

GAO Highlights

Highlights of [GAO-20-24](#), a report to congressional requesters

Why GAO Did This Study

Human health and well-being require clean and safe water, according to the Water Research Foundation. The Fourth National Climate Assessment states that the potential impacts of extreme weather events from climate change will vary in severity and type and can have a negative effect on drinking water and wastewater utilities. GAO's previous work on climate change and resilience to extreme weather and disasters has shown how the federal government can provide information and technical and financial assistance to promote and enhance climate resilience. In 2015, GAO reported that enhancing climate resilience means taking action to reduce potential future losses by planning and preparing for climate-related impacts, such as extreme rainfall.

This report examines federal technical and financial assistance to utilities for enhancing climate resilience, and options experts identified for providing additional assistance, among other things. GAO reviewed relevant federal laws, regulations, and guidance from four federal agencies—EPA, FEMA, HUD, and USDA—and interviewed federal officials, representatives from 15 water utilities selected for diversity of size and geography, and 10 experts selected to represent different views.

What GAO Recommends

GAO recommends that EPA identify technical assistance providers and engage them in a network to help water utilities incorporate climate resilience into infrastructure projects. Also, Congress should consider requiring that climate resilience be considered in planning for federally funded water infrastructure projects. EPA neither agreed nor disagreed. GAO believes the recommendation is still warranted.

View [GAO-20-24](#). For more information, contact J. Alfredo Gómez at (202) 512-3841 or gomezj@gao.gov.

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WATER INFRASTRUCTURE

Technical Assistance and Climate Resilience Planning Could Help Utilities Prepare for Potential Climate Change Impacts

What GAO Found

Four federal agencies—the Environmental Protection Agency (EPA), the Federal Emergency Management Agency (FEMA), and the Departments of Housing and Urban Development (HUD) and Agriculture (USDA)—provide technical and financial assistance (e.g., loans and grants), to drinking and wastewater utilities.

Technical assistance. EPA provides technical assistance to drinking water and wastewater utilities to enhance their infrastructure's resilience to climate change. However, according to EPA officials, EPA's program is small and cannot assist utilities nationwide. All of the selected experts GAO interviewed stated that utilities need additional technical assistance on an ongoing basis to manage climate risks, and most experts said that organizing a network of existing technical assistance providers, including federal and state agencies, universities, and industry groups, would be needed to provide such assistance. Under a presidential policy directive, EPA is to work to enable efficient information exchanges among federal agencies and to help inform planning and operational decisions for water and wastewater infrastructure. By identifying existing technical assistance providers and engaging them in a network to help utilities incorporate climate resilience into their infrastructure projects on an ongoing basis, EPA would have better assurance that climate information was effectively exchanged among federal agencies and utilities.

Financial assistance. Federal agencies have taken some actions to promote climate resilience when providing financial assistance for water infrastructure projects, but agencies do not consistently include the consideration of climate resilience when funding such projects. Most selected experts suggested that federal agencies should require that climate information be considered in the planning of water infrastructure projects as a condition of providing financial assistance. Moreover, representatives from several utilities said that such a requirement could be an effective and feasible way to help enhance utilities' climate resilience. A requirement would ensure that utilities consider climate resilience in planning for water infrastructure projects and potentially limit future fiscal exposures. For example, from fiscal years 2011 through 2018, the federal government provided at least \$3.6 billion in disaster recovery financial assistance for drinking water and wastewater infrastructure related projects (see figure).

Relocation of Iowa City's North Wastewater Treatment Facility Because of 2008 Flooding



Source: Iowa City Public Works. | [GAO-20-24](#)