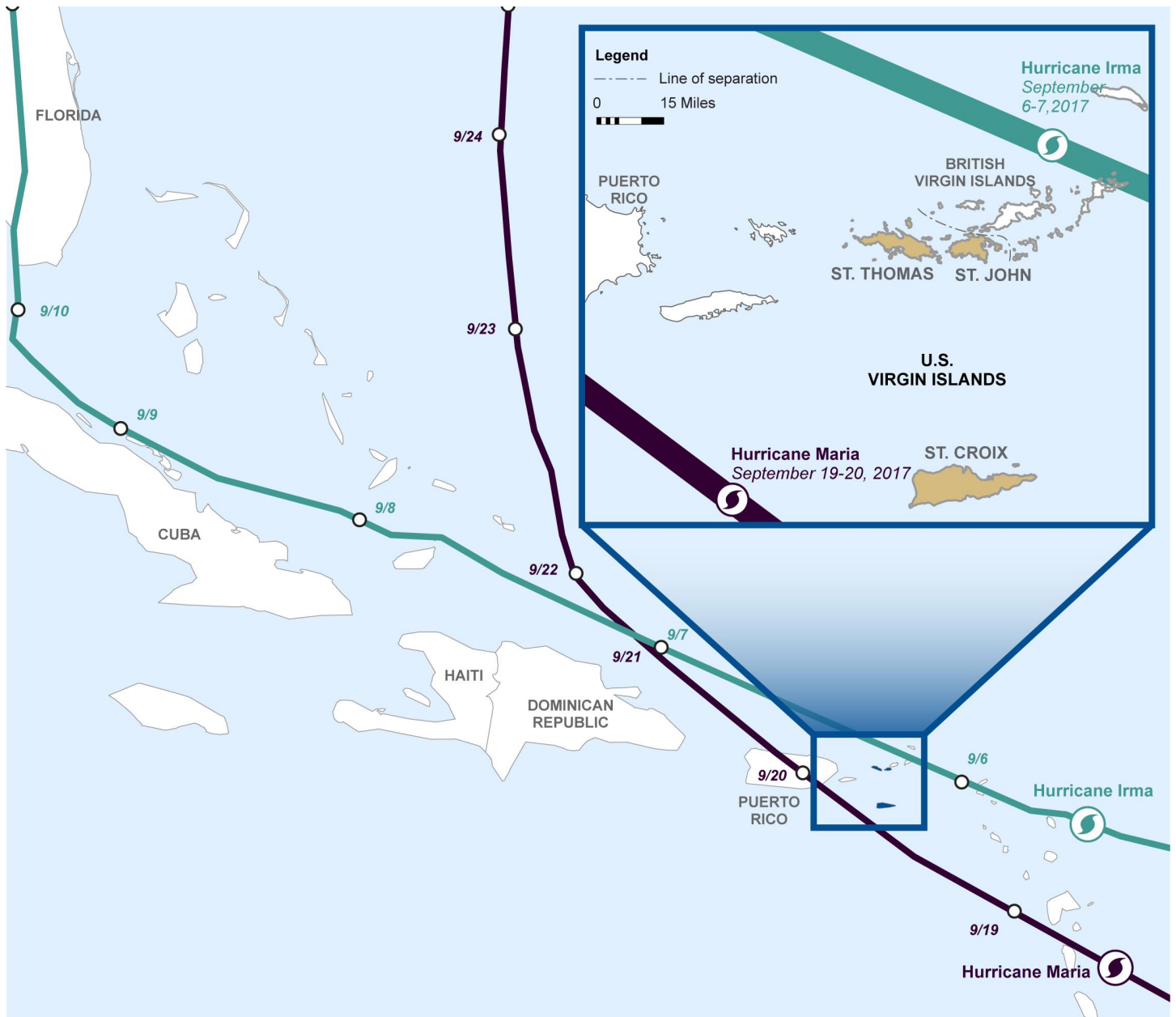
Hurricanes Irma and Maria

In September 2017, two Category 5 hurricanes struck the USVI, causing catastrophic damage across the entire territory and neighboring Caribbean islands.⁶ On September 6, 2017, Hurricane Irma struck St. Thomas and St. John and on September 19, 2017, Hurricane Maria struck St. Croix (see fig. 1).⁷

⁶The 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. 1).

⁷We will report on the status of FEMA Public Assistance funding and recovery planning efforts in Puerto Rico as a result of hurricanes Irma and Maria in a separate report later this year.

Figure 1: 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-19-253

The storms severely damaged the territory's critical infrastructure, devastating more than 90 percent of aboveground power lines and shutting down electricity and telecommunications for months.⁸ Further, 52 percent of the territory's housing units were damaged, ports and airports were closed for weeks, and hundreds of thousands of tons of debris were generated, often blocking roads and making transportation hazardous. In addition, according to a September 2018 report from the USVI Hurricane Recovery and Resilience Task Force, the territory's economic activity—especially tourism—was severely reduced in the months following the storms, leading to job losses and a total estimated economic impact of \$1.54 billion.⁹

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.¹⁰ Major disaster declarations can trigger a variety of federal response and recovery programs for government and nongovernmental entities and households and individuals, including assistance through the

⁸We will report our observations on federal support for electricity grid restoration in Puerto Rico and the USVI as a result of the 2017 hurricanes in a separate report later this year.

⁹In 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 details recovery initiatives across 14 sectors, including the economy, energy, communications, transportation, and more. The report can be found at <https://www.usvihurricanetaskforce.org/>.

¹⁰In 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.

Public Assistance program.¹¹ 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.¹²

FEMA's Public Assistance Program

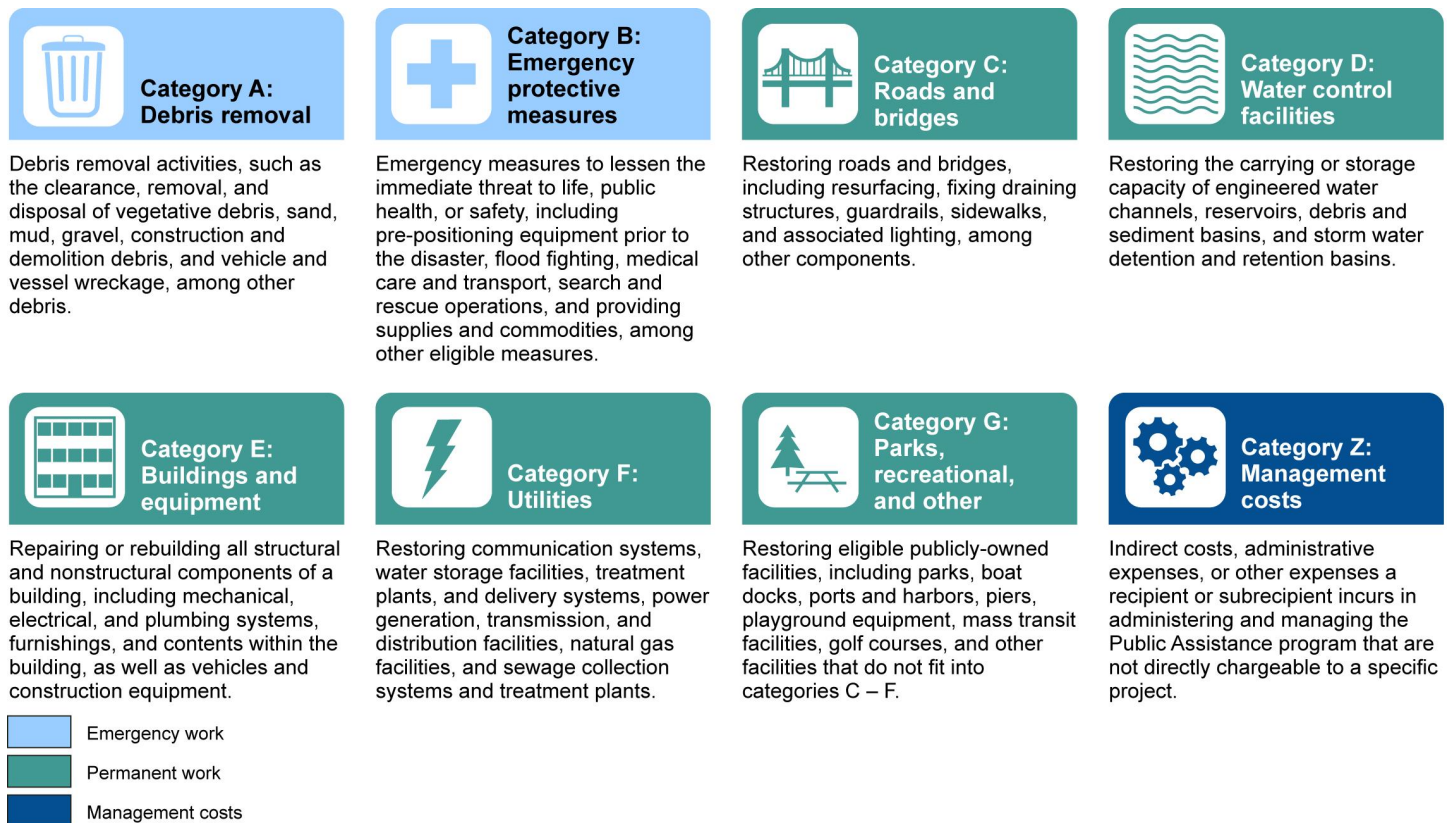
FEMA's Public Assistance program provides funding to state, territorial, local, and tribal governments as well as certain types of private nonprofit organizations to assist with responding to and recovering from major disasters or emergencies.¹³ As shown in figure 2, Public Assistance program funds are categorized broadly as "emergency work" or "permanent work." Within these broad categories are separate subcategories. In addition to the emergency work and permanent work categories, the program includes category Z, which represents indirect costs, administrative expenses, and other expenses a recipient or subrecipient incurs in administering and managing the Public Assistance program that are not directly chargeable to a specific project.

¹¹*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.

¹²6 U.S.C. § 313(c)(4).

¹³The 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 2: Federal Emergency Management Agency’s Public Assistance Program Categories of Work



Source: Federal Emergency Management Agency. | GAO-19-253

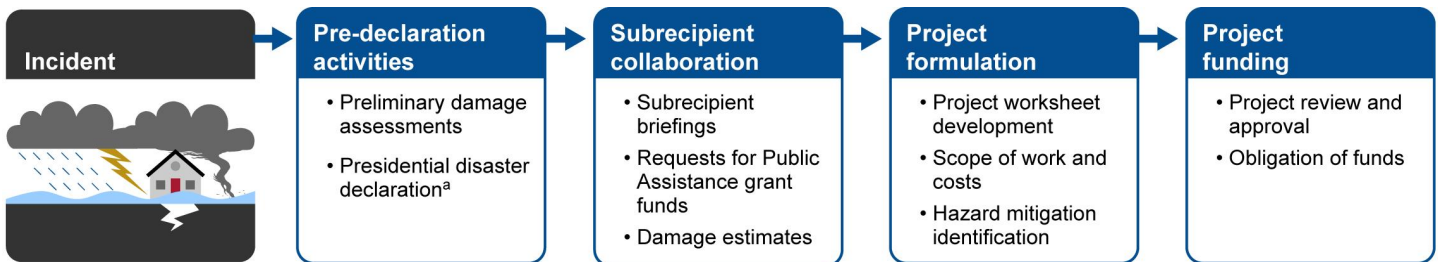
FEMA’s Public Assistance program also provides funding for cost-effective hazard mitigation measures to reduce or eliminate the long-term risk to people and property from future natural and man-made disasters and their effects.¹⁴ Specifically, FEMA provides funding for hazard mitigation measures in conjunction with the repair of disaster-damaged

¹⁴FEMA 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 Public Assistance policy allows three different methods to test for cost-effective hazard mitigation. First, under the 15 percent rule, hazard mitigation measures may amount to up to 15 percent of the total eligible cost of repair work on a project. Second, certain hazard mitigation measures that have been predetermined to be cost-effective may qualify under the 100 percent rule, which permits the hazard mitigation as long as it does not exceed 100 percent of the eligible cost of the repair work on a project. Third, for measures that exceed eligible costs, the territory must demonstrate that the measure is cost-effective through an acceptable cost/benefit analysis methodology.

facilities to enhance their resilience during future disasters. For example, a community that had a fire station damaged by a disaster could use Public Assistance funding to repair the facility and incorporate additional measures such as installing hurricane shutters over the windows to mitigate the potential for future damage.

Once the President has declared a disaster, FEMA, the state or territorial government (the recipient), and local or territorial entities (the subrecipient) work together to develop damage assessments and formulate project worksheets for eligible projects. Project worksheets detail the scope of work and estimated cost for repairing or replacing disaster-damaged infrastructure as well as any hazard mitigation measures that may help to increase the resilience of this infrastructure during future disasters. 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 withdraw—funding to pay the subrecipient for eligible work upon completion (see fig. 3).

Figure 3: Federal Emergency Management Agency’s (FEMA) Public Assistance Program Application Process



Source: GAO review of FEMA documents; Art Explosion (clip art). | GAO-19-253

^aIn 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.

In addition, a state or territorial governor may designate a governor's authorized representative (GAR) to oversee all aspects of disaster assistance, including Public Assistance funding.¹⁵ Specifically, the GAR is responsible for ensuring compliance with program requirements by providing oversight into how goods and services are procured for projects, such as construction materials or modular school units. The GAR also confirms that subrecipients submit complete documentation demonstrating that all work completed is in accordance with a project's approved scope of work and Public Assistance program requirements. The GAR then approves the paperwork and the recipient can draw down funding from the account holding the obligations to reimburse subrecipients for completed work. When a project has been completed, FEMA conducts a close-out process to certify that all work has been completed and reconciles the actual cost incurred. If the actual cost of the completed work is greater than the amount of money FEMA obligated for the project, FEMA will reimburse the subrecipient for these additional costs.

FEMA's Public Assistance Alternative Procedures Program

The Sandy Recovery Improvement Act of 2013 authorized the use of alternative procedures in administering the Public Assistance program, thereby providing new flexibilities to FEMA, states, territories, and local governments for debris removal, infrastructure repair, and rebuilding projects using funds from this program.¹⁶ Unlike in the standard Public Assistance program where FEMA will fund the actual cost of a project, the

¹⁵44 C.F.R. §§ 206.2(a)(13) and 206.41(d). The GAR is the designated individual responsible for administering federal disaster assistance programs on behalf of the state, local, tribal, or territorial government and ensuring compliance with all applicable laws, regulations, and FEMA guidance.

¹⁶The 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(2), 127 Stat. 39, amending Pub. L. No. 93-288, tit. IV, § 428 (codified at 42 U.S.C. § 5189f). The stated goals of the alternative procedures are to reduce the costs to the federal government, increase flexibility in the administration of the Public Assistance program, expedite the provision of assistance under the program, and provide financial incentives for recipients of the program for the timely and cost-effective completion of projects.

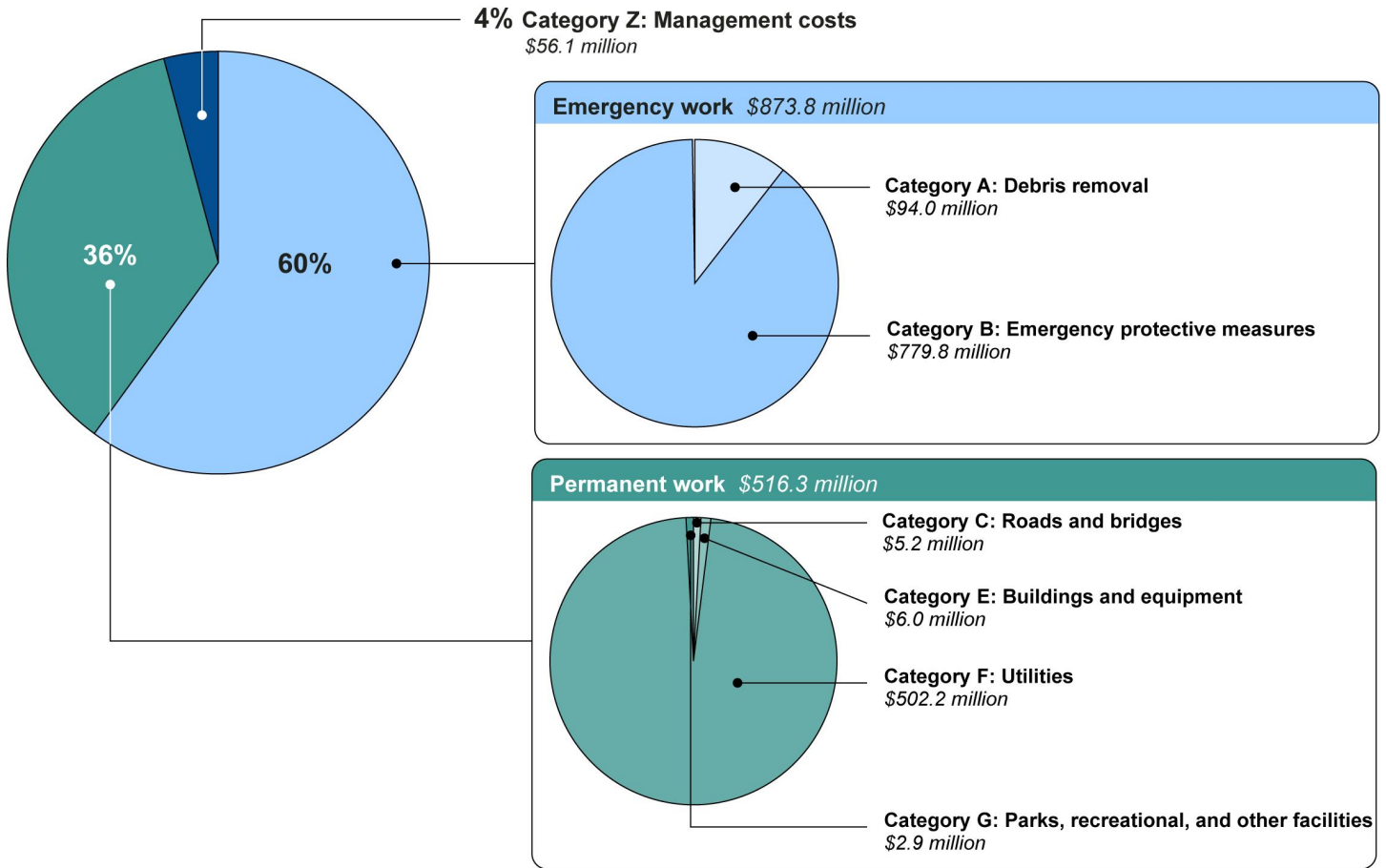
Public Assistance alternative procedures allow awards for permanent work projects to be made on the basis of fixed-cost estimates to provide financial incentives for the timely and cost-effective completion of work. Under these procedures, if the actual cost of the project exceeds the fixed-cost estimate agreed upon by FEMA and the recipient, the recipient or subrecipient is responsible for the additional costs at the time of the close-out process. However, if the actual cost of completing eligible work for a project is below the estimate, the recipient may use the remaining funds for additional cost-effective hazard mitigation measures to increase the resilience of public infrastructure. In addition, these funds may also be used for activities that improve the recipient's or subrecipient's future Public Assistance operations or planning.

FEMA Had Obligated More Than \$1.4 Billion and the USVI Had Expended About \$587 Million in Public Assistance Funding as of October 1, 2018

As of October 1, 2018, FEMA had obligated more than \$1.4 billion through the standard Public Assistance program for 475 projects across the USVI.¹⁷ As shown in figure 4, FEMA obligated funding for both emergency work and permanent work projects.

¹⁷FEMA data presented in this report on obligations and expenditures in the USVI represent funding provided through FEMA's standard Public Assistance program. These 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. The GAR monitors and publicly reports on the status of Public Assistance program funding in the territory, among other disaster assistance programs, through the USVI Public Finance Authority website at <http://www.usvipfa.com/hurricanehome.html>.

Figure 4: Federal Emergency Management Agency's (FEMA) \$1.4 Billion in Public Assistance Funding Obligated to the U.S. Virgin Islands by Category, October 1, 2018^a



Source: Federal Emergency Management Agency's Emergency Management Mission Integrated Environment. | GAO-19-253

Note: As of October 1, 2018, FEMA did not have any category D Public Assistance projects in the U.S. Virgin Islands. 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 indirect costs, administrative expenses, and other expenses a recipient or subrecipient incurs in administering and managing the program that are not directly chargeable to a specific project.

^aThese 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.

As of October 1, 2018, of the more than \$1.4 billion FEMA obligated, the USVI had expended approximately \$586.9 million—about 41 percent of total Public Assistance program obligations to the USVI—to reimburse

subrecipients for completed work.¹⁸ Of this \$586.9 million, the USVI had expended about \$532.8 million (91 percent) for emergency work projects in categories A and B and \$49.1 million (8 percent) for permanent work projects in categories C through G.¹⁹ The majority of FEMA's obligations and the funding the USVI expended as of October 1, 2018, 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.²⁰

Emergency work. Of the more than \$1.4 billion FEMA had obligated as of October 1, 2018, about \$873.8 million (60 percent) was obligated for 322 emergency work projects in Public Assistance categories A and B.

- *Category A: Debris Removal.* FEMA obligated about \$94.0 million for 71 projects focused on debris removal activities across the territory.²¹

¹⁸The Governor of the USVI designated two territorial entities to implement and oversee the Public Assistance program in the USVI—the USVI Territorial Emergency Management Agency as the programmatic manager and the Commissioner of the USVI's Department of Finance as the GAR. The USVI also hired two contractors to help identify and develop projects and provide oversight over Public Assistance funding draw downs. As the USVI does not have local (e.g., city or county) governance structures, decisions regarding the Public Assistance program and its implementation are made at the territorial government level and do not require input or approval from additional governmental entities. Further, during territorial emergencies like the 2017 hurricanes, the Governor of the USVI has the authority to make decisions regarding how disaster recovery activities will be implemented in the territory, according to USVI officials.

¹⁹The USVI also expended about \$5.1 million for management costs under category Z. As noted above, this category represents indirect costs, administrative expenses, and other expenses a recipient or subrecipient incurs in administering and managing the program that are not directly chargeable to a specific project.

²⁰The federal cost share—or the percentage of the total cost FEMA is responsible for obligating for a given project—may differ between emergency work and permanent work projects. In the USVI, the federal cost share for emergency work projects (categories A and B) was 100 percent until September 2018 and 90 percent thereafter, while the federal cost share for permanent work projects (categories C through G) is 90 percent. The USVI is responsible for funding the percentage of emergency work and permanent work projects FEMA does not cover.

²¹Debris 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.

For example, FEMA obligated \$45.0 million to the USVI Department of Public Works for territorywide debris removal efforts and \$39.1 million to the USVI Water and Power Authority for these activities in St. Croix (see fig. 5). Of the \$94.0 million FEMA obligated for debris removal, the USVI had expended about \$54.6 million (58 percent) as of October 1, 2018.

Figure 5: Organic Debris Storage Area in St. Croix, U.S. Virgin Islands



A drop-off and storage area in St. Croix, U.S. Virgin Islands for organic debris awaiting transportation to the continental United States for disposal.

Source: GAO. | GAO-19-253

- **Category B: Emergency Protective Measures.** FEMA obligated about \$780 million for 251 projects focused on emergency measures. For example, FEMA obligated about \$187 million for the Sheltering and Temporary Essential Power program, which is intended to provide essential repairs or restore power to private residences to allow affected individuals to return or remain in their homes, thereby reducing the demand for other shelter options. In addition, FEMA obligated approximately \$101 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. 6). Of the \$780 million FEMA obligated for emergency protective measures, the USVI had expended about \$478 million (61 percent) as of October 1, 2018.

Figure 6: Construction of Temporary School Facilities in St. Croix, U.S. Virgin Islands



Two large modular units to provide indoor common areas, including a cafeteria.

Source: GAO. | GAO-19-253

Permanent work. Of the more than \$1.4 billion in Public Assistance funding FEMA had obligated as of October 1, 2018, about \$516.3 million (36 percent) was obligated for 153 permanent work projects across categories C through G. These permanent work projects include about \$349.4 million for cost-effective hazard mitigation measures aimed at reducing the future risk of disaster-damaged facilities in conjunction with their repair.²² Further, of the \$516.3 million FEMA obligated for permanent work in the USVI, approximately \$500.4 million—or 97 percent of all permanent work obligations—was obligated to the USVI Water and Power Authority for the permanent repair of electrical distribution systems and other utilities across the territory.

- **Category C: Roads and Bridges.** FEMA obligated about \$5.2 million for 35 projects focused on repairing roads and bridges in the territory, 18 of which included hazard mitigation measures totaling about \$1.5 million. For example, FEMA obligated about \$410,000 for one project to repair a road on St. Thomas damaged by floodwaters. This project included approximately \$227,000 for hazard mitigation measures, such as replacing the damaged road surface with reinforced concrete

²²FEMA has the authority to provide Public Assistance funding for cost-effective hazard mitigation measures to reduce or eliminate the long-term risk to people and property from natural hazards and their effects. See 42 U.S.C. § 5172; 44 C.F.R. § 206.226.

and building a retaining wall. As of October 1, 2018, the USVI had not expended funding in this category.

- *Category D: Water Control Facilities.* As of October 1, 2018, FEMA did not have any projects in this category. According to FEMA officials, the USVI does not have water control infrastructure that would fall under category D, such as dams, levees, or berms.
- *Category E: Buildings and Equipment.* FEMA obligated \$6.0 million for 77 projects focused on repairing and rebuilding damaged buildings and equipment, 16 of which included hazard mitigation measures totaling about \$1.8 million. For example, FEMA obligated about \$1.5 million to repair damage to the airport terminal building in St. Thomas—a project where hazard mitigation measures comprised 87 percent of the project’s total cost (see fig. 7). These measures include replacing the terminal’s roof with materials designed to withstand higher wind speeds to increase the building’s resilience during future storms. Of the \$6.0 million FEMA obligated for category E, the USVI had expended about \$148,000 (2.5 percent) as of October 1, 2018.

Figure 7: Roof Damage at Cyril E. King International Airport in St. Thomas, U.S. Virgin Islands



Segments of the roof at the Cyril E. King International Airport in St. Thomas, U.S. Virgin Islands with blue plastic sheeting awaiting permanent repairs.

Source: GAO. | GAO-19-253

- *Category F: Utilities.* Of the \$516.3 million FEMA obligated for permanent work projects, \$502.2 million (97 percent) was obligated for 15 projects focused on repairing utilities, 7 of which included

hazard mitigation measures totaling about \$346.0 million.²³ For example, FEMA obligated \$286.1 million and \$50.2 million for permanent electrical distribution system repairs in St. Croix and St. John, respectively. 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. 8). Of the \$502.2 million FEMA obligated for category F, the USVI had expended about \$49.0 million (10 percent) as of October 1, 2018.

Figure 8: Composite Fiberglass Utility Poles in St. John, U.S. Virgin Islands



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

Source: GAO. | GAO-19-253

- *Category G: Parks, Recreational, and Other Facilities.* FEMA obligated about \$2.9 million for 26 projects focused on repairing parks, playgrounds, and other recreational facilities, 1 of which included hazard mitigation measures. Specifically, FEMA obligated about \$453,000 to repair the Lindbergh Park and Water Playground in

²³As of October 1, 2018, 99 percent of all funding for hazard mitigation measures in the USVI was for projects in Public Assistance category F.

St. Thomas—a project that included about \$18,000 for hazard mitigation measures. As of October 1, 2018, the USVI had not expended funding in this category.

Future projects. In addition to the more than \$1.4 billion in Public Assistance funding FEMA had obligated as of October 1, 2018, FEMA expected to review an additional 900 future projects for eligibility representing an estimated \$779.4 million in potential funding.²⁴ Of this estimated total amount, FEMA anticipates \$128.5 million (16 percent) in costs for future emergency work projects and \$650.9 million (84 percent) in costs for future permanent work projects.²⁵

FEMA and the USVI Are Transitioning From the Standard Public Assistance Program to the Public Assistance Alternative Procedures Program

In July 2018, FEMA approved a June 2018 request from the Governor of the USVI to transition to using the Public Assistance alternative procedures program for permanent work in the territory.²⁶ The alternative procedures provide new flexibilities to FEMA and the USVI that are not available through the standard Public Assistance program. In September 2018, FEMA issued the *Public Assistance Alternative Procedures Permanent Work Guide* for the USVI to provide guidance on the implementation of the program in the territory. FEMA and USVI officials stated that a section of the Bipartisan Budget Act of 2018 and the

²⁴According to FEMA officials, these data represent projects that have already been submitted to FEMA for federal review and projects that FEMA expects to receive in the future. Further, the \$779.4 million estimate represents the total cost of completing all projects, not the total federal share FEMA will be responsible for obligating.

²⁵In addition to the \$779.4 million estimate above, FEMA also projects an additional \$7.4 million for management costs under category Z.

²⁶The Sandy Recovery Improvement Act of 2013 authorized the use of alternative procedures in administering the Public Assistance program, thereby providing new flexibilities to FEMA, states, and local governments using funds from this program. See 42 U.S.C. § 5189f. The stated goals of the alternative procedures are to reduce the costs to the federal government, increase flexibility in the administration of the Public Assistance program, expedite the provision of assistance under the program, and provide financial incentives for recipients of the program for the timely and cost-effective completion of projects.

flexibilities provided by the program itself influenced the USVI's decision to transition to using the alternative procedures.

First, Section 20601 of the Bipartisan Budget Act of 2018 authorized FEMA, when using the Public Assistance alternative procedures, to provide assistance to fund the replacement or restoration of disaster-damaged infrastructure that provide critical services to industry standards without regard to pre-disaster condition.²⁷ FEMA and USVI officials told us that the territory therefore has a valuable opportunity to use the alternative procedures to repair and rebuild its critical services infrastructure—including the USVI's education system, electrical grid, and emergency medical care system, among others—so it is in a better condition than it was prior to the 2017 hurricanes.²⁸ Second, USVI officials stated that under the standard Public Assistance program currently being used in the USVI, the territorial government is responsible for providing the initial funding to reimburse subrecipients for completed work prior to drawing down funds from the account holding the FEMA-obligated amounts of money for each project. They explained that because of the financial liquidity challenges facing the territory, this process was problematic and required USVI officials to prioritize projects based on the availability of the territory's funding. USVI officials stated that the Public Assistance alternative procedures will help to address this challenge by providing the territory with more flexibility regarding when and how to fund projects. For example, in certain cases, the USVI is able to consolidate permanent work projects approved under the alternative procedures and share obligated funding across these projects. In addition, the USVI is able to use any excess funds for cost-effective hazard mitigation measures or for activities that improve the recipient's or subrecipient's future Public Assistance operations or planning.

As of November 2018, FEMA and USVI officials stated they were working to identify and develop permanent work projects using the Public

²⁷ Bipartisan 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). 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.

²⁸ Under the standard Public Assistance program, FEMA generally estimates the eligible cost of repairing, restoring, reconstructing, or replacing a public facility or private nonprofit facility on the basis of the design of the facility as it existed immediately before the major disaster. See 42 U.S.C. § 5172(e).

Assistance alternative procedures and discussing the process for developing the fixed-cost estimate for each project. Specifically, unlike in the standard Public Assistance program where FEMA will fund the actual cost of a project, the Public Assistance alternative procedures use a fixed-cost estimate which is agreed to prior to obligation and the USVI will be financially responsible for any actual costs that exceed this amount. Given the USVI's difficult fiscal situation, FEMA and USVI officials stated that ensuring these fixed-cost estimates are as accurate as possible will be critical. However, FEMA officials also noted that if FEMA and the territory cannot come to an agreement on a fixed-cost estimate for any given project, the USVI does have the option to move forward through the standard Public Assistance program. According to FEMA's *Public Assistance Alternative Procedures Permanent Work Guide* for the USVI, all cost estimates for projects using these procedures must be finalized by March 2020.²⁹ We will continue to monitor the USVI's plans for using the alternative procedures as part of our broader work assessing disaster recovery efforts in the USVI and will issue a follow-on report later this year.

Agency Comments

We provided a draft of this report to DHS and the USVI government. We requested comments from DHS and the USVI government, but none were provided. DHS did provide technical comments, which we incorporated as appropriate.

We are sending copies of this report to the appropriate congressional committees, the Secretary of Homeland Security, the Administrator of FEMA, 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>.

²⁹According to FEMA officials, FEMA and the USVI are reviewing projects that have already been obligated funding under FEMA's standard Public Assistance program for inclusion in the alternative procedures program.

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 II.

A handwritten signature in black ink that reads "Chris P. Currie". The signature is written in a cursive style with a large initial "C" and a distinct "P" and "C".

Chris P. Currie
Director, Homeland Security and Justice

List of Requesters

The Honorable Michael Enzi
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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

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The Honorable Michael McCaul
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Appendix I: GAO Contact and Staff Acknowledgments

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Staff Acknowledgments:

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

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