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# United States Senate

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

WASHINGTON, DC 20510-6175

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May 13, 2019

The Honorable Gene Dodaro  
Comptroller General of the United States  
U.S. Government Accountability Office  
441 G Street, NW  
Washington, DC 20548

Dear Mr. Dodaro,

After the devastation of Hurricanes Katrina and Rita, the federal government spent an estimated \$14 billion to complete the Greater New Orleans Hurricane and Storm Damage Risk Reduction System. The \$14 billion system includes the construction, or improvement, of 133 miles of flood risk management infrastructure, such as levees, floodwalls, floodgates and pump stations. Yet, engineering analysis indicates that, as early as 2023, this system will no longer sustain intended levels of hurricane storm damage risk reduction. According to the Fourth National Climate Assessment, climate change is expected to cause an increase in the frequency and severity of certain extreme precipitation events in different regions of the United States, and flooding rates are accelerating in over 25 Atlantic and Gulf Coast cities. Coastal risks may be further exacerbated as sea level rise increases the frequency and extent of extreme coastal flooding and erosion associated with storms, such as hurricanes and nor'easters.

Recent reports of costly levee breaks throughout the Midwest paint a dire picture of a flood risk management infrastructure never designed to withstand the river levels seen in the last decade. With increased flooding in the past few years, the levees are being tested more frequently than ever before. The situation has been exacerbated by wetter rainstorms, which are expected to worsen over time and have been attributed to climate change. Levees play a vital role in reducing the risk of flooding, and their failure can contribute to loss of lives or property. The U.S. Army Corps of Engineers (Corps) is responsible for planning, designing, and operating much of the nation's flood risk management infrastructure, including levees. However, in 2009, the National Committee on Levee Safety estimated that over 85,000 miles of levees are owned, maintained, or operated by nonfederal stakeholders, such as states, local governments, tribes, and private entities. According to the U.S. Geological Survey Circular 1331, the aging and poorly maintained levee infrastructure, combined with the growth of development in flood plains, has substantially contributed to increasing flood risk on a national level.

As sea level rises and certain extreme weather events increase in intensity and frequency, we as a nation will have to make decisions about prioritizing federal investments to enhance resilience against future disasters. To do so, we would like to know that taxpayer-funded flood risk management infrastructure, such as levees, are planned and maintained in a way that would minimize climate-related risks for various stakeholders, thus reducing overall federal fiscal exposure. In this context, we would like GAO to review the following:

- 1) To what extent, if at all, has the Corps integrated forward-looking climate information and its expected impacts into its study, design, planning, construction and maintenance of flood risk management infrastructure projects? In addressing this question, please include an assessment of how the Corps engages with non-federal government and other stakeholders to plan for, assign roles and responsibilities for the response to, and respond to extreme weather events and other climate change impacts.
- 2) To what extent, if at all, does the Corps provide technical assistance to non-federal stakeholders (on both USACE-constructed projects and on non-federally constructed projects) that operate and maintain flood risk management infrastructure projects to assess and reduce risks from the potential impacts of climate change?
- 3) What options should the Corps consider to increase the resilience of flood risk management infrastructure that is owned or regulated by the federal government? In analyzing each option, please provide an assessment of its strengths and limitations.
- 4) What challenges, if any, does the Corps face with budgeting, planning, constructing, operating and maintaining projects with impacts that may be exacerbated by climate change? How have these challenges changed in the past ten years? What barriers, if any, does the Corps face to any effort to modify, rebuild, or repair project damages following a major weather or other event associated with climate change to be more resilient to future events, rather than reconstructing them to their pre-event condition?

Thank you for your attention to this important issue. If you have any questions, please ask the members of your staff to contact Michal Freedhoff and John Kane on the Committee on Environment and Public Works staff at [Michal\\_Freedhoff@epw.senate.gov](mailto:Michal_Freedhoff@epw.senate.gov) and [John\\_Kane@epw.senate.gov](mailto:John_Kane@epw.senate.gov), or Radha Adhar on Senator Duckworth's staff at [Radha\\_Adhar@duckworth.senate.gov](mailto:Radha_Adhar@duckworth.senate.gov).

Sincerely yours,



Tom Carper  
Ranking Member  
Committee on Environment and  
Public Works



Tammy Duckworth  
Ranking Member  
Subcommittee on Fisheries,  
Water and Wildlife