

**DEPARTMENT OF THE ARMY CORPS OF ENGINEERS**

**COMPLETE STATEMENT OF**

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**BEFORE**

**COMMITTEE ON ENERGY AND NATURAL RESOURCES  
UNITED STATES SENATE**

**ON**

**UPDATE ON THE RESTORATION OF PUERTO RICO'S ELECTRIC  
INFRASTRUCTURE**

**MAY 8, 2018**

Madam Chair and distinguished members of the Committee:

I am honored to testify before you today to discuss the authorities and responsibilities of the U.S. Army Corps of Engineers (Corps) during disaster response and recovery operations. I am Ray Alexander, Director of Contingency Operations and Homeland Security, U.S. Army Corps of Engineers (Corps).

The Corps conducts its emergency response and recovery activities under two basic authorities: the Stafford Disaster and Emergency Assistance Act (Stafford Act); and Public Law 84-99 Flood Control and Coastal Emergencies, 33 U.S.C. 701n, as amended (PL 84-99). Under the Stafford Act, we and other Federal agencies support the Federal Emergency Management Agency (FEMA) under the National Response and Recovery Framework. In this capacity, the Corps is the lead Federal agency for Emergency Support Function 3 (Public Works and Engineering), and Recovery Support Function (RSF) – Infrastructure Systems but works under the Federal Coordinating Officer's (FCO) direction. ESF-3 provides temporary emergency power, temporary roofing, debris management, emergency infrastructure assessment, critical public facility restoration, temporary housing, demolition/structural stabilization, and support to FEMA command and control Nodes/ESF3. The Infrastructure Systems RSF works to efficiently facilitate the restoration of infrastructure systems and services to support a viable, sustainable community and improves resilience to and protection from future hazards. Under PL 84-99, we prepare for disasters through planning, coordination, and training with local, state, Federal partners. The Corps can also assist state and local entities in flood fight operations or through implementation of advance measures to prevent/reduce storm incident damages. After the emergency incident, PL 84-99 authorizes the Corps to repair damage to Federal flood infrastructure projects, and work with states/municipalities to rehabilitate and restore eligible non-Federal flood infrastructure to pre-storm conditions.

When disasters occur, Corps teams and other resources are mobilized from across the country to assist the local Corps districts that are responding to the incident. As part of this mission, the Corps has more than 50 specially trained response teams, supported by emergency contracts, to perform the wide range of public works and engineering-related support missions I just described. Additionally, the Corps uses pre-awarded contracts that can be quickly activated for missions such as debris removal, temporary roofing, generator installation, and dredging.

**2017 Hurricane Season** – With regard to hurricane activity, 2017 was an unusually active season. The Corps was, and continues to be, involved in the FEMA-led Federal response and recovery operations in support of multiple events, including Hurricanes Harvey, Irma, and Maria.

**Hurricane Harvey** – On August 25, 2017, Category 4 Hurricane Harvey made landfall along the central Texas coast near Rockport, Texas, between Port Aransas and Port O'Connor and the President approved a Major Disaster Declaration for Texas. Large amounts of rainfall fell across the greater Houston metropolitan area causing record

flooding. FEMA tasked 27 total mission assignments totaling \$126 million to the Corps to assist in Hurricane Harvey response and recovery efforts. Since August 22, 2017, nearly 1,000 Corps personnel have been deployed to support response and recovery efforts.

**Hurricanes Irma and Maria** – Category 5 Hurricane Irma made landfall over the U.S. Virgin Islands on September 6, 2017, while also impacting Puerto Rico with Category 2 winds, 12 foot storm surge and up to 20 inches of rain. Hurricane Irma made landfall in southern Florida/Florida Keys on September 9, 2017. Soon thereafter, Category 5 Hurricane Maria made landfall over Puerto Rico on September 20, 2017, causing major damage to critical infrastructure and homes. FEMA has issued over \$3.6 billion in Mission Assignments for the Corps through ESF-3 to assist in Hurricanes Irma and Maria response and recovery (47 Mission Assignments totaling \$181 million for Hurricane Irma and (42 Mission Assignments totaling \$3.64 billion for Hurricane Maria). Currently, the Corps has over 940 personnel supporting ESF-3 missions deployed in various locations supporting the recovery missions.

Temporary Emergency Power: The Corps and its contractors concluded its temporary emergency power mission assignment in the U.S. Virgin Islands on February 20, 2018; the Corps installed 180 generators during this mission. Fifteen generators remain installed and are managed under a FEMA contract to provide additional stability to critical facilities in the U.S. Virgin Islands.

As of April 30, 2018, the Corps and its contractors have executed 2,178 of 2,187 taskings received for temporary generators in Puerto Rico. Task Force Temporary Emergency Power is currently subsidizing grid power with 826 active generators installed, with total capacity of 290.1 MW. As the power returns to Puerto Rico, the number of active generators will go down. The Corps has completed 514 de-install requests 514, with 11 remaining. Temporary Emergency Power, in coordination with PREPA, installed nine small power plants, or micro grids, to provide temporary power to communities while grid power is being restored. Currently, four micro grids are operational and five have been de-installed as the areas are back on grid power.

Temporary Roofing: In order for the Corps and its contractors to install temporary covering (blue roof), the government and its contractors require validated rights of entry. The Corps has completed its temporary roofing mission assignments in Florida, the U.S. Virgin Islands and Puerto Rico. In Puerto Rico, the Corps and its contractors completed 59,469 blue roof installations and collected over 76,609 rights of entry. The final roof was completed on March 22, 2018 and the mission was complete as of April 3, 2018.

Debris Management: As of April 30, 2018, the Corps has removed approximately 3,918,767 cubic yards of debris in Puerto Rico (approximately 95% complete).

Dam and Levee Safety, Assessments, and Response: In Puerto Rico, Corps Dam and Levee teams inspected 17 priority dam locations and Guajataca Dam was the only site deemed in critical condition. Hurricane Maria caused a significant rise in the water level of the dam, and resulted in flow in the spillway. The spillway structure was compromised and the surrounding area began to erode, posing immediate safety risk to 1,000 residents and severing water supply to approximately 250,000 residents. Corps teams placed over 500 Jersey barriers and over 1,300 “super-sack” sand bags to decrease erosion and allow for temporary repairs of the spillway. Additionally, the Corps teams cleared existing outflow conduits and placed piping and pumps to further reduce the water level in the dam to safe levels and provide water supply. To address residual risk to human health and safety, by direction of FEMA mission assignment, the Corps has contracted for spillway stabilization and water supply line reconnections. The Corps is in the process of contracting for repair of the outlet works gate. Together these interim risk reduction measures will provide a 100-year protection this year. PREPA is considering requesting Corps support under a Project Worksheet (PW) for additional work for spillway and channel reinforcement to provide a 1,000-year protection by the fall of 2019 for the Guajataca Dam. The Corps has no authority for permanent repairs at this non-federal project.

Power Restoration Mission: On September 30, 2017, the U.S. Army Corps of Engineers was given a FEMA Mission Assignment, within the authority of the Stafford Act, to lead planning, coordination, and integration efforts in preparation to execute electrical power grid restoration in Puerto Rico due to impacts caused by Hurricane Maria. Our priority remains the safe and urgent restoration of power to the people of Puerto Rico. As of May 1, 2018, 98.04% (approximately 1,444,186 of the 1.47 million) of pre-storm customers that are able to receive power are energized. The Corps currently has 1,155 personnel on the ground, including 976 contractors, 665 working directly on distribution and transmission lines. The Unified Command Group— comprised of the Corps, the Federal Emergency Management Agency, the Puerto Rico Electric Power Authority, and the Island's Restoration Coordinator continually evaluate the ongoing work in order to restore electricity to remaining pre-storm customers across the island. As the Corps' current Mission Assignment approaches the May 18, 2018 expiration, PREPA is taking on more of the management, coordination, logistics, and external messaging functions for the restoration effort. Throughout the Corps' Grid Restoration Mission Assignment and continuing today, Department of Defense's Defense Logistics Agency has been an essential partner as the acquisition agent for the procurement of over \$240 million of materials required in the restoration the power grid.

The Corps remains fully committed and capable of executing its other Civil Works activities across the Nation despite our heavy involvement in these ongoing response and recovery operations. We also remain ready and poised to assist in future events as they may occur. This concludes my testimony and I look forward to answering any questions you might have. Thank you.